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CONTENTS

05.17

NEWS, VIEWS & INSIGHTS

- 04 Industry news & events
- 14 International Focus
- 19 **Future Watch:**
Offsite for sore eyes
- 21 **Ask the Architect:**
Eric Carlson of Carbondale
- 23 CPD Focus
- 24 Appointments & news
- 38 Vision show preview
- 43 **Roofing, Cladding & Insulation**
Showcase

PRODUCTS

- 40 Planning & design
- 42 Groundworks
- 48 Structural elements
- 49 External envelope
- 54 Insulation
- 54 Heating, ventilation & services
- 58 Interiors
- 70 Accessibility
- 75 Safety & Security
- 75 Landscaping & external works
- 83 Classified & directory

PROJECT REPORTS

- 27 **A sculpture in straw**
James Parker reports on a new visitor centre in Denmark designed by architect Dorte Mandrup to provide a historic affinity with its protected coastal location, while also offering some strong new design statements of its own
- 33 **A silver ray of regeneration in Abbey Wood**
In a quiet corner of south east London, a unique-looking new transport hub is set to transform rail travel and regenerate the area it serves, writes Ray Philpott

FEATURES

- 49 **EXTERNAL ENVELOPE: BRICKS & BLOCKS**
Renewing the bond
From the spiky Stirling Prize-winning Newport Gallery to sensitive restorations and new build schemes, architects continue to reinvent brick in their designs. Jason Hughes examines the trends
- 61 **INTERIORS: DOORS & HINGES**
Better safe than sorry
Door closers may not define an interior design, but their clear impact on safety and aesthetics should convince architects to think twice before specifying them
- 71 **ACCESSIBILITY**
Delivering the fully accessible dream
Alastair Stannah, managing director of Stannah Lifts looks at the development of accessible lifts over recent decades and options now available to specifiers
- 77 **LANDSCAPING & EXTERNAL WORKS: EXTERIOR COATINGS & PAINTS**
Turning a greener shade
James Parker spoke to Peter Howard of Dulux Trade to find out how the firm is attempting to get a clear message to specifiers to drive use of sustainable paint alternatives, and whether the industry is on board

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FROM THE EDITOR



Since the somewhat surprising (or not) announcement of a general election by Theresa May, unsurprisingly the debate and political sparring has mainly been around the subject of Brexit. This election, whether Labour likes it or not, is going to be decided based on who we think will provide the best result from Brexit. And the exit polls are likely to be as useful as the Referendum itself when it comes to having any idea of what is in store.

The resulting shadow boxing is part of the problem the parties are having, regardless of how 'clear' they want to seem, because nobody knows quite what we will be up against. There are few things that are certain – one is the fact that the Government has been hastily assembling negotiating teams, but now EU ministers have decided it will only get to do 'real' negotiations once the election's over. Of course if the highly unlikely scenario happens, and the Tories don't win, even with this added breathing room Labour's going to have a torrid time getting its act together, as it will need to pursue Brexit having explicitly backed it.

Despite the dominance of social issues around Brexit, Labour has recently however come out with something that resembles a policy on a construction sector issue, which is refreshing on both counts. Shadow Housing Secretary John Healey promised "big steps" to deal with the UK's housing crisis, but at the time of writing the Manifesto had not appeared so there are few signs of detail. Labour has however pledged the 'big round number' of building 1 million new homes, which sounds similar to something former Conservative Housing Minister Brandon Lewis said – and then stopped saying. The difference is, Labour is also pledging that half will be social housing.

Healey made great play of the statistics Labour had gathered that its councils built 2,577 homes between 2010 and 2017, whereas in Conservative-led areas it was only 1,679, positioning Labour as the council house-building alternative. This should play well with a lot of voters, with a new generation unable to get on the housing ladder at all and glad for any options. With the average cost of a home now 7.6 times that of annual salaries, and wages barely keeping pace with inflation, many are struggling to raise deposits, and good ideas are urgently needed.

Home ownership is now a whopping 8 per cent down on its peak in 2003, and only 16 per cent of funding for new housing is directed to affordable. Maybe in the light of these daunting questions, the big one should be whether ownership should be the goal, or whether we move to a more comprehensive rental-based system such as other EU countries have successfully relied on for years. Post-Brexit, we need to still be open to good ideas.

Talking of good ideas, Materials, a new conference and exhibition which ADF is partnered with just made its debut at ILEC at Earl's Court in London. It saw a healthy number of architects visiting across the two days, who heard insights from a wide range of speakers on materials from concrete to composites, and CLT to brick. There was also a lively Brexit debate and a Meet the Buyer session, and so far the responses from exhibitors as well as visitors have been very encouraging. Roll on next year!

James Parker
Editor



ON THE COVER...

The Wadden Sea Centre is a new visitors centre with a sculptural straw roof in Ribe, Denmark, designed by architect Dorte Mandrup. Image © Adam Mørk

For more information, go to page 27



MUSEUM REFURB

National Army Museum refreshed by BDP

The National Army Museum reopened in Chelsea on 30 March following a three-year “regeneration” in which architect BDP played a key role.

The 1970s museum received an extensive refurbishment and a new extension by contractor Gilbert-Ash, with BDP providing architecture, engineering, lighting, acoustics, landscape and interior design services on the £23.7m scheme.

Tim Leach, architect director at BDP, said: “The creative adaptation of this major UK museum presents a wonderful opportunity to re-order the building, redisplay the collections and communicate

the significance of the army story to a wider audience.”

BDP’s work involved substantial re-ordering of the building to maximise access and improve visitor experience. Internally, a new, naturally-lit central atrium staggered across all floors creates “a dynamic space that opens up vistas into and through the depth of the building,” say the architects.

The project also provided 2,200 m² of exhibition space across six permanent galleries and a new temporary exhibition gallery. Education and learning spaces, cafe, retail and front and back house support spaces were also provided.

EPR Architects granted planning approval for Garden City

EPR Architects’ proposals for the redevelopment of the former Shredded Wheat Factory site in Welwyn Garden City have been approved.

The scheme will deliver 850 new homes in the heart of the town’s centre and will convert the original – now listed – 1920s factory buildings into new office space, retail and a creche as well as reinventing the 25 metre-tall grain silos for use as a boutique hotel.

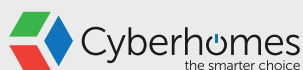
EPR Architects’ vision for this new urban quarter of Welwyn Garden City has been closely guided by Ebenezer Howard’s original Garden City principles but with a modern interpretation; greenery, open space and a sense of community feed through all aspects of the masterplan, offering a new approach to patterns of living and working that reflect today’s aspiration for a healthy lifestyle.

An integral part of the masterplan for this historic 20-acre site is the restoration of the modernist production buildings, bringing them back to their former glory. A new publicly accessible formal garden space will provide an apt setting for the reinstated grand entrance of Louis de Soissons Architects’ revitalised Production Hall building and associated grain silos, which will once again be celebrated as one of the main focal points of Welwyn Garden City.

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EVENTS

SEMINARS

A planning update: planning policy issues for practitioners

17 May, Leeds

www.architecture.com/WhatsOn

Conservation series - an introduction to building pathology

23 May, London

www.architecture.com/WhatsOn

FESTIVALS

Clerkenwell Design Week

23-25 May, London

www.clerkenwelldesignweek.com

London Festival of Architecture

01-30 June, London

www.londonfestivalofarchitecture.org

RIBA International Week

03-07 July, London

www.architecture.com/internationalweek

EXHIBITIONS

Imagine Moscow

15 March-04 June, London

www.designmuseum.org/exhibitions/future-exhibitions/imagine-moscow

TRADE SHOWS

Clerkenwell Design Week

23-25 May, London

www.clerkenwelldesignweek.com

Vision

06-07 June, London

www.visionlondon.com

100% Design

20-23 September, London

www.100percentdesign.co.uk

Healthcare Estates

10-11 October, Manchester

www.healthcare-estates.com



A BRIDGE TOO FAR

Mayor Khan pulls plug on Garden Bridge project

The Mayor of London Sadiq Khan has withdrawn guarantees of funding for the Garden Bridge over the Thames, throwing the project's future into doubt.

In a letter to Lord Mervyn Davies, chair of the Garden Bridge Trust, Khan said the continuation of the project, designed by Thomas Heatherwick with structural engineering by Arup, "will expose the London taxpayer to additional financial risk, with regard to the bridge's construction and its operation and maintenance."

Before making the decision, the Mayor "analysed the findings of Dame Margaret Hodge's independent review into the project, and assessed all the information available about the project to date."

The Mayor's Office said this was not a sudden decision by Khan, and that he has "repeatedly stated that he would not agree to any more of London taxpayers' money for which he is responsible being spent on the Garden Bridge project." He had "also made clear that he would not provide any Mayoral guarantees unless he was convinced that the project would not

lead to additional public expenditure down the line."

Khan's letter outlined a number of ways in which the project would represent additional financial risk. These included "increasing capital costs, the risk of the bridge only being partially built, and doubts over the establishment of an endowment fund to help meet future maintenance costs."

Sadiq Khan commented: "Having assessed all the information available to me, my view is that providing Mayoral guarantees will expose the London taxpayer to too much additional financial risk."

"With planning permission due to expire this year, many outstanding issues remain, including spiralling construction costs and doubts around funding maintenance."

"The funding gap is now at over £70m and it appears unlikely that the Trust will succeed in raising the private funds required for the project. I am simply not prepared to risk a situation where the taxpayer has to step in and contribute significant additional amounts."

1 ARRIVALS

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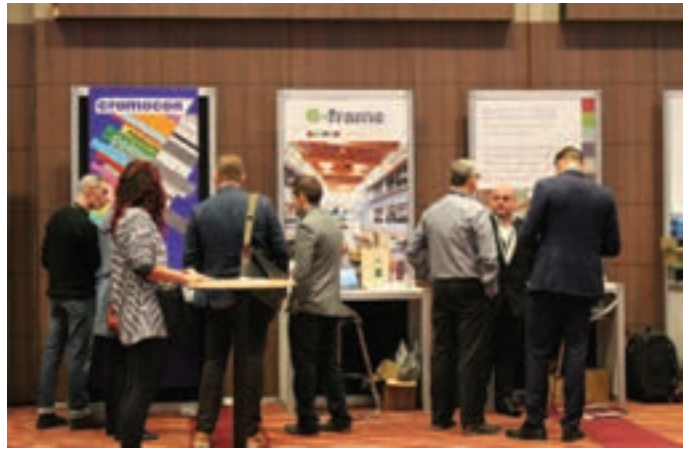
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CONFERENCE REVIEW

Material solutions to contemporary problems at Materials 2017

A new conference and exhibition, Materials 2017 made its debut at the end of last month at the ILEC Conference Centre, Earls Court, London, bringing together architects, specifiers, manufacturers, and suppliers from across the building materials sector.

The event organisers said: “The significance of materials is frequently overlooked by the larger trade shows out there,” adding, “we wanted to build a show that would revisit the fundamentals of architecture and construction – the materials that we physically build with.”

As Ruth Slavid, conference chair and architectural journalist and editor, said in the run-up to the show; “architects of course talk about form, space, and light, but in order to create those you have to create them with the materials – whether they’re structural materials or the building envelope.”

The conference was opened with a timely keynote from Andrew Boff, chairman of the London Housing Committee, who made a strong case for the potential of pre-fab methods of construction and innovation of materials in this area in disentangling the ongoing housing crisis affecting the capital. “Pre-fab doesn’t equate to bad quality, or bad design,” said Boff, adding, “London’s housing density needs to rival that of Osaka or Rio.”

Combining nearly 40 speakers from a

huge variety of backgrounds across academia, architecture, industry, and engineering, the two-day conference moved through the spectrum of architectural materials, examining their various characteristics and functionalities.

Following on from Boff’s keynote talk, Craig Liddell, Legal & General’s CLT (cross-laminated timber) solutions manager, gave a fascinating introduction to his business’ approach to modular off-site construction solutions. Liddell, making the sustainability case for CLT, asserted that “the entire population of Europe, which is 750 million people, could live in a CLT home and we would only require 25-30 per cent of Europe’s forests, being managed, harvested and used in exactly the same way it is today.”

Andrew Waugh of Waugh Thistleton architects, a London-based practice which specialises in the use of CLT, gave a compelling presentation referencing a number of their projects. Waugh (pictured above left) argued for the material’s contribution to a “new holistic architecture”, with the design and manufacturing process offering “a much more direct connection between the architect and finished project”.

The evening reception brought together FRIBA Daniel Moylan (co-chair, Urban Design London), John McRae (owner, Orms) Russell Curtis (director, RCKa), and Adam Parker (associate director, Greig &

Stephenson) to debate the impact of Brexit upon the architectural and construction professions. Curtis opened the debate, positing that “cultural exchange is of great benefit to creative industries, especially architecture.” McRae conversely argued for the opportunity that Brexit will offer in allowing the architectural sector to regroup, engage with, and influence governmental choices.

Complementing the conference, Materials 2017’s exhibition hall was not short of innovative product manufacturers at hand to discuss and advise. Pre-cast concrete staircases and patterned finishes, aluminium lighting products, thermally treated timber, and engineered technical films for facades were just a handful of the materials which took the floor. In addition, galleries from Arup and SCIN showcased some of the latest solutions across a variety of applications.

Waugh argued for CLT’s contribution to a “new holistic architecture” with design and manufacturing offering “a much more direct connection between the architect and the finished project”

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EXHIBITION

June opening set for Liverpool RIBA centre

The RIBA is to open a new “national architecture centre” called RIBA North on 17 June in a building on Liverpool Waterfront designed by Broadway Malyan.

The centre will be a “place for everyone to discover more about architecture with exhibition, talks and tours.” At the heart of RIBA North is the City Gallery, where visitors can learn more about Liverpool’s past, present and future, as well as urban development for the future. It includes an interactive 3D model which can be used by developers and architects to

RIBA North includes an interactive 3D model of the city of Liverpool which can be used by architects to hold public consultations

hold public consultations around the impact of future development.

The centre will also host a programme of temporary exhibitions and offer the opportunity to view the historic RIBA Collections, the “nation’s richest resource of architecture drawings, photographs and prints,” dating from the 15th century to the present day.

The opening exhibition “celebrates Liverpool’s long, often maverick, history of architectural ambition, and its willingness to take risks and consider audacious schemes.”

Jane Duncan, RIBA president, commented: “We are particularly proud that the centre will strengthen our cultural and creative offering in the north of England, and enable many more people to explore and understand the enormous impact that architecture and design has on our lives.

ELECTION

Industry urges clarity on domestic policies and Brexit



In the wake of Theresa May’s announcement of a general election on 8 June, key industry figures called for clarity on policies affecting the built environment sector.

RIBA president Jane Duncan urged Ministers not to overlook big domestic issues such as the housing crisis and sought assurances that UK architects would be able to access EU talent post-Brexit. She commented, “It will be important to hear that the next Government will seek to obtain the best deal from the Brexit negotiations, providing business certainty in the short, medium and long-term, opening new opportunities worldwide and ensuring that we can still access top talent through the continuation of a mutual recognition of professional qualifications and agreements with the EU.”

The Royal Institution of Chartered Surveyors’ parliamentary affairs manager Lewis Johnston said the Prime Minister’s decision to call a snap election would add further uncertainty. He commented: “We have largely moved on from initial negative reactions, but uncertainty continues to cloud the outlook and weigh on market sentiment. Today’s decision does very little to change that prognosis in the near term, and if anything, we are likely to see continuing deferral of major investment and hiring plans.”

RIBA president Jane Duncan urged Ministers not to overlook big domestic issues such as the housing crisis and sought assurances that UK architects would be able to access EU talent post Brexit

Johnston added: “It is now the responsibility of all parties to set out clear policy proposals...to ensure the UK can deliver the homes, infrastructure, factories, offices and major building projects that it needs in order to thrive.”

BSRIA chief executive Julia Evans backed the Prime Minister’s decision to hold new elections but highlighted the “specific benefits for the construction industry remain to be seen”. She added: “Before all the detailed talks begin with the EU and Government sets out its vision and objections for Brexit legislation, such a general election will demonstrate determination to ‘get the job done’.”

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BOOK REVIEW

The Re-Use Atlas

Duncan Baker-Brown/RIBA Publishing

By James Parker

This new book by architect, writer and environmental activist Duncan Baker-Brown could well become an important reference for designers who want to persuade their clients to move away from using, to re-using resources. With the current era now being termed the Anthropocene, because humanity is the dominant influence on the environment, the book is both timely and necessary.

It's hailed by big names such as RIBA President Elect Ben Derbyshire, who commented on the author's approach of "mining the Anthropocene" as "nicely capturing the concept that humans are moving beyond impacting on Earth's surface and atmosphere to its crust is "well-observed and game-changing." He added: "He is a leading thinker who also demonstrates the way forward in practice, which is what the best architects do."

Professor Michael Braungart (co-author of

Cradle to Cradle) said readers "will be reminded that anticipating how something could be re-used at the point when it is first designed is now everyone's responsibility." Mark Midownik, professor of Materials and Society at University College London called it "an inspirational book" which could "trigger a revolution in design."

The publishers term the book a "highly illustrated atlas," describing four distinct steps from a linear economy to a circular economy (recycle, reuse, reduce, closed loop). It features over 20 detailed case studies describing design exemplars from various sectors such ranging from architecture to fashion design, product design, interior architecture and urban design. The book intends to "show designers how they can successfully navigate and exploit the emerging field of resource management and the circular economy."



Clearly written and presented, it begins with the compelling reasons why architects, clients and in fact the whole of humanity has to consider resource use more deeply. The author makes a strong case that product design and construction as much as architecture needs to take end-of-life into account far more thoroughly than it does.

While the true closed-loop approaches highlighted in the book may seem out of reach to some readers, the many case studies presented in the substantial second part, 'Circular Inspirations,' allow professionals to see whether or not they could apply the concepts to their own projects. And the book doesn't present everything as a sunny world of unlimited possibilities, it includes useful lessons learned, such as from reusing second-hand timber.

The author has applied his knowledge from a long career of working on sustainability-driven projects, from Greenwich Millennium Village (working with Ralph Erskine) to Channel 4's *The House that Kevin Built* with Kevin McCloud, thought to be the first UK house with an A+ energy certificate, and the Brighton Waste House.

This information-packed, practical book is sure to provide an indispensable resource for designers wanting to engage fully with the circular economy.



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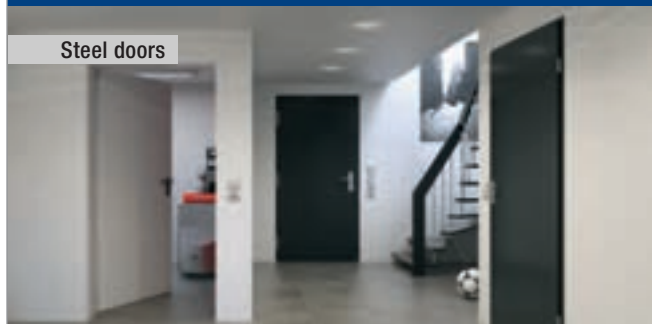
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ZŁOTA 44, WARSAW STUDIO LIBESKIND

Studio Libeskind with US-based real estate investment manager Amstar and Polish developer BBI Development S.A. have completed Złota 44, Europe's tallest residential building, in the heart of Warsaw. The 52-storey, 192 metre tower faces Stalin's Palace of Culture and punctuates the Warsaw skyline, with its arching form inspired by the wings of an eagle. The building's design has been carefully sculpted to follow the path of the sun, and allow for maximum daylight to enter units at all levels and reduce shadows at street-level. It sits among a "dense, historic urban fabric." At its apex is a multi-level penthouse offering panoramic views of the city.

Złota 44's glass and aluminum curtain-wall is constructed with a mixture of self-cleaning panelling and triple-glazed floor-to-ceiling windows arranged in an irregular pattern that "animate the surface with a play of light and shadow."

Ref: 95937



JAMEEL ARTS CENTRE, UNITED ARAB EMIRATES SERIE ARCHITECTS

The Jameel Arts Centre is a 10,000 m² three-storey multi-disciplinary space designed by UK-based firm Serie Architects. Located at the tip of Dubai's Culture Village, overlooking the Dubai Creek, the Centre includes more than 1,000 m² of dedicated gallery space, plus a 300 m² open-access research centre dedicated to artists and cultural movements of the GCC and wider Arab world. There are also flexible events spaces, a roof terrace (designed for film screenings and events), an outdoor sculpture area, and a cafe, restaurant and bookshop. Landscape architect Anouk Vogel drew inspiration from the desert biome ecosystem for the concept for the various courtyards that punctuate the building.

Ref: 38016



AARHUS SCHOOL OF ARCHITECTURE DENMARK VARGO NIELSEN PALLE

Vargo Nielsen Palle has been chosen as one of the winners of the initial "open idea" competition for the Aarhus School of Architecture. The new architecture school will build a bridge between the school and the city, fitted to the scale of the local activities. The site borders the "Green Wedge" of Aarhus, an open landscape reclaimed from industrial uses. The building steps down to meet the scale of this informal environment and is divided into smaller structures within the larger building. The building is scheduled to be completed in 2020.

Ref: 34450



HONG KONG INTERNATIONAL AIRPORT LESLIE JONES ARCHITECTURE

Leslie Jones has been appointed as the retail architect for the Hong Kong International Airport project, responsible for the future concourse's commercial design strategy. The firm's design solutions will ensure that space is effectively planned with retailers positioned to engage with high volumes of travellers. Leslie Jones was appointed alongside a project delivery team including the scheme's lead consultant AECOM, lead architect Aedas, Hong Kong, masterplanners OTC and advertising specialists Wildstone Airport. The development of Hong Kong International Airport's new runway and concourse will comprise reclaiming 650 hectares of land, with completion expected in 2024.

Ref: 97906



VENDSYSSEL THEATRE, DENMARK SCHMIDT HAMMER LASSEN

Vendsyssel Theatre is the first newly built theatre in Denmark in over a century. The 4,200 m² theatre and culture building is designed as a dynamic and multifunctional complex that includes a music hall, 'black box' rehearsal hall and a 430 seat flexible hall which includes an 'in-the-round' theatre. In addition, the building houses offices and a spacious lobby area with a cafe and a backstage area with a workshop and dressing rooms. The building appears as a composition of cubic blocks. The warm rusty red corten steel facades correspond with its surroundings during the day, while the LED backed frosted glass facades illuminate in various colours during the evening.

Ref: 88178



ZEEV RESIDENCE, LOS ALTOS HILLS, CALIFORNIA MALCOLM DAVIS ARCHITECTURE

The Zeev Residence by Malcolm Davis Architecture draws upon its Northern California context, embodying a casual California lifestyle through strong indoor-outdoor connections. Set among sweeping redwood and oak trees, the residence resembles a modern-day villa – “exactly the type of retreat the homeowners envisioned for their primary residence,” say the architects. Sustainable strategies were reflected early in the planning stages of the residence. Instead of demolishing the original house, Malcolm Davis and the homeowners opted to carefully dismantle the home in order to salvage timber and other materials, some of which were repurposed into the final home. They also incorporated “time-proven passive solar concepts” to maximum effect, such as southern exposures, thermal mass, cross ventilation for natural cooling and “carefully calibrated” solar shading along the generous southern overhangs. Other active sustainable features included greywater harvesting, whereby the bathing and laundry water are stored and repurposed to flush toilets and irrigate the landscape, as well as photovoltaic panels and solar thermal plans that preheat the domestic and pool water.

Ref: 69303

© Bruce Damonte

NEW ARRIVALS

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



DARREN CARTLIDGE BENOY

Benoy says it is proud to welcome Darren Cartlidge as regional operations director in Hong Kong. The newly established role will see Darren oversee the operational objectives of the firm across its Hong Kong, Shanghai and Singapore Studios.

Darren combines his expertise as a trained architect with almost 20 years experience in senior management roles with international design firms including TFP Farrells and Atkins. With specialist expertise in the delivery of tall buildings and large-scale iconic developments, his award-winning portfolio includes the Kowloon Station Development in Hong Kong, Loncin Tower in Chongqing, Vincom Landmark 81 in Ho Chi Minh City and the Home Office and Regents Place in London. Darren commented on his appointment: "This is an incredibly exciting time to be a part of Benoy's team. I'll be working closely with our design teams and clients to ensure Benoy's model of cutting-edge, multi-disciplinary design continues to deliver exceptional projects across the region."



CONSTANTINA TSOUTSIKOU HIRSCH BEDNER ASSOCIATES (HBA)

Interior design firm Hirsch Bedner Associates (HBA), has announced the promotion of Constantina Tsoutsikou to senior associate at the group's London studio. Constantina, who joined HBA in 2005, has been a key creative force overseeing many of the London team's most celebrated international projects. Her new role brings increased responsibilities, including the development of the imaginative concepts that establish the direction for each project. In addition to designing and managing her own work, she will also draw upon her hospitality expertise to provide guidance for other colleagues in HBA's London office.



MARK HOWARTH LK2 ARCHITECTS

LK2 Architects has expanded its team with the addition of a new senior architectural technologist. Mark Howarth brings with him almost 14 years experience in the industry, having previously worked with high street giant Marks and Spencer on some of its major flagship stores, overseeing extensions, interior refits and modernisation works. Mark said: "I had been keeping my eye on LK2 for quite some time, as I saw some of the exciting projects it has been working on through local media. Once I met the team, got to know them a little and understood what they were aiming to achieve, I knew this was a team that I wanted to be a part of."



CAROLINE WALMÉUS SKANSKA

Caroline Walméus has been appointed senior vice president at Skanska on a permanent basis. Caroline has been acting senior vice president since February and is reporting to Peter Wallin, executive vice president and chief financial officer on the board of the construction giant. "With Caroline's background from other operations and experience of working in different parts of the group, she is well placed to take a broader approach such as the responsibility for controlling," said Peter Wallin. Caroline was previously business controller for Skanska UK and Skanska ID, and succeeds Thomas Henriksson, who took on the role as CFO of Skanska Commercial Development Europe in February.



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FUTURE WATCH

Offsite for sore eyes

Often seen as the panacea for the housing crisis, is offsite construction methodology able to live up to its potential in terms of design quality as well as volume? Teo Lyubomirova spoke to four architects to hear their views

Imagine being able to create good quality homes in large volumes and at a pace previously unseen. A utopian concept or a dream solution to the UK's spiralling housing crisis? The Government is hoping for the latter as it promises to inject cash into schemes delivered by or incorporating 'modern methods of construction' (MMC), or modular offsite construction, as this burgeoning industry more commonly termed today.

However, although it has an attractive set of characteristics including speed of delivery, reduced on site hassle and greatly improved quality control, modular construction is still trying to shed its bad reputation of cheap 'prefabs' and poorly-designed high density estates built in the post-war period. This is partly why today industry experts, entrepreneurs and lenders baulk at saying the word 'prefabs' and prefer the tag 'offsite'.

Scratching the surface of standardisation

Factory construction and, increasingly, automation is at the heart of the offsite construction process, whether it is volumetric modules pre-fitted with beds, sinks or toilets, assembled and ready to transported and lifted into position, or panel systems prepared for on-site assembly.

According to Stuart Carr of Inglis & Carr, the main driver for success in this industry is expansion of the market and achieving

higher levels of automation. "We have to industrialise and standardise and creativity could flow from that," he says. "If you set the performance specifications and the design parameters, then you can invite creativity."

Pellings' Nicolas Maari shares this view: "There aren't industry standard module sizes," he says. When it comes to potential routes to mainstreaming offsite, he says: "Working closer with manufacturers to create standard protocols for modular is one way – and it's starting to happen".

However, Carr admits the billions required for a mass-scale expansion "just aren't there" yet. "If we were to try and industrialise in the same way the automotive industry has done, then we are biting off more than we can chew." He adds: "We need to know who the end user is," highlighting the industry's reliance on continual orders to justify keeping factories running.

The Government's £3bn Home Building Fund is intended to encourage firms to enter the MMC sector. Carr suggests it's "basically a cushion" made to protect businesses entering the market. "We are really scratching the surface," he says. "If you think about the cost of building 100,000 homes (the current supply shortfall), then £3bn wouldn't suffice, so this is really low scale funding considering the scale of the housing crisis."



ABOVE AND FOLLOWING PAGE

The Apex House student accommodation development near Wembley stadium designed by HTA Design is Europe's largest modular offsite-constructed tower

Architects need to work alongside manufacturers to ensure all elements are being built according to brief

Quality control

Beyond expansion and standardisation, just how far offsite methods are able to control construction quality is an aspect that has historically raised questions from lenders and clients alike, but perceptions are shifting, with the method now being sold on the basis of guarantees of quality. “I think we are moving past the reputational problems that prefabrication had and into an era where good quality is expected,” says Rory Bergin, partner at HTA Design – the practice behind some of London’s landmark modular buildings, including the 90 metre student accommodation facility Apex House in north London (pictured), which recently topped out after a reasonably swift 13-week lift and fit procedure.

“It’s much easier to guarantee the quality of a product made in a factory than it is on site,” Bergin claims, adding, “The building standards are much higher, we have much tougher standards for structural and environmental performance, we know much more about testing regimes and building design lives. The industry has learned a tremendous amount from the failure of building technology in the last 50-60 years; you have to be careful though that the products you use have been tested, accredited and meet the right standards.” Carr goes further: “Today you expect perfection, and that is down to manufacturing through the assembly line process in factory conditions. There’s absolutely no reason why building something in a factory should have a shorter lifespan than something delivered on site.”

Asked about the quality control procedures followed on HTA’s schemes, Bergin reveals this is no arms-length process for architects who instead need to work alongside manufacturers to ensure all elements are built according to brief, often with tests being carried out on a reference model. “It’s not a case of us doing some drawings and sending them off and then waiting for them to turn up (as modules); it’s a continuous conversation.” He admits once architects have nailed down the specification manufacturers become responsible for the structure – however, architects need to carry out the technical supervision of the construction process.

Design challenges

Within the design realm, flexibility and cost are closely linked. In education, where modular construction is often used to deliver whole facilities or extensions, it’s vital to have clarity on the design from the project’s inception.

This is because adapting a project for modular at later stages can prove costly. “It’s not really that adaptable,” says Maari, “so if you are looking to expand, then it’s difficult to use that system.” He adds: “Getting the thermal massing is also quite difficult – if you’re going for a well-ventilated building, it’s challenging to get all the shafts and holes in the right places unless you plan ahead.” He concludes, “There are interfaces that need to be traditionally done and spans that can’t be modular; these still have to be an adaptation between modular and traditional build.”

Flexible modular solutions must arguably be on the table however if offsite is to enjoy mainstream success in the residential sector. “Manufacturers recognise sites are not always square or rectangular; you have to be able to deal with different angles and



shapes and planning requirements that drive us towards more complex building shapes than heavily-engineered system would want,” claims Bergin. He says the type of construction doesn’t need to affect the quality of design either: “There are two approaches: to make the building ‘look manufactured’ or like a building where the fact that it’s been manufactured is more or less invisible. We want to make buildings that look ‘normal’ – we don’t try to emphasise their being modular.”

Combining offsite with different types of frame, such as cross-laminated timber, also calls for a degree of discipline, architects believe. As Bergin puts it, “I think good design comes out of constraints – I don’t think it’s ever come out of a blank piece of paper on an empty site and a complete freedom to express yourself,” he says. “The projects architects are most proud of are the ones in which they have had to use their ingenuity.”

Mainstream success?

So will offsite construction finally take off in housing? Bergin says that change will be driven by Government backing: “Things are moving quickly and the Government’s £2bn Accelerated Construction initiative is aimed at supporting that and giving people a strong reason to invest in factories.” Maari, however, remains sceptical about any large-scale success, despite admitting the use of offsite construction is bound to grow due to the skills shortage as well as the increased cost of materials being witnessed currently. He says: “I can see it working with social housing and the like but not in the mainstream residential market. It’s taken off in North America because they see housing as a product – there you can pick your home from a catalogue – this is not the ethos in the UK and I can’t see it changing.”

For Carr, targeting a specific sector, such as Build to Rent, is the way forward to drive large-scale adoption of offsite. “It’s predictable and tends to be funded by institutional investors and you’ve got a repetitive model; of course, you can apply creativity within that.” He highlights the fact that adopting standard criteria can lead to ‘enormous savings’ and create housing that’s environmentally friendly and constructed in a safe manner. Concluding, Carr says: “It seems to me modular is the logical conclusion of centuries of researching into how things work best.” ■

ASK THE ARCHITECT

Eric Carlson, founder of Carbondale, answers the questions on tackling the challenges of 'luxury interior architecture'



Eric Carlson of Carbondale

WHY DID YOU BECOME AN ARCHITECT?

I always loved to draw and ever since I can remember I've been cognisant about how places and spaces feel. I wasn't one of those people who knew what they wanted to do at a very young age, but when I began to design in university, I realised this profession was for me.

WHAT IS YOUR FAVOURITE PART OF THE JOB?

Seeing the final design come to fruition and succeeding in all aspects of the brief – aesthetically, architecturally, functionally, operationally, economically and in terms of image. I don't get involved in projects unless I am certain that I can succeed. The key is the client's determination to achieve exceptional results and their understanding of what the process involves.

WHAT IS THE TOUGHEST PART OF YOUR JOB?

The toughest part is producing the most luxurious work possible. The key to that is to constantly evolve.

For example, luxury brands are increasingly focusing on digital shopping to heighten the shopping experience for the visitor. This 'quest' to digitalise has been translated into adding a screen, or combining multiple screens or even a LED wall. I think it is important to consider the digital



Louis Vuitton store, Champs Elysees, Paris
© Vincent Knapp

components as creative tools and integrate them into the architecture.

WHICH RECENT PROJECT ARE YOU PROUDEST OF?

A highlight of my career has most certainly been creating the Louis Vuitton store on the Champs Elysees. When I first began working at Louis Vuitton in 1997, store

designs were composed essentially of standardised display counters and I was dubious that good architecture could be achieved because of the commercial constraints and the long tradition of a decorative, neo-traditional approach. However, with the brand's expansion and the need for bigger stores, combined with an inspired, open-minded president in



Tag Heuer Museum, Switzerland
© Jimmy Cohrsen

Yves Carcel, I found myself in a fertile environment for motivated individuals with ideas. After designing the first flagship store for Louis Vuitton in Osaka, the flood gates opened. Other luxury brands took notice and soon followed suit with buildings by Rem Koolhaas and Herzog and de Meuron for Prada and Renzo Piano for Hermes.

HOW DOES THE PRACTICE OPERATE ACROSS ITS TWO BASES IN PARIS AND SAO PAULO?

We work collaboratively and this provides us with a wide variety of projects to work upon. We wanted Carbondale to have outreach to South America and now we are looking onward to Central America too. In Brazil we have worked on projects such as the Piselli Restaurant in Sao Paulo's Main Plaza while the Paris office is currently

focusing on luxury schemes such as Longchamp on Bond Street, London.

ARE YOU LOOKING TO EXPAND INTO ANY PARTICULAR SECTORS?

Carbondale is known in the industry as a consummate expert in luxury architecture and design and we want to continue being high-end niche architects.

WHAT ARE THE KEY TRENDS IN LUXURY ARCHITECTURE?

Customisation and standing out as something different is the trend. This means we customise each project to correspond to the unique characteristics of each of our clients and do not repeat the same formal style for every project. The goal for me is to capture the client's identity within the design – if my projects were recognisable as

'Eric Carlson building interiors', then I have failed. So, each work is different and each provides a unique challenge.

CAN SUSTAINABILITY BE COMBINED WITH OPULENCE?

Yes, it can. Most of the brands we work with are all about sustainability and long-life, hardwearing products and we aim to address this in our designs.

IS IT DANGEROUS TO ALLOW THE CLIENT TOO MUCH FREE REIN – DO YOU FOCUS ON HELPING SHAPE THEIR VISION?

Without doubt, it's my clients that inspire me the most but we are fully trusted with the design process. We carry out an in-depth research on every aspect of the project, including the people involved, to define our design strategies. Fundamentally it is the client's unique characteristics, desires, and qualities that inspire us to create exceptional works, and our designs are most often an expression of their brand identity.

IS THE QUALITY OF INTERIORS AND USER EXPERIENCE MORE IMPORTANT TO YOU THAN EXTERIOR VISUAL STATEMENTS, AND IF SO WHY?

In luxury architecture everything is important, the big and the small. Often projects are separated into parts and dedicated to separate designers, but this happens because it's rare to find designers that understand how to design at many scales. Working at different scales was something I learned from my early professional experiences.

DO YOU ENJOY WORKING WITH THE CHALLENGES OF OLD BUILDINGS?

An old building is something to embrace. One of our latest projects was the Longchamp project in London's New Bond Street. This project was conceived as a fusion of the embodiment of the French Longchamp brand and the quintessential prestige of its London location.

HOW DO YOU SEE THE ARCHITECT'S ROLE CHANGING POST-2017?

Architecture will continue to embrace unique designs over standardisation. It used to be about the superstore, but now brands want individuality. For example, we are working with Dolce & Gabbana to design three projects – Venice, Montecarlo and Beijing – and each store design will be customised to correspond with its specific environment and location. ■

CPD FOCUS

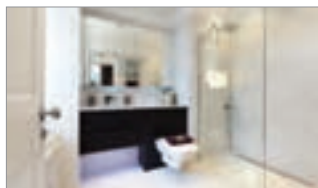
The latest CPD courses, seminars and documents for architects

STEP ON IT!



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 (Formally DDA) 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 session. All seminars are part of the RIBA core curriculum syllabus. 0161 627 4222 www.quantumflooring.co.uk

WETROOM & DESIGN SPECIFICATION



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

TWO NEW RIBA 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

SPECIFICATION OF HINGES



SIMONSWERK RIBA approved CPD on the *Specification of Hinges* will provide Architects with the technical knowledge for specifying the correct hinge for the right application. The presentation offers guidance on Door Specification, Legislation, Building Regulations, Fire & Safety in use, CE marking – MANDEC and the Equality Act. SIMONSWERK have over 35 years experience in the manufacture of high quality brass, aluminium and stainless steel hinges for doors, windows & conservatories. Ranges include the TECTUS system and the TRITECH solid brass hinge. 0121 522 2848 www.simonswerk.co.uk

CHIMNEY DESIGN AND RESTORATION OF FLUES AND DUCTS



Flue Liner Solutions are offering a RIBA approved CPD presentation entitled *Chimney design and restoration of flues and ducts*. This seminar will give an overview of chimneys, factors to take into account when designing buildings and an awareness of common problems. It will help architects to understand the following topics: chimney design and sizing; flue lining systems and suitability for different appliances and fuel types; remedial works to existing chimneys; maintenance requirements for chimneys as well as understanding chimney terminals and chimney fans. 07925 142789 www.fluelinersolutions.co.uk

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Lonza Wood Protection's DRICON and NON-COM Exterior fire retardant treatments for timber are designed to protect timber cladding and plywood panels for new build projects. DRICON is fully tried and tested for internal applications and NON-COM Exterior for external cladding projects. The one-off treatments provide a long term, no maintenance, built-in protection for the service life of the timber component. As well as offering a RIBA accredited CPD on fire protection for timber Lonza has launched its new specification focused website. 01977 714000 www.lonzafiretreatments.eu

CPD COVERS CHANGES TO BB101 IN SCHOOLS



For specifiers involved in the design of school buildings, natural ventilation specialist Passivent offers a CPD seminar covering the imminent changes to the Department for Education's Building Bulletin BB101. The new 'Guidelines on ventilation, thermal comfort and indoor air quality in schools' will see a number of key changes to the way air quality and thermal comfort are managed within school buildings. The new document will replace the current 2006 edition and will have significant impact on ventilation design strategies and system choices. As a member of the BB101 advisory group, Passivent is ideally placed to provide guidance on the changes and how to achieve future compliance. Its recently updated CPD entitled '*Natural Ventilation in Schools & Commercial Buildings*' will include the key changes to BB101 and provide advice on the range of ventilation strategies available to enable specifiers to determine the correct strategy at the early design stage of a project. The CPD will also explain the association between BB101 and relevant Building Regulations as well as the importance of computational modelling to ensure a robust ventilation strategy. The CPD is free of charge and can be held at the client's offices. To take advantage of the CPD, please contact Passivent at projects@passivent.com, via telephone or visiting the website. 01732 850 770 www.passivent.com/cpd

POLYPIPE GETS RIBA SEAL OF APPROVAL ON LATEST UFH CPD SEMINARS

Polypipe has been awarded RIBA accreditation for its latest CPD seminar on water based under-floor heating systems.

With the industry changing so rapidly, Polypipe understands the importance of supporting the next generation of heating and plumbing professionals. Through a combination of CPD sessions delivered within architect practices and installation focused training courses delivered at the Professional Development Centre in Doncaster, Polypipe is dedicated to equipping industry professionals with all the skills and knowledge they need to adapt to new technology and best practice.

Covering a broad spectrum of topics to help architects in the specification of water based underfloor heating systems, Polypipe's latest CPD has been assessed by the Royal Institute of British Architects, and is worth double CPD points.

Developed by Polypipe's experienced Product Managers and Training Facilitators, the CPD seminar is designed to expand knowledge on water based under-floor heating. From the aesthetic benefits, to the energy saving associated with water-based underfloor heating, participants will receive valuable training on a range of topics, including an overview of the latest generation of temperature controls.

Polypipe's CPD seminar also covers futureproofing by exploring the latest energy efficient technologies. For example, the use of ground or air source heat pumps with water based underfloor heating, and smart technology controls allows specifiers to create a heating system that's both comfortable and 'green.'

There is a common misconception in the industry that underfloor heating is only available for ground floors, however,



modern underfloor heating systems offer solutions for a variety of floor constructions from screeded and suspended to retrofitting over existing floors. And the systems are compatible with your choice of floor finish, including carpet, wood, vinyl and laminate as well as the traditionally specified tile finish.

Rachel Smith, Head of Marketing at Polypipe Building Products, says: "Following the launch of the Polypipe Professional Development Centre, these RIBA accredited courses

demonstrate Polypipe's commitment to improving skills and knowledge in the plumbing and heating sector.

"By offering a wide variety of information and training sessions, we are hoping to maintain the high skill levels within the industry and keep architects, specifiers and installers up-to-date with the latest UFH technology and best practice."

01709 770000

www.polypipeufh.com/RIBA-CPD

BBA certification for Harmer SML

Harmer Building Drainage part of Alumasc Water Management Solutions (AWMS) has been awarded BBA Agrément certification on its SML cast iron drainage for below ground applications, adding to its already certified above ground range. The certification covers the installation of

fouls and surface water pipes, couplings and fittings in domestic, commercial and public buildings. Harmer's below ground drainage was assessed for installed strength, water tightness, flow characteristics, resistance to chemicals found in domestic waste water, resistance to elevated temperatures, and durability.

01536 383844 www.harmerdrainage.co.uk

Office space part of the landscape

An architect's practice with an impressive track record of devising office buildings as multi-use developments incorporating public spaces has won the BD Office Architect of the Year Award 2017, sponsored by GEZE UK.

Fletcher Priest beat five other practices to clinch the coveted title after evidencing the strongest body of work in the office category. Kaz Spiewakowski, managing director of GEZE UK said "I was delighted to present Fletcher Priest with their winner's award. One New Ludgate is an excellent example of how office space can be created into a commercial multi-purpose development."

01543 443000 www.geze.co.uk

BAL expand specification team

BAL, one of the UK's market leaders for full tiling solutions, have appointed Paul Telfer as Specification Sales Manager for London and the South East. Paul will work with architects, designers, specifiers and contractors supporting them on M40/M20 specifications, providing project support

and delivering RIBA-accredited CPDs. With more than 15 years' experience working with market-leading building products manufacturers, Paul has a track record of working with architects and contractors to deliver high profile and high value specifications across the UK.

01782 591100 www.bal-adhesives.com

BSI recognises Ancon's commitment

Structural steel fixings manufacturer, Ancon Building Products, has had its commitment to business excellence further recognised with long tenure awards for two of the industry's key systems management standards. The awards, which were presented by BSI (British Standards Institution), mark over

20 years of continuous certification of Ancon's quality management system under ISO 9001 and over 10 years' tenure of ISO 14001 certification for its environmental management system.

0114 275 5224 www.ancon.co.uk

Sweet taste of success for SE Controls at former Terry's chocolate factory

The £38 million conversion of the former Terry's chocolate factory in York into 'The Residence', a development of 173 luxury apartments, is using a SHEVTEC® smoke control system from leading smoke and environmental ventilation specialist, SE Controls, to help keep residents safe in the event of a fire.

The original 27-acre (109,000 sq.mtr) site opened in 1926, but following its closure in 2005 it was subsequently acquired by Henry Boot Developments in 2013. This included the Grade II listed Art Deco style main chocolate factory that has now been transformed in partnership with specialist heritage developers and contractors, PJ Livesey.

As the one, two and three bedroom apartments, together with penthouses, are located over five storeys, it was essential that a smoke ventilation system was installed to comply with building regulations and other key legislation, including BS7346, BS9991.



The system uses staircase ventilation and four smoke shafts to ensure smoke can be vented effectively from escape routes, including corridors, the main lobby and communal spaces, allowing residents to evacuate safely.

At the head of each smoke shaft, a SHEVTEC automatic opening vent (AOV) louvre allows smoke to escape when triggered by the smoke and fire system sensors. A similar approach is used in each stairwell where the end staircases use AOV windows,

and central staircases are vented using roof access doors fitted with automatic actuators.

Designed to operate on a floor-by-floor basis, the detection of smoke within any of the protected corridors or lobbies directly triggers the system, which automatically opens smoke doors and AOVs to allow smoke to be removed from the affected area and keep escape routes clear. The system is controlled by a series of SE Controls OSLoop smoke vent zone controllers together with OSLoop Co-ordinators and alarm monitoring modules, dedicated to each smoke shaft.

Tamper proof manual control points (MCPs) on every floor allow the system to remain active with the head of shaft and head of stair vents staying open until fire service personnel reset the activated floor via the MCP. A full back up battery system is also incorporated to ensure that it can operate, even in the event of a power failure.

01543 443060 www.secontrols.com

MEDITE SMARTPLY announces major investment in new factory



In a significant move for the construction industry, MEDITE SMARTPLY, has signed a commitment as part of a consortium planning the construction of the world's first Tricoya® wood chip acetylation plant. To be built in Hull, the plant will produce the raw material for the manufacture of MEDITE® TRICOYA® EXTREME, the market leading high performance wood panel. The consortium is between MEDITE SMARTPLY, chemical technology group Accsys, venture capitalists BP Ventures and Acetyl industry leader BP Chemicals. The plant, due to come on stream in 2019, will produce Tricoya Wood Elements using Accsys' proprietary technology for the acetylation of wood chips and particles. These acetylated elements are used to manufacture the high performance MEDITE TRICOYA EXTREME Medium Density Fibre panels. The panels exhibit outstanding durability and dimensional stability which allow them to be used in exterior and wet area applications once limited to products such as concrete, plastics or metals. With the added benefits of light weight, sustainable raw materials and a guarantee of up to 50 years above ground and 25 years in ground.

01322 424900 www.mdfosb.com

Paint plant slashes lead times



Swegon Air Management's state of the art paint plant is already speeding up manufacturing lead times. The latest modernisation of its manufacturing facility in Bridgnorth, Shropshire was developed at a cost of £150,000 to support its Air Diffusion range of internal ventilation grilles and diffusers. Air Diffusion began manufacturing grilles and diffusers in 1972 and is now recognised as one of the UK's leading manufacturers of air distribution products. Until the start of this year, it was sending all products to an external paint plant for finishing, but by bringing the painting in-house it has dramatically speeded up the process and cut lead times for customers. With special 'bespoke' products, the improvement is even more dramatic as internal painting means the lead times can fall significantly and any defects can be remedied within minutes. The facility was designed with environmental protection in mind as it uses only powder paints avoiding any solvents, which can contaminate the water table. There are also no potentially harmful VOCs associated with the process. The plant is designed with a recovery system which recycles overspray, significantly reducing any wastage in the process.

01746 761921 www.swegonair.co.uk



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LRWA appoints its first CEO



The Liquid Roofing and Waterproofing Association (LRWA) has announced the appointment of Sarah Spink (MIOB) as its first Chief Executive Officer (CEO). With more than a decade of experience in the liquid roofing sector, Sarah will provide strategic direction to the association as it continues to grow, raising awareness of both the technical and financial benefits of specifying liquid applied waterproofing systems. As CEO, her primary role will be to enhance the support, training and guidance the LRWA already offers to its members and the wider industry.

0207 448 3859 www.lrwa.org.uk

Saint-Gobain launches calumenlive



Finding the right glazing products and evaluating the technical performances of your glazing specification has just got easier with the launch of CalumenLive by Saint-Gobain Building Glass. CalumenLive is a free online and responsive specification tool, giving you access to the information you need directly on your mobile device, laptop, PC, Mac or tablet. CalumenLive is the new and improved successor to Calumen II, delivering a more intuitive and fluid user experience for glass configuration and insulated glass unit (IGU) composition. The new interface also enables you to share your results faster.

www.saint-gobain-glass.com www.calumenlive.com

SIG Roofing announced as sponsor



The National Federation of Roofing Contractors is pleased to announce SIG Roofing as headline sponsor for this year's prestigious UK Roofing Awards. James Talman, Chief Executive at NFRC said: "As hosts of the Awards, we are delighted and excited to once again welcome SIG Roofing as our headline sponsor. This event as always, its aim is to recognise and reward outstanding standards of workmanship, technical excellence and safety across all aspects of roofing. SIG Roofing has been supporting the Awards for the last 10 years, and combined with their commitment to best roofing practice, they make the ideal sponsor."

info@sigroofing.co.uk

Saracen adds new names to portfolio



Saracen Interiors has announced a run of contract wins at the end of 2017's first quarter putting the award winning, workplace consultant on track to complete almost 100,000 square feet of fit out and refurbishment work in the coming weeks. All of the wins are first time clients for Saracen and were won in competition, with big brand names like Samsung, Call Credit and Giraffe Restaurants. The company will complete a fast track office fit out for Samsung in Brentford, while undertaking sizeable fit out projects for both Call Credit and owners of Giraffe, Boparan in London.

enquiries@saraceninteriors.com

**BUILDING
PROJECTS**
**WADDEN SEA CENTRE
RIBE, DENMARK**

A sculpture in straw

James Parker reports on the new visitor centre designed by architect Dorte Mandrup to provide a historic affinity with its protected coastal location, while also offering some strong new design statements of its own

The Wadden Sea is a vast coastal wetland stretching from the Netherlands to north western Denmark, providing an often dramatically bleak, flat landscape but also playing a vital role in supporting wildlife. As many as 15 million birds migrating south from the arctic tundra make what is often their only stop here to feed at low tide, and the area's importance has led to it being protected with UNESCO World Heritage Site status in 2014.

The new visitors centre designed by Danish architect Dorte Mandrup displays her practice's flair for using natural materials in new and often sculptural ways, but also a combination of creativity and subtlety to make the building sit happily in its context. Both of these traits were highly beneficial in realising the resulting striking yet subtle form, topped by an angled thatch roof, in its prominent seaside location a few miles from Denmark's oldest town, Ribe.

With the Wadden Sea having been home to large populations of Vikings, the new design is on one level an attempt to provide a more faithful interpretation of the Viking farmhouse-around-a courtyard typology than that offered by the previous three-wing centre built on this site in the 1990s. According to Dorte Mandrup the building that hers largely replaces was an unsuccessful mish-mash: "Everything was a bit out of proportion, and the red roof and white exterior of the brick buildings was not really in the tradition of the area. It was more like a city house." The architects were keen to provide something which was more in keeping with the area and provided a more fitting reinterpretation of the region's architectural heritage.





STRAW POLL

The roof, plus soffit and some sections of walls are clad in straw thatch to reflect local heritage and blend with the landscape

Mandrup says the client gave a “pretty open” brief in terms of the building’s expression when it launched a two-stage design competition. Mandrup’s proposal for an earthy, organic building using local materials which would as a result, “rise up from the landscape.”

The client, the City of Esbjerg, backed by some major Danish funding bodies, including AP Møller and Realdania, wanted to increase the centre’s exhibition and learning spaces by 50 per cent to attract visitors by making a “real exhibition area” as Mandrup puts it. In addition to the competition for the new building, the client ran a parallel competition for the exhibition design itself, won by Danish firm JAC studios.

Building form

In order to reuse some of the existing building where appropriate to maximise funds for the new extension, a partial new build solution was envisaged, “cladding the existing farmhouse with a new farmhouse” as Mandrup puts it. She says: “Part of this project was about being extremely functional, reusing existing areas such as the cafeteria and toilets.” In addition to a substantial new exhibition area, two new learning centres have been created, includ-

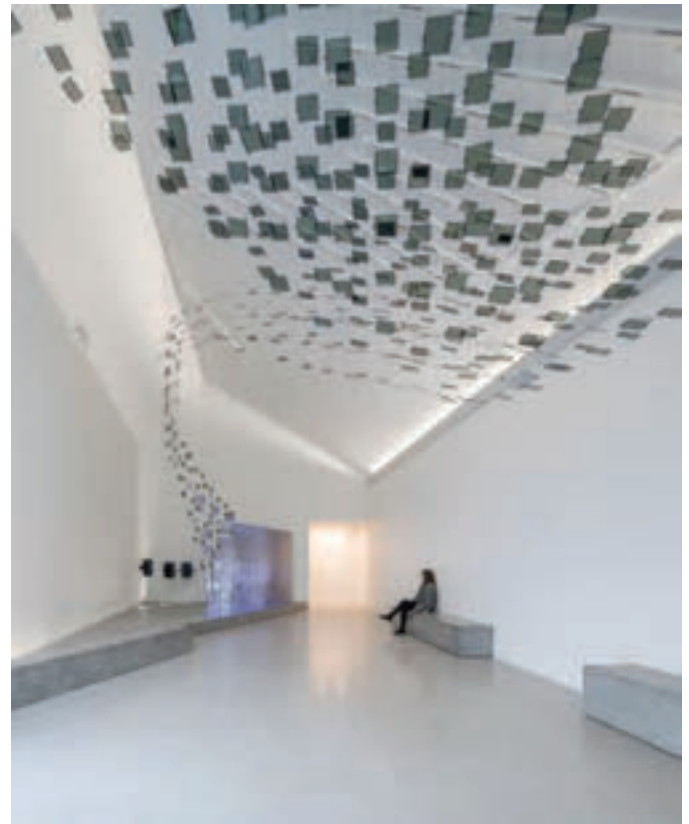
The centre displays the practice’s flair for using natural materials in new and often sculptural ways

ing laboratory-type facilities for analysing the Wadden Sea environment.

The new building is more substantial, adding a fourth wing to create a full C-shaped structure with 2,800 m² of space in total. It shelters and protects the courtyard and the front elevation much more successfully than the three previous, somewhat dislocated buildings. The pre-existing education building remains in the courtyard, making a partial ‘fourth wall’, and to the south of it is a new, larger education building connected through to the courtyard by a heat-treated pine boardwalk.

The building’s protective feel is crucial in what is a featureless and often very windy landscape, says Mandrup: “It’s an extremely open, very flat, you see the horizon everywhere. We wanted this protected outdoor area, but we wanted to somehow change that expression, as this is not a farm.”

The front elevation is the most striking, with the angled straw roof the dominant



feature, rising from relatively near to the ground at the eastern corner towards the main entrance, signalling it for visitors. This also has the benefit, aided by the long irregular quadrilateral-shaped overhanging soffit covering the entrance, of providing an interesting and dynamic overall look. Its unusual geometry breaks up what could have been a plain form with a welcoming as well as quirky shape, the soffit's gradient steepening as it deepens towards the corner of the glazed entrance.

As Dorte says, this covered reception area also has an important role in protecting visitors in what can be a harsh environment. "Making the coverage for waiting meant that if school parties are arriving by bus, they can wait under cover if it's rainy and cold" (which it often is at the Wadden Sea).

The main practical reason for locating the entrance under the gable was as a result of the key design goal of ensuring simple circulation in the extended exhibition areas. "We realised if you wanted to have good circulation you needed to enter at the gable, and then pointing out the entrance so that everybody could understand where to go to enter was really important," says Mandrup.

In the landscaped courtyard the roof does

the reverse, becoming wider and lower towards the entrance into the courtyard, in an attractive and interesting inversion which enhances the protective look of the building. The education buildings provide access to the courtyard directly enabling workers using the laboratory facilities to work outside in summer months.

The building has been designed to strict Danish performance standard, which are "similar to Passivhaus," according to Mandrup. It includes 35 cm of Rockwool insulation in the walls, and 50 cm in the roof.

Natural materials

Mandrup says she and the practice "like to show what a single material can do," and that a sculpted thatched roof is a great way to achieve this. "Using a material such as thatch makes the statement a lot clearer, and also makes more possibilities to work with a sculptural approach."

She believes it's one of the few new buildings in Europe to have a thatched roof, and this is a key part of meeting her aim of "using materials that were as natural as possible, to make it seem that the building was part of the landscape." The pitch of the roof needed to be over 35° to enable thatch-

INTERIORS

The exhibition design, overseen by JAC studios, combines natural materials such as oak with concrete and high tech exhibits, plus art installations

PRODUCT SUPPLIERS

Wood cladding, roofs and facades:

Robinia

Glazing: Krone Vinduer

Thatched, wood-cladded, roofing felt:

Icopal

Outer doors: Krone Vinduer

Inner Doors: Jeldwen, Multitek, Skydoor

Door handles and fittings: Ruko

Window frames: Krone Vinduer

Cement-floors: Weber design

Outdoor floor coverings:

Thermowood - Moelven

Acoustic plaster ceilings:

Fade Ceilings

System-ceilings: Ecophon

Sanitary fittings/ appliances:

Ifö, Børma

The straw for the roof was sourced in a nearby field, as it would have been done during the Viking era

ing, and this meant the existing education building could not be thatched.

The straw for the roof was sourced in a nearby field, as it would have been done during the Viking era. However, Mandrup says there was an express intent to avoid any kind of pastiche or overt attempt at authenticity, and to use the material for its own sake: “We were really trying to avoid trying to copy a farmhouse, we worked with straw because of its tactile nature and its volume. Trying to work with the specific materiality of the straw I guess makes it abstract.”

The overhanging soffit at the main entrance increases considerably in width towards the sliding door itself. Where it exceeds 40 cm, it is clad in straw thatch to a depth of 15 cm, onto a roof build-up. With the overhang revealed increasingly towards the entrance, the enticing impression is given of a single, massive thickness of thatched roof. A section of wall of the front elevation is also clad in straw, offering a tactile finish for visitors and a unified look.

When it comes to fire prevention concerns around using a thatched roof, a Sepatec membrane system, developed specifically for thatched roofs consisting of a glassfibre woven membrane, has been placed directly behind the thatch itself. There are also built-up compartments containing strips of Rockwool in the gap between the thatch and roof structure, stopping fire spreading between each compartment.

The remainder of the building is clad in dark grey untreated Robinia slats, which are also used over felt on the internal section of the roof covering the new exhibition wing. This provides a very harmonious counterpoint to the brown of the thatch, helping the building bed into its surroundings. Says Mandrup: “The colours of the landscape are muted – brown, grey and olive. The goal was to be as subtle as possible but at the same time give what is quite a large building its own character.”

The cladding timber, which comes from central Europe, is “extremely hard,” according to the architect, such that it requires no maintenance. It is pre-patinated to a black finish but will eventually turn a silver-grey, as will the thatched roof. Says Mandrup, “The straw and wood will take on the colour of the grey-green landscape around it.”

Mandrup is delighted with the aesthetics of the roof now it’s installed – its thickness and texture – but also the fact it was installed completely by hand (by 11 thatchers). “The

overhang's unusual, but it's all been done in the traditional way. You don't cut it to size beforehand, just trim it once on the roof. It's sewn at the top using needles – a very beautiful process.”

The materials used have also been proven over the centuries to be well used to a climate laden with salt, which is actually beneficial for thatch, she says. The thatch is naturally impregnated with salt from the air, and it not only protects the straw as well as wood against algae growth, it also “helps preserve it against fire.”

Exhibition spaces

Mandrup worked closely throughout the project with designers JAC studio and British designer Jason Bruges to ensure that the building “worked with the exhibition, not against it.” The exhibition spaces achieve this using a “respect for materiality and the surfaces,” and benefit from copious amounts of natural light, with large windows in all but one of the rooms. Mandrup says that

many of the white-painted spaces use daylighting where possible.

She continues: “They did a very good job of making a mix between using technology and an extremely tactile experience. A lot of the design is in oak and high quality, then there are projections and animated watercolours.” Due to the need to have no internal columns or beams, a steel frame was used to achieve the necessary open spans in the extension. One particularly striking feature which takes advantage of this openness is a large abstract ceiling installation representing migrating birds.

The centre has had more visitors in the few weeks since opening in early February than it was accustomed to seeing in a whole year. This is largely down to the handiwork of a well-regarded architect, her project team and those behind the construction. They have created something of unusual earthy beauty, which reflects and respects its landscape. ■

FACT FILE

Client: Esbjerg Municipality

Architect: Dorte Mandrup

Exhibition design:

JAC studios/Jason Bruges/

No Parking

Main contractor: Bo Michelsen

Floor area: 2,800 m²

A HAPPY CLIENT

The centre has had more visitors since it opened in February than it normally gets in a year

All images © Adam Mørk



Enhancing the atmosphere



The £16+ million new Windermere Jetty, Museum of Boats and Stories will deliver ideal conditions for both displays and visitors, in part through engineering excellence from Blackpool. **Gilberts Blackpool**, one of Britain's leading air

movement specialist, has provided ventilation louvres for the new museum, designed by Carmody Groarke as part of a RIBA international design competition for Lakeland Arts. Roofing and cladding contractor Lakesmere, has installed 28 of Gilberts' WHF75 high performance flanged ventilation louvres.

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Luceco lights Kuwait Airport

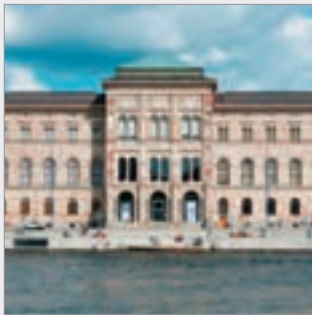


Luceco has recently relit the Departure & Arrival Gates, Immigration Counters and public areas at Kuwait International Airport, an established regional air hub in the Gulf. Luceco met the design brief which included energy efficient lighting

with low maintenance that would provide the airport with cost savings whilst enhancing the passenger experience through more effective lighting. Carbon Downlights are an ideal replacement for compact fluorescent downlights, offering running cost savings of more than 60 per cent.

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Howe Green supply "specials" for renovation of Nationalmuseum of Art, Stockholm



Howe Green supplied specially manufactured floor access covers for Sweden's premier art and design museum. The Nationalmuseum of Art in Stockholm is currently closed whilst undergoing an extensive restoration programme. The aim of the renovation is to create a more modern environment that will enhance the overall visitor experience whilst retaining the museum's architectural heritage. Howe Green's Swedish distributor, Elkington AB, was contracted to supply floor access covers for the project. As well as extensive knowledge of the range of standard access covers that can be supplied the team has a full understanding of the bespoke access solutions that Howe Green can design and manufacture. Howe Green's 7500 Series Medium Duty Floor Aluminium Access Covers were fitted as duct runs in the museum to provide easy and safe access to the cabling and services concealed underneath the floor. The majority of the covers were infilled with limestone floor tiles to provide a virtually invisible finish. The remaining units have a visible concrete finish. All the covers were supplied double sealed to ensure the highest performance and quality.

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ABBEY WOOD CROSSRAIL STATION LONDON

A silver ray of regeneration in Abbey Wood

In a quiet corner of south east London, a unique-looking new transport hub is set to transform rail travel and regenerate the area it serves, writes Ray Philpott

The eye-catching design of the railway station at Abbey Wood has led to it being likened to a vast silver manta ray by a number of observers.

Viewed even slightly from above, the analogy becomes clear, given the flowing, organic form of the curvaceous metal roof covering what is one of the major surface stations on the long-awaited cross-capital Elizabeth Line, which is being delivered by Crossrail Limited.

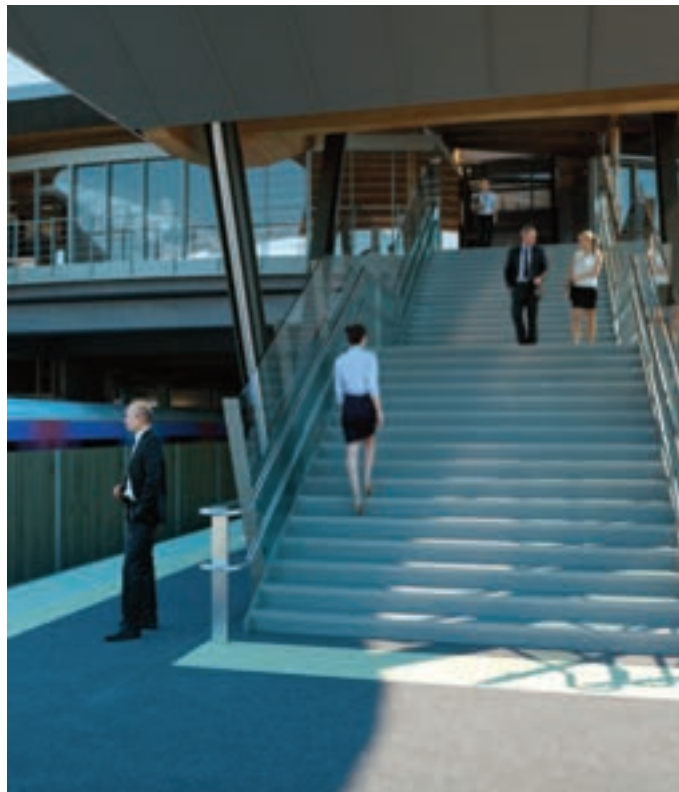
Surprisingly though, the station was not initially conceived as a definitive, showcase building in its own right. Rather, it is an architectural expression of practical transport functionality and the need to give Abbey Wood a strong civic heart providing a catalyst for further regeneration in the London suburb.

The spacious new station forecourt neatly integrates with Harrow Manor Way, the adjacent dual-carriageway bridge over the railway tracks bisecting Abbey Wood, to create an improved public transport interchange and make it easier for pedestrians to cross the lines.

Abbey Wood is one of 10 new stations being built for the multi-billion pound Crossrail project to create the Elizabeth Line, a new east-west railway. Running underground through the heart of the capital and above ground on the existing network, the 40-station route has four termini: at Reading in Berkshire and London Heathrow Airport on the western section, and Abbey Wood in south east London and Shenfield in Essex to the east.

Network Rail is responsible for the design, development and delivery of the line for Crossrail where it runs on or alongside



**ABOVE**

The analogy of a 'silver manta ray' becomes clear when the building is viewed only slightly from above

the existing network. In 2008 it appointed architects Fereday Pollard and engineering consultants Halcrow (now CH2M), to carry out feasibility studies for Abbey Wood station. In 2010 a design and build contract was awarded to the architects, main contractor Balfour Beatty and consultants WSP (previously WSP | PB) as part of a £130m scheme.

Two-level building

The project required the demolition and redevelopment of the existing 1987-built station, building a temporary replacement and changes to track layout that significantly influenced the new station's design. This included realigning the North Kent Line for existing 'through' services run by Southeastern and laying two terminating Elizabeth Line tracks running west to the new tunnel at Plumstead a mile away.

Working closely with Network Rail, Crossrail's own urban realm integration team and local stakeholders, the architects designed a two-level building to meet both operational and community needs.

On the upper level, the spacious open-air, pedestrianised forecourt is merged with the adjacent, heavily modified bridge and associated bus services. The forecourt leads into the wide, gently arched, east-facing

Architects Fereday Pollard designed a two-level building to meet both operational and community needs

main entrance giving access to the upper concourse and ticket hall, as well as dedicated retail areas, public toilets, staff accommodation and operational areas. Lifts and escalators take passengers down to two new, wide platforms featuring glazed 'gullwing' canopies, and a pair of platform footbridges with escalators to assist with interchanging.

Attractive, curvilinear timbers support the roofing, forming a distinctive design element across the upper level and stairways.

At the lower level a second entrance into another smaller ticket hall and ticket barriers, is situated on the north side (Felixstowe Road). The southern side of the station (Wilton Road) features a number of small, street-facing retail units and parking while taxi ranks and drop-off points are accessible from both roads.



On each side of the new station, a staircase and a pair of external glass-faced lifts connect the street level with the bridge level, enabling people to either cross the railway lines via the forecourt or to access the transport services.

Quality and regeneration

The station sits on the border of the Royal Borough of Greenwich and London Borough of Bexley and both plan to take advantage of potential redevelopment opportunities created by the Elizabeth Line. For example, Bexley has a 10-year master-plan for the South Thamesmead area to the north of the station that will see a large number of new homes built close by.

Jan Kroes, director at Fereday Pollard, explains: “While this is a high-quality station for a world-class railway service, the project is also very much about place-making and regeneration.”

“Both Bexley and Greenwich authorities have been working closely with Crossrail to rejuvenate the immediate urban realm around the station. Indeed, we see the station creating a much-needed area of civic and community focus, providing a distinctive sense of ‘place’ for Abbey Wood.”

Organically designed

By 2026 an estimated 10,000 people will be making journeys to and from Abbey Wood each day with another 10,000 using it as an interchange, a train calling every five minutes at busy times.

“Essentially the station has been designed to fit within the local context, around the new track layout and footfall projections,” says Kroes. “The organic roof shape has been designed around these passenger circulation areas and influenced by surrounding buildings and external lines of sight.

“While we’ve deliberately developed an exterior design that has a civic feel, we didn’t want a big boxy shape that has a negative impact on adjacent buildings, blocking out light and sight lines. So, it’s quite a low building and, in an area with significant plans for high-rise all around, that means the view down onto the station assumes greater importance.”

He adds: “The standing-seam, zinc roof continues over the edges of the building, wrapping round the soffits and the projecting canopies over the main entrance and the stairs. Looking down, some rather interesting patterns are created by the standing seams thanks to the complex geometry.”

A limited number of fritted glass

ROOF

The organic shape of the zinc covered roof follows the passenger circulation areas and is influenced by the surrounding buildings and external lines of sight



CURVILINEAR

Timber has a strong presence throughout – the dominant design feature internally is roof beams made from larch glulam. All images © Crossrail

skylights provide daylight penetration while limiting solar gain, with additional daylight coming in from the east-facing main entrance via a varying height planar-glazed elevation of transparent and opaque white glazing.

The low-level entrance and lift waiting areas also feature protective glass canopies, while the external street-level retail units sport canopies with circular glass lenses set in concrete.

Timber has strong presence throughout. Standing inside, the dominant, highly visible design feature is the wooden roof

beams made from larch glulam, which is an attractive structural timber.

Kroes says: “We used glulam because people can relate to the craftsmanship involved and it works well with the material palette of concrete, glass, zinc and brick. Furthermore there is little greenery or trees in the immediate area, so the timber beams bring in a strong natural element to the building. The beams run from the entrance right the way to the platform stairways, effectively drawing people from outside the station and guiding them through the building.”



Sitting on concrete pile foundations, the structure is largely a concrete frame up to the upper level, where the public areas are steel-framed. Large parts of the external sides of the building are clad with Frake, a thermally modified, highly fire-retardant hardwood, creating an interesting curtain-like effect and complementing the timber roof structure. Elsewhere a combination of real bricks and brick cladding completes the exterior finish. The interior of the building and concourse have a flamed granite paving.

Access

The two lift portals on the forecourt, linking it to the street 24 hours a day, are distinctly rectangular in contrast to the overall design. Kroes explains: “The shapes act as way-finding totems – curved roofs might imply these lifts only take you to the station.”

Way-finding was a major issue with the former station, but the designers are confident people arriving will clearly see where they need to go.

Liz Payne, line-wide integration architect for Crossrail, says: “The forecourt is ultimately designed for circulation between the station, bus stops and streets but we expect it to become a meeting point, so the urban realm design includes seating and it could accommodate pop-up stalls, too.”

Payne points out there will be easier and clearer access to more bus services from the new bridge-level bus stops, which have been designed by Fereday Pollard to reflect

the station architecture.

The station platforms are simple to access and navigate and obscured glass canopies provide daylight with integrated LED strip illumination at night. Interestingly, the gull-wing canopy design features a central rainwater gulley with downpipes integrated into Y-shaped support columns, a consistent, line-wide design language.

Liz adds: “The footbridge walls, escalators and stairs are glazed to give passengers good visibility across the facility, offering a greater sense of security and safety.”

In terms of sustainability the station is designed to BREEAM and CEEQUAL accreditations. The zinc roof finish, for instance, is expected to last over 90 years, far exceeding most roofing finishes.

Natural ventilation is used in both ticket halls but mechanical ventilation is required to support plant and electronic equipment including within the Crossrail signalling building located west of the car park. LED lighting is used throughout the station and a greater proportion of passengers are expected to access the station via the improved public transport links.

Kroes concludes: “Railway stations present many technical problems for architects and a good design is one which evolves out of resolving these issues.

“The success of Abbey Wood, aesthetically, operationally and as a civic asset, is a combination of thoughtful design and a desire to deliver quality from everyone involved.” ■

PROJECT DETAILS

Primary client: Crossrail Ltd

Contract manager: Network Rail

Architect: Fereday-Pollard

Main contractor: Balfour-Beatty

Civil engineer: WSP and Tony Gee & Partners

Timber roof installer: Wiehag

Roofing contractor:

Roles Broderick Roofing

Structural engineer: WSP and Tony Gee & Partners

Planning consultants: WSP with Network Rail

External brickwork: Forterra

External timber cladding: Levulux

Steelwork contractors: Britcon and DMG

Building services and lighting

contractors: Anderson Green

Ergonomics: CCD

Urban realm: Urban Movement

Vision 2017

An international outlook

Vision 2017, taking place at Olympia in June, will offer a global insight into the latest design, research, technology and materials as it partners up with the brightest experts and exhibitors from the UK and beyond



Taking place at Olympia London on 6-7 June, Vision 2017 will see the meeting of minds from a range of disciplines to discuss architecture, design, technology and fashion. Across two days, a host of projects and products from across Europe will be presented, with technological innovation at their core.

The free-to-attend event has partnered with various international trade authorities from countries including Belgium, France, Italy, the Netherlands, Luxembourg, Latvia and the Czech Republic. These nations will be represented at the event through a number of pavilions, each housing multiple participants. Live demonstrations and networking will provide opportunities to meet and exchange ideas with our continental counterparts.

Conference with a global reach

This international theme will be further explored through a carefully curated talks programme from researchers and practitioners from around the world. Dutch architecture practice UNStudio will reveal the findings of a new piece of research that explores the impact of the circular economy on the built environment. The Costa Rican rising star Benjamin Garcia Saxe will explain how he marries simple materials with innovative construction methods to create highly sustainable projects in tropical climates. Experts from the US and further afield will be speaking at the conference through a series of live link-ups, connecting the exhibition directly to every corner of the globe.

New London Architecture will return to the Vision programme with their

Vision 2017 is designed to educate and inspire, with international solutions to local problems

PechaKucha series, but this time they will invite speakers from their membership to discuss their projects abroad as part of International Dialogues. All the talks and presentations at Vision will take place under the umbrella topics: Materials Innovations, Technological Insight and Architectural & Design Evolution. The organisers hope this framework will help delegates rethink the built environment and the manner in which places and spaces can be shaped.

Encapsulating trends and research

The exhibitors at Vision will lead the way on ways to innovate, offering a wide range of products, materials and solutions as well as an insight into the complexities of the latest legislation and software research and development.

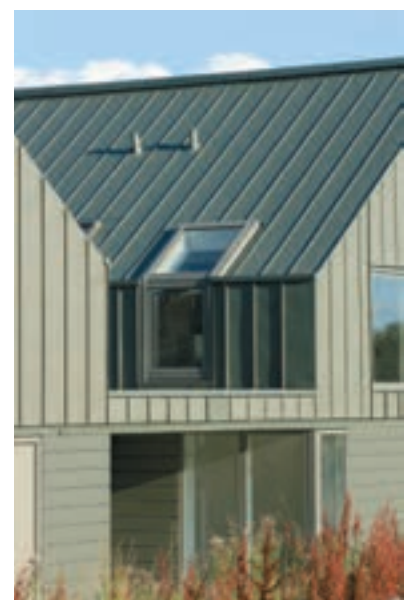
The international representatives will bring a broad range of new products, from intricate glass panels to timber structures. Examples include Argex, an eco-friendly clay from Belgium that can be used for building, horticulture and public spaces, such as the Place Saint-Lambert, a square in the centre of Liège, Belgium. Lumitrix, landing at Vision from the Czech Republic, can produce smart projection mapping for interior spaces as well as external equipment



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VISION STAND 50





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A network of opportunities

Partnering with key professional and organisations including RIBA, BRE, the London Festival of Architecture, New London Architecture and the Museum of Architecture, the exhibition is designed to educate and inspire, with international solutions to local problems. In addition, Vision 2017 will provide a 'match-making' service to help facilitate meetings between companies that can work together to create better buildings for the future.

The free-to-attend exhibition is open for registration and will take place at Olympia in Kensington, south west London, featuring established companies alongside the brightest start-ups. For more information about exhibiting at Vision, contact Elliot Gard or Andrew Brabazon today on 020 3409 0623 or visit www.visionlondon.com

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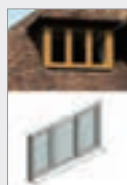
Rhodes & Partners new approval service



Structural engineers Rhodes & Partners have launched a new service which provides a valuable sales aid for manufacturers of timber buildings and similar structures. The company now offers a full design and drawings package which confirms the design quality and structural performance of timber-frame buildings. The verification process can be tailored to each manufacturer's individual requirements. In addition to the design of generic packaged or off-the-shelf structures, the service from Rhodes & Partners can be extended to include the site location, altitude and physical exposure of a specific installation.

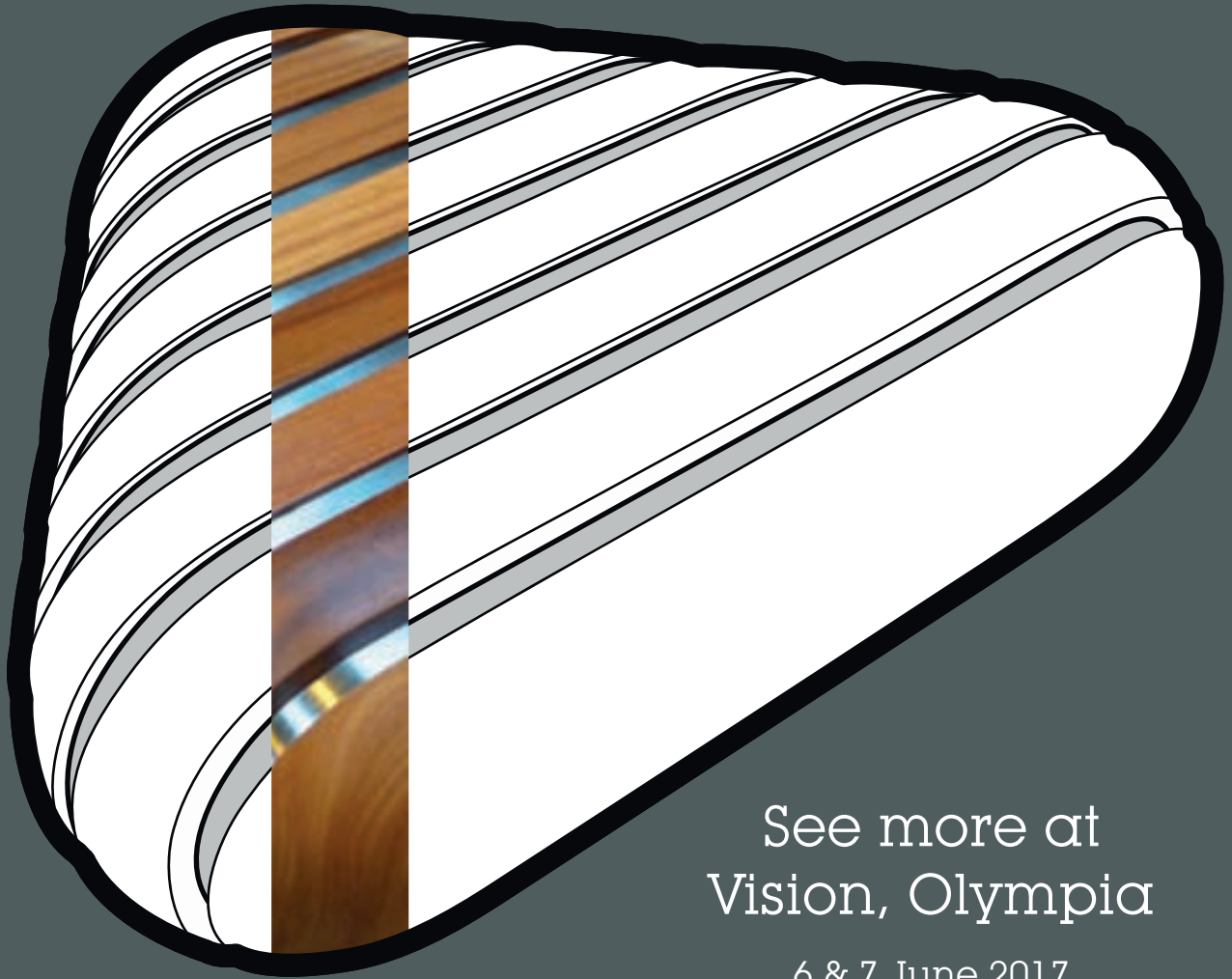
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BIM in a basket from Eurocell



Eurocell, has reimagined the way designers and specifiers access its BIM models. The result is the BIM Centre, where finding the right BIM models is quick and fast, and updates are delivered automatically. Users can sign up free in a matter of minutes and use Eurocell's search and filter tool to find the models they need. Rather than downloading models one-by-one, they all go into a BIM basket to be downloaded en masse at the end of the process. If specifiers can't find the model they need, the BIM Centre has a simple 'Request a BIM' function which will be handled by Eurocell's technical support team.

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SALTO launches product range on the National BIM Library



Building Information Modelling (BIM) will change the way in which buildings are designed, constructed and maintained, so together with NBS (part of RIBA Enterprises Ltd) SALTO Systems Limited have now launched a range of products on the NBS National BIM Library. The products include wire free electronic handle sets in a variety of styles, GEO cylinder, glass door lock, wall readers, a controller and lock cases. BIM combines multiple data streams which allow architects, designers and specifiers to generate a comprehensive virtual 3D model of a building. By including SALTO BIM objects at the specification stage, it allows for greater integration of detailed information that defines the product and geometry that represents the product's physical characteristics. The objects are available in Revit format and in the Industry Foundation Classes (IFC) and are free to access. NBS National BIM Library objects ensure consistency and work directly with various BIM design tools which can be seamlessly integrated into NBS Create software, at present no other BIM object library offers this service.

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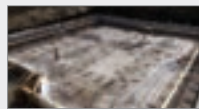
MEGAPRO SOFTWARE



FLOORSYNC: New software available allows clients to create an image of how the DURO EXCELLENCE decking will look on their own project. The exact colour swatch of EasyClick or EasyChange decking boards is created on the deck space. Either pick from our gallery of images or upload a photograph. Click the "Floor" icon and choose the preferred "DURO EXCELLENCE" colour, board direction and pattern. The deck will change colour, giving the user a visualisation of their project with DURO EXCELLENCE. **MEGAPRO:** MegaPro is estimating software which calculates and places the correct number and size of pedestals required for paving or decking projects. Users can send a PDF or the dimensions to Wallbarn of the deck space. The software then calculates the distances and area. The "calculate" button is pressed and the software lists the exact number and height/product code of each pedestal required. It will separate them by height/code and create a drawing of the layout. The drawing colour codes each pedestal type and creates a priced Schedule of products.

0208 916 2222 www.wallbarn.com

Barrier forms secure bond



Protection against groundwater ingress as well as gases and chemicals is offered by DualProof – a brand new two-layer durable watertight solution for below ground structures from Delta Membrane Systems.

This is a fully and permanently bonded, pre-applied membrane which is fitted prior to the fixing of steel reinforcement, and the concrete pour. It comprises a sealed two-layer flexible PVC membrane laminated with a non-woven polypropylene fleece. This fleece makes use of FiberTex technology which gives the necessary bond to the concrete, as it integrates into the concrete when poured.

01992 523523 www.deltamembranes.com

Flexible cover design provides options



Access cover and drainage product leader Clark-Drain has launched a B125 circular (CD 1649 KMB) and square to round ductile iron cover (CD 1649 KMB/SR) to locate on top of its 300mm diameter clear opening polypropylene inspection chambers. Ideally suited to

driveways, cycling areas, residential pedestrian areas and pavements the new designs combine a ductile iron cover with a polypropylene frame, to provide 12.5 tonne loading performance which is BSI Kitemark Certified to BS EN124.

01733 765317 www.clark-drain.com

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Spilt Milk is no match for Polypipe's Ridgistorm-XL System

It's not often that a manufacturer of drainage systems is asked to consider floods of milk within its system designs, but that's what Polypipe faced in one recent project.

When a historic dairy processor in Tewkesbury, Gloucestershire needed to expand its delivery yard to cope with rising capacity, Polypipe supplied its large diameter Ridgistorm-XL system to provide long-lasting protection from stormwater and spillages.

Gloucestershire remains one of most susceptible counties in the UK for flooding, so it was crucial that the yard expansion at Cotteswold Dairy incorporated an appropriate water management solution to store and attenuate any excess surface water.

Working closely with the project's Construction and cost management team, the main contractor, and consultant engineer from the early stages of the project, Polypipe supplied over 250m of Ridgistorm-XL piping to feed an engineered attenuation tank.



The entire system, sits beneath the lorry park and discharges stormwater into a local watercourse.

Traffic movement from the delivery fleet has the potential to lead to milk spillages mixing with surface water before entering the drainage system. Due to the ability of milk to corrode metal, a cast iron or steel system was unsuitable, and to mitigate the problem plastic was selected as the preferred material.

Polypipe's Ridgistorm-XL system was the preferred choice due to its robust and reliable

nature, along with a design life in excess of 100 years. Polypipe's ability to pre-fabricate the system off-site ensured that installation could commence immediately upon delivery, reducing time, labour and cost savings that traditional system, couldn't match.

The expertise and engineering capability of Polypipe's team was most visible in the project's Ridgistorm-XL attenuation tank. The tank incorporated a RIDGISTORM Check Vortex Flow Control Chamber, as well as 10 fabricated fittings, including 90° bends and double T sections to control the discharge of water from the tank at a consistent rate in to an existing watercourse.

The spigot design of the pipes and fittings made pipe alignment simple and fully compatible with the electro-fusion jointing method.

For more information please visit the website or call the technical team.

01509 615100 www.polypipe.com/wms

Sundolitt's improved performance XPS



Sundolitt UK, part of the Sunde Group, is a leading manufacturer of EPS (expanded polystyrene) products as well as XPS (extruded polystyrene) products via Group production in Norway and Germany, with an

outstanding reputation for quality, value engineering and customer service. Demonstrating high compressive strength, very low water absorption and improved insulating properties, Sundolitt's XPS is utilised for load-bearing and insulating protection for buildings and construction, in a wide range of applications.

01786 471586 www.sundolitt.co.uk

Wolfen products protect new build



Linden Homes has built properties in several prime locations throughout the UK. When it specified a flat roof for the new Greyfriars Quarter site in Gloucester, WJ Morley and Son proposed Wolfen's Cosmofin for its strength and performance. Cosmofin is created using a

flexible PVC-P single ply roofing membrane to allow for excellent weathering. All Cosmofin membranes are reinforced and available with or without a fleece backing. Therefore the application can be altered for a variety of projects, for example those where the roof is mechanically fastened, adhered or loose laid and ballasted.

0843 224 9690 www.wolfen.co.uk

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EQUITONE facade materials provide perfect solution for two educational facilities



Designed by architects for architects, EQUITONE fibre cement facade materials from Marley Eternit have been specified on two school constructions for their design flexibility, durability and creativity.

The EQUITONE materials were chosen as part of two separate developments located in Manchester and Burton upon Trent to add an individual and effective element to their exteriors.

The newly constructed primary school, located in New Islington, Manchester, has been completed with EQUITONE [tectiva] fibre cement facade material, while Burton and South Derbyshire University Technical College (UTC) has been transformed with the use of EQUITONE [natura].

The £4.3 million development of the New Islington School, led by Cassidy + Ashton Architects and Conlon Construction Ltd, was funded entirely by the Department of Education to provide primary school pupils with a permanent place to learn following the increase in students throughout the area. EQUITONE [tectiva] was specified for the project due to its low maintenance properties and to help meet the requirements of a modular build.

Speaking of the build, Frank McCabe, Associate at Cassidy + Ashton Architects, said: "As the construction period we had available was shorter than normal, this meant we needed resilient materials which could be installed within this time frame. This led us to the decision of adopting a modular build.

"Our brief was to create an aesthetic that represented a natural concrete panel, but we also needed a durable material with installation methods to match our chosen method of building. EQUITONE was the perfect material to help us achieve this."

EQUITONE [natura] has been specified as part of a remodel, refurbishment and new build extension project that places Burton and South Derbyshire University Technical College at the forefront of teaching for Systems and Production Engineering and Health Science.



The £8.6 million development was built by BAM Construct and designed by Bond Bryan Architects.

Gonzalo Carmona, Project Architect at Bond Bryan Architects, commented: "The renovation and extension of the project has created an elegant and sophisticated development that flatters and complements the proportion and style of the existing building.

"As a listed property, one of our key challenges was centered upon creating a new construction that added to and complemented the natural character of the original brick and stone structure. The red tone of EQUITONE [natura] complemented the brick of the existing building as well as the surrounding properties, creating a crisp, cohesive and contemporary construction.

"Another main part of the specification was to use materials that were low maintenance, whilst still in keeping with the style of a listed building. EQUITONE [natura] cladding was the perfect building solution due to its smooth texture and composition which reflects the brick tones of the property."

The architects chose EQUITONE to add a contemporary feel to the renovation, with the red hues marrying modern and traditional

aesthetics together. Bruce Raw, Director at Bond Bryan Architects, added: "The Burton and South Derbyshire UTC renovation is a fantastic example of how fibre cement materials can add a practical yet visually appealing element to a construction. The combination of old and new has really helped to make the UTC a fantastic development."

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

EQUITONE [natura] fibre cement material is available in a range of through colours. Offering a tactile, smooth surface that allows the textures of the fibre cement to show through.

All EQUITONE materials provide architects with the ability to bring inspirational designs to life through a range of colours, finishes and fixing options giving full creative scope.

www.equitone.com

Hotter shoes start off on the right foot with moisture mapping

The waterproofing on the roof of footwear manufacturer Hotter Shoes' head office and manufacturing facility in Skelmersdale, West Lancashire had exceeded its serviceable life and begun experiencing significant water ingress, requiring urgent remedial work.

Prior to any work commencing on site, Bauder undertook a comprehensive condition and moisture mapping survey of the roof area to help identify the exact extent and locations of water ingress, so that a fully informed decision could then be made to best suit the client's needs. As a result, the optimal solution was for approved contractor BBR Roofing to strip off the existing deteriorated and delaminating, oxidised bituminous capping sheet and overlay the underlayer with 12,500m² of Bauder's high quality, two layer bituminous system Bauderflex. This partial strip allowed for a quick and undistruptive installation, which was important to the client as they wanted the factory below to



remain fully operational throughout.

One of the major challenges for this project was the quantity of intricate detailing requirements, which is understandable given the sheer scale of the roof. As part of the necessary works redundant vents and associated frameworks also needed to be removed and replaced prior to new cladding being added to the perimeter and 69 of Bauder's

structural glazed units being expertly fitted to give essential daylight to the building's interior. Moreover, asbestos was found within the redundant vent apertures and therefore required specialist disposal.

Because the factory workers have variable shift patterns it meant that the roofing works programme had to be regularly changed and all deliveries needed to be timed as not to conflict with vehicles moving in and out of the facility. However, despite the logistical challenges encountered all works were completed on time and to budget much to the delight of the client. Upon completion an additional moisture mapping survey was performed to confirm to the client that the overlay was performing as specified and the roof was now completely watertight.

To learn more about Bauder's flat roof technical diagnostic methods visit the website.

01473 257671 www.bauder.co.uk

Timber Cladding - the natural choice



Canjaere timber cladding from the A. Proctor Group has been supplied for an exciting new housing development for property developer Eskdale Homes. Each of the houses at the Ballenlochan development in Pitlochry were built using Val-U-Therm®, a unique closed panel, factory insulated timber frame system with class leading thermal performance and

manufactured off-site by Scotframe Timber Engineering. Canjaere Classic Timber Cladding in the golden natural colourway, Tongue and Groove finish was chosen for its high quality and natural appearance.

01250 872261 www.proctorgroup.com

Kingspan enters the space age



When it came to insulating building services at the new Science & Technology Facilities Council RAL Space Development and Test facility (R100) in Didcot, it didn't take a rocket scientist to see that the fibre-free cores of Kingspan Kooltherm FM Duct and Pipe Insulation made them the outstanding choice.

Over 10,000km of Kingspan Kooltherm FM Duct and Pipe Insulation were specified for the numerous runs of service pipe and ductwork. The products' fibre-free insulation cores allow them to deliver outstanding energy performance.

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Kemper System takes centre stage at Greenwich Theatre

When the roof of a popular London theatre was no longer watertight, cold-applied liquid waterproofing specialist, Kemper System, provided the ideal solution.

Roofing contractors, Capitol Roofing Co Ltd of Blackheath in Greenwich, specified Kemperol 2K-PUR to refurbish the existing 500sq.m asphalt roof at the Greenwich Theatre, to stop water ingress into the four-storey building.

Thanks to its solvent-free and odourless qualities, Kemperol 2K-PUR was an obvious choice for refurbishment works on the occupied building. In addition, its quick installation benefits meant Capital Roofing Co Ltd, were able to meet their tight project deadline, and the works on the theatre were completed in time for the start of the festive show season.

Once Capital Roofing Co Ltd carried out extensive repairs and cleaned the surface they primed the existing roof surface then applied



the Kemperol 2K-PUR resin in a single wet-on-wet process. The cold-applied resin was rolled onto the roof with a reinforcement fleece laid directly in to the wet resin, immediately followed by more resin to ensure complete saturation of the reinforcement fleece. Once cured, the resin formed a seamless, elastomeric waterproof membrane that cannot delaminate, is UV stable and bonds directly to the substrate.

Because the Kemperol 2K-PUR system is ideal for complex detailing, this meant a new, up-and-over staircase was able to be installed whilst still providing a seamless liquid waterproofing solution. A Kemperdur anti-slip walkway for safe maintenance traffic was added to complete the waterproofing works. The installation team at Capitol Roofing Co Ltd completed the refurbishment of the Greenwich Theatre roof on time, to budget and specification.

Greenwich Theatre is a popular, local playhouse located in Croom's Hill, close to the centre of Greenwich in south-east London. The theatre first came to Greenwich at the beginning of the 19th century during the famous Eastertide Greenwich Fair at which the Richardson travelling theatre annually performed. Since then, it has seen the likes of Mia Farrow, Charles Dance and Susannah York perform.

019254 45532 www.kempersystem.co.uk

Grey is the new white!



There is an undeniable trend within the housebuilding market from white towards colour when choosing replacement windows, doors and roofline products. Grey is rapidly becoming the new white! At Freefoam we are seeing these market forces converting into sales and have seen a significant increase in orders for Anthracite Grey fascia and soffit during the last year. Architects, specifiers, builders and developers can now create a fully coordinated roofline for their clients by offering Freefoam's new Anthracite Gutter. Introduced last year, the Anthracite Grey rainwater range is an exact match (RAL No.7016) to the already popular fascia and soffit products and coordinates with many popular shades of window frames and door finishes. With a 77mm depth and a 116mm width, the Deep gutter is designed to manage the increasing levels of rainfall that are being experienced throughout the UK. Available with the full range of matching fittings including Union Brackets, Running Outlets and Hoppers, and manufactured using co-extruded PVC-U, the Freefoam Freeflow range offers a long lasting, leak free, no fade, low maintenance solution all with a ten year guarantee.

01604 591110 www.freefoam.com

Kingspan adds premium touch



A stylish development in the heart of London is the latest project to benefit from the excellent thermal efficiency of products from the Kingspan Kooltherm range. The façade of the new buildings combine brick, concrete and glass, drawing inspiration from the original red-brick hospital buildings and the 'white working buildings' of the area north of Oxford street. Kingspan Kooltherm K15 Rainscreen

Board was used to insulated the rainscreen elements of the façade whilst Kingspan Kooltherm K12 Framing Board was installed between timber battens on masonry sections of the external walls.

01544 387 384 www.kingspaninsulation.co.uk

ArcHaus receives a facelift



The exterior of this iconic building was suffering with high levels of damage, including salt ingress and excessive cracking to the render and brickwork. Salt Inhibitor was used as a 'masonry salt blocker' and applied to the exposed brickwork. Large

areas of the render were repaired with Restoration Render and the deep section repairs were completed with Remmers Betofix R2, a fast curing, high strength concrete repair mortar. OS Concre Fill and Impregnation Primer were also applied prior to the application of the final protective coating system.

01293 594037 www.remmers.co.uk

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Kooltherm K100 range expands

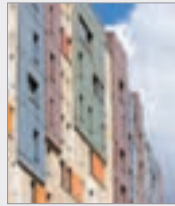


Kingspan Insulation has announced the launch of two new products to join their innovative new Kooltherm K100 Range, designed to deliver lower U-values with a minimal construction thickness. Kingspan Kooltherm K112 Framing Board and K107 Pitched Roof Board are the latest products in the range. Their advanced, fibre-free insulation core

has a thermal conductivity of just 0.018 W/m.K across all available board thicknesses, the lowest for any rigid phenolic insulation board. This revolutionary composition offers the freedom to design and construct buildings with inherently outstanding fabric performance.

01544 387 384 www.kingspaninsulation.co.uk

VMZINC® adds bespoke colours



VMZINC is well known for its distinctive PIGMENTO shades of red, green, blue and brown. It has now introduced five bespoke finishes – orange, beige, yellow, grey and purple, which can be manufactured in minimum three tonne quantities. The company will also now match any RAL reference from the Classic Palette for specific projects, a recent example being the grey produced for London's

Fulham Wharf development. PIGMENTO is not a painted finish and therefore virtually maintenance-free.

01992 822288 www.vmozinc.co.uk

Klober membranes for Grand Designs

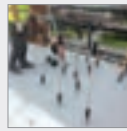


Klober membranes have been used in Carol and Paul Rimmer's zero carbon eco-home which featured in the latest series of Grand Designs. The 4,300 sq ft. timber frame building on the West Pennine moor has Wallint® 50, which has a vapour resistance of 250MNsg,

on the warm side of wall insulation to provide an air barrier. Permo® forte vapour permeable underlay has been installed on the cold side to enable moisture to escape from within the building and provide a weatherproof barrier behind the timber cladding. Its vapour resistance value of 0.15 MN/sg is well below the 0.6 MN/sg required for walls.

01352 706231 www.klober.co.uk/shop/product/wallint-50

Science flagship Pro-protected



A flagship innovation facility which will enable energy research and development is utilising advanced 'green' technology in its building. Willmott Dixon has refurbished the existing building on the University of Chester's Thornton Science Park to create a new, £multi-million Intelligent Energy

System Demonstrator. The project includes upgrading the five-storey building's roof. Sub-contractor Range Roofing has used Protan single ply polymer membrane, secured using a combination of traditional mechanical fix systems and the innovative SFS intec isoweld® 3000 system. In total, Range used 1200m² of Protan SE1.6mm.

01925 658001 www.protan.co.uk



New Simpson Strong-Tie catalogue

The 2017 edition of Simpson Strong-Tie's flagship catalogue is here. Alongside the UK's largest range of connectors for timber and masonry construction, sit over a dozen new products and several range extensions, including: Post Bases; I-Joist hangers; Angle Brackets; Structural screws and Masonry Ties. The catalogue is also brimming with installation advice and performance characteristics and safe working loads. Sales Director, Jon Head explains: "It's been a busy time for Simpson Strong-Tie, with all new ranges for Light Gauge Steel and CLT construction, as well as our significantly expanded nails and screws ranges. We've really pushed the boat out to increase our core range though, which, coupled with our rapid made-to-order service." The latest version is available from Simpson Strong-Tie on request and can be downloaded from the website.

01827 155600 www.strongtie.co.uk

Redland clay slate sets the standard

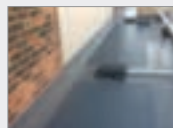


With a hark back to its heritage as the company that re-roofed London, Redland – one of the UK's leading manufacturer and supplier of pitched roof systems – is setting new standards in large format interlocking clay tiles with the introduction of the Westminster Slate. Offering efficiencies in

both materials and installation, the Westminster Slate delivers the quality and aesthetic of traditional clay tiles, yet more cost-effectively as its size and interlocking design mean that only 10 tiles are needed per m², compared to 60 for traditional clay plain tiles.

01293 666700 www.redland.co.uk/westminster

Icopal achieves top performance



The world famous Liverpool Institute for Performing Arts, has seen a major refurbishment and redevelopment; with three different systems from the range of Icopal Ltd having been selected to ensure the old and new roof areas will remain fully protected. The

larger, high level of roof, over an existing office building, had some 600 square metres of Icopal Monarplan GF single ply membrane installed as a warm roof build up. Then the lower, new-build section of the structure was treated with Monarplan FM, while Parabit Solo hot melt was employed as part of an inverted roof build-up.

0161 865 4444 www.icopal.co.uk

Renewing the bond

From the spiky Stirling Prize-winning Newport Gallery to sensitive restorations and new build schemes, architects continue to reinvent brick in their designs. Jason Hughes examines the trends

Brick may be one of the oldest construction materials, but its popularity hasn't waned and architects are constantly reimagining its application. Regardless of the project type, there's an increased focus on bricks' design quality and how their use can enhance the overall design of a scheme.

To address this demand, the market has developed a host of brick styles ranging from limewashed bricks for a softer appearance through to white glazed bricks that forge an industrial feel. Across continental Europe and the US, brick slips have enjoyed a booming popularity that has also caught on in the UK. Brick slips are thin slices of masonry that replicate the look of conventional bricks, and are ideal both for external facades, particularly for timber-frame construction, skin-to-cover render or previous brickwork, as well as for decorative use on internal feature walls.

There's also a thriving market for traditional handmade bricks that are increasingly used by designers looking to achieve an authentic period look; a contemporary rustic finish, or to highlight modern fittings and set their scheme apart from the rest.

There's still a demand for reclaimed bricks, but they can be hard to find in any specific quantity and difficult to preserve and transport – while there's no standardised testing, builders typically report 20 per cent wastage. In addition, reclaimed bricks can be expensive and a relatively lucrative target for thieves.

A viable alternative to antique bricks are kiln-fresh handmade bricks, which are a premium product but much more cost-effective; they carry a CE mark, can be frost resistant and are available on reasonable lead times.

Regional match

It's now possible to manufacture handmade bricks that match the area-specific types used across the UK: from London yellows,

to rich oranges in the Midlands, deep blues in the north and reds in the south. Richard Lomas, principal of Sheffield-based Lomas Architecture, commented: "Getting the colour and size of brick in the quantities we need is an important factor. Working across the north of England, we use many different styles and colours. Obtaining samples and choosing the closest match can be difficult, so the opportunity to source as many new handmade bricks as we need, knowing they will be exactly what we want, is a real advantage."

Textures also vary according to the period of the brick, the area it's from and even its position on the building. In some regions, facade bricks are smoother than those used on the rear and side elevations. Brick sizes can also be locality-dependent, from standard 2¾ inch to the 3 inch bricks popular in the north and Midlands. In the years before 1965, all bricks were imperial sizes, so it's important to use an exact match when extending or refurbishing a period property. Brick blends of colours and types, or off-the-shelf or bespoke weathering and tinting, are additional options, which ensure new brickwork integrates seamlessly with the original.

In keeping with local character

Architects are also designing new-build projects with regionally-matched handmade bricks. This is essential for – but not restricted to – new developments in conservation areas, and doesn't necessarily mean a pastiche of old styles, but rather addresses planning constraints and places a focus the character of the area. Developers are increasingly adopting fresh approaches through which they can create developments that reflect local architecture, but also offer a modern twist through enhanced designs. For example, reclamation-style bricks mixed with floor-to-ceiling glass make a bold statement. A property instantly matches its surroundings, yet stands out for all the right reasons. Unusual combinations of bricks and mortar – such as London



Developers are increasingly adopting fresh approaches through which they can reflect local architecture but also offer a modern twist

Choosing the closest match can be difficult, so knowing the bricks will be exactly what we want is a real advantage

Richard Lomas, principal, Lomas Architecture



A private Grade II listed manor house in east Kent used hand-made bricks for a large extension including an indoor swimming pool

yellow brick combined with a dark grey mortar – add an individual touch to a traditional design.

Translating trends to projects

The versatile application of bricks has been demonstrated in recent projects involving Imperial Bricks. The owners of Fatto, an

Italian restaurant in Bahrain, wanted to re-create the look of a weathered urban industrial building. They used 50,000 Urban Weathered brick slips externally and internally to achieve the desired effect. In contrast, a private Grade II listed manor house in east Kent used hand-made bricks for a large extension, including a kitchen, bathroom, indoor swimming pool and traditional walled garden area. A combination of Reclamation Georgian and Country Blend bricks were used to blend the new building with the existing home.

The Master's House in Ledbury, Herefordshire is another illustration of how modern imperial-sized Country Blend bricks were used to repair and extend a listed building. During the Butler Hegarty Architects-led restoration, the fabric of the medieval building was restored in a way that matched the original brick walls. As a result of the refurbishment, the building was 'rescued' from English Heritage's 'Buildings at Risk' register and won three prestigious RIBA Awards including West Midlands Building of the Year 2016.

Jason Hughes is managing director at Imperial Bricks

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Customer 'secures' major developments



Valued VEKA customer M&M Windows has gained two impressive commercial contracts thanks to the company's commitment to PAS 24 testing. The Wigan-based M&M team believe that their company is the first in the industry to achieve PAS 24 on the VEKA's new M70

PVC-U profile system. The company partnered with hardware supplier ERA and glass suppliers Regency Glass to put their casement windows through rigorous testing to ensure they met the requirements of PAS 24 and Document Q.

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Dales diary of Eurocell enhancements



Eurocell – one of the UK's leading manufacturer, distributor and recycler of window, door, conservatory and roofline products – has reconfigured its popular Dales Collection range of composite doors to increase and improve aesthetic choice, security and resilience. First, the company

has introduced three new panel designs, the Elton, Hartington and Newhaven, which deliver 'on trend' farmhouse and contemporary styles. The three designs are complemented by six further glass patterns to further increase choice.

0800 988 3049 www.eurocell.co.uk

Rational windows help Crest Nicholson



Rational's high performance timber windows helped Crest Nicholson achieve Level 4 in the Code for Sustainable homes at Halo, Cambridge. Simon Watt, senior technical manager for Crest Nicholson said: "In order to achieve Code for Sustainable Homes Level 4, we predominately followed a Fabric First specification. We were in part able to achieve this by using Rational's AuraPlus range of with their whole window U value of 0.79W/m²K. This adequately achieved the energy efficiency figures we required to achieve our requirements."

01869 248181 www.rational.co.uk

Hueck UK brings new premium sliding door to market



Hueck UK has expanded its range of market-leading sliding doors with the launch of a new premium aluminium system to the UK market. Sitting alongside Hueck's existing Volato S and Volato M systems, Volato SLS 075 is a high-performance sliding door aimed at the high-end entrance door market. Hueck is one of Europe's largest manufacturers and suppliers of aluminium window, door and façade solutions, specialising in both standard systems as well as bespoke applications. Volato SLS 075 is available in a range of designs including single, double and monorail. It is also available in a triple track option, allowing all sashes to slide if required, providing an alternative to bi-fold doors for larger openings. And, like all products in the Hueck range, it is designed to integrate with other systems including the Lambda WS/DS 075 modular window and door systems and Trigon façade. It also offers a range of benefits to the end user including sleek aesthetics, easy operation and superior thermal efficiency and weatherproofing compared to other sliding door systems on the market.

01217 671344 www.hueck.com

Saint-Gobain PAM UK extends range



Saint-Gobain PAM UK has extended its range of cast iron Vortex roof outlets to include 880 and 450 angled outlets with flat and domed grates for flat roofs. The new range is available in three sizes with a 4", 3" or 2" BSP threaded joint, with a range of spigot adaptors including

concentric and eccentric to connect to smaller pipe diameters. Designed and manufactured for a long durable life, the cast iron flat grates are sheradised, the domed grates are polyester coated and the bodies of the outlets have a grey epoxy coating.

sales.uk.pam@saint-gobain.com

Schueco UK introduces slimline facade



Sustainable building envelope specialist, Schueco UK, has announced new developments to its unique, ultra-slimline FWS 35 PD panorama design façade system. Shown at BAU 2017, the enhanced system delivers even greater visual elegance and transparency, the option of sun-shading and

two levels of burglar resistance. With Passive House certification for the top Schueco FWS 35 PD.SI version, the range offers thermal insulation levels as low as 0.79 W/m²K and can accommodate double- and triple-glazed units from 22mm to 50mm thickness.

01908 282111 www.schueco.co.uk

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Schöck and Marble Mosaic team up for 345 precast balconies

Horizons is a recent addition to the skyline on the north bank of the Thames adjacent to Poplar Dock. It offers 190 private apartments with one, two and three-bedrooms, plus six penthouses. There are a considerable number of balconies involved on the development, so minimising any possible thermal bridging problems was crucial. The Schöck Isokorb structural thermal break comfortably met the necessary specifications and precast balcony specialists Marble Mosaic had a big part to play as well.

Marble Mosaic specialise in precast concrete cladding panels and structural units for new buildings. Joint MD Dennis Vittle comments: "We have been associated with Schöck projects for many years and Horizons required the balcony units to be integral with the main structure, insulated and fire-stopped from it. The Schöck Isokorb type K was the natural solution. There are 345 pre-cast balconies on the project which posed a number of challenges. There were standard



insulated balcony-to-slab connections and a number of downstand and upstand connections required. Also the precast columns were supported off the balcony slab at one end only, so there was a heavy eccentric shear load transfer. The agreed

design called for a combination of Schöck Isokorb types K and Q to ensure structural integrity with the frame, whilst avoiding any clashes with the concrete frame reinforcement".

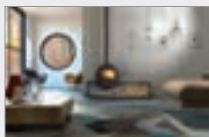
The Isokorb type K is a load-bearing thermal insulation element for concrete-to-concrete cantilever balconies, which transfers bending moment, stress and shear forces. The Isokorb type Q serves as a shear force transfer element for loggia's or column supported balconies with relatively low load expectations.

The range of Schöck Isokorb solutions guarantees totally verifiable performance standards and meets full compliance with the relevant UK building regulations.

For a free copy of the Schöck Thermal Bridging Guide and/or the Thermal Bridging Solutions brochure – contact the company or visit the website.

01865 290 890 www.schoeck.co.uk

DRU introduces Dik Geurts Odin

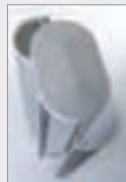


DRU has introduced a new wood stove under the Dik Geurts brand this spring. Odin is a circular stove with a multitude of installation options. It is available in two sizes, 100 and 120cms diameter and there are four different versions; a wall-mounted stove, a stove that is suspended from the

ceiling, a stove that is mounted on a 'plateau' and a 'tunnel' stove that can be viewed from both sides. Odin generates a stunning log fire with swooping, curved flames, which are controlled by the unique Dik Geurts 'Thermo-glide' air slide.

0161 793 8700 www.drufire.com

Marshall-Tufflex PowerPoles deliver



Marshall-Tufflex's sleek and modern power and data services solution, PowerPoles, have delivered the right mix of style, versatility and price for a Blue Chip manufacturing company's new headquarters in business and retail hub Logistics North, Bolton. Sophisticated and elegant, PowerPoles provided the ideal choice for the offices of the company's new premises, delivering power and data services to island

and non-perimeter work stations. Installed by W Portsmouth & Co from Luton, a total of 170 white double-sided Series 1 PowerPoles were fitted, together with RCD/MCB housing and accessory boxes.

01424 856655 www.marshall-tufflex.com

Vortice showcased innovations at ISH



From 14-18 March, Vortice Italy exhibited at the international ISH tradeshow in Frankfurt with new ranges of innovative products and services. Products on display reconfirmed the company's innovation, technological development and keen focus on both reducing

energy consumption and improving environmental comfort. New products demonstrated both high performance and energy saving features. Among many products showcased is the new Quadro Evo centrifugal fan which has low specific fan power, low noise and can be recessed or surface mounted.

01283 492949 www.vortice.ltd.uk

New angle elevates Skypod range



Building upon the success of the Skypod range of PVC-U skylights, Eurocell is launching its latest model – Skypod Acute. As the name suggests, the new addition features a steeper pitch: 35° in fact, a full 15° more than the current design. The new 35° pitch is visually

very different to the standard 20°, making it suitable for more commercial applications, where this pitch degree is better suited to larger, multi-storey buildings. This market tends to be dominated by aluminium products, so the arrival of the new Skypod provides an aesthetically pleasing and cost-effective alternative.

0800 988 3045 www.eurocell.co.uk/skypod-acute

What role does ventilation strategy play in providing a healthy classroom?

In spring last year a study from RIBA found that 1 in 5 teachers have considered quitting because of the condition of the school buildings they have to teach in, whilst over 90 per cent of teachers believe well-built and designed schools improve educational outcomes and pupil behaviour.

Can natural ventilation in schools really have an impact on the health and well-being of our pupils?

Natural ventilation and cooling guidelines in schools

The BB101 guide for schools in relation to natural ventilation requires the below approach:

- Significant need highlighted for natural ventilation and where appropriate simple, responsive mechanical ventilation to maintain air. It should be simple to operate and quickly responsive to allow air quality to be easily maintained.
- Thermal comfort and control over temperature. Thermal controls should be easy to use and quick to adapt to changing uses of space.
- Good acoustics. For effective learning, pupil engagement, and wellbeing.

Air pollution inside and out

One of the most serious indoor air quality risks identified is one over which building designers and occupants have limited control. Particles – predominantly products of combustion – increase the risk, and the severity, of heart disease and respiratory illnesses, and are blamed for many premature deaths. The main source of particulate pollution is traffic, especially in UK cities. In



addition to polluted air being brought inside, poor indoor air quality can also be attributed to many problems inside a building. Excess humidity causes dampness, rot and mould, whilst pollutants are known to be a major cause of health issues such as asthma and eczema. Stale air is also believed to lead to a loss in productivity and low morale.

One way to counteract outdoor air-pollution in schools near busy roads is to use a fully ducted ventilation system such as MVHR with extra fine filters fitted.

Benefits of improving ventilation and reducing CO₂

The researchers found that improving ventilation rates, reducing CO₂ concentration and increasing access to daylight in classrooms, improves pupils' performance in terms of higher levels of attention and concentration and lower rates of absenteeism. Better buildings, they are also good for the economy in terms of increased productivity.

Monodraught's MVHR systems are designed to simultaneously supply tempered fresh air to any built space ensuring the correct oxygen levels are maintained whilst expelling stale air. By increasing oxygen levels and reducing CO₂ levels, it is believed

that this approach can allow students and teachers to:

- Have more energy and a sharper mind, leading to better concentration
- Improve mental wellbeing
- Healthier blood pressure and heart rate
- Strengthen immune system and cleans lungs

To find out more about our ventilation solutions for schools and colleges including X-Air Windcatchers, Hybrid Thermal Mixing (HTM) and MVHR, have a look at some of our education case studies or please contact us to discuss your project.

01494 897700 www.monodraught.com



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Underfloor heating has never been more affordable and unlike bulky radiators it is completely hidden from sight and is more energy efficient, giving you the space to create luxurious heat without compromising interior design. JG Speedfit offers a wide range of UFH equipment to make underfloor heating simple & affordable.

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Whether building a new house, planning an extension or renovating a room, you can be sure with our huge range of systems we have the right solution for your project. All of our products are manufactured to the highest standards using the latest technologies and are compatible with conventional and renewable energy heat sources.

Save money by using less energy

Underfloor heating cuts heating bills and

energy consumption. It is more efficient and environmentally friendly than radiators, as it enables better heat distribution, operates at a lower temperature than conventional systems and is easily programmed to only heat rooms in use.

Add space, style and value to the property

Underfloor heating can add value to the property as it is considered a luxurious form of heat and therefore a home improvement. Our stylish wall mounted or portable, JG Aura heating controls add a touch of elegance to the way underfloor heating is controlled.

All-round heating control

As well as controlling underfloor heating, JG Aura can be combined with existing or new radiators. A single solution capable of controlling underfloor heating and radiators, enabling occupants to manage heat for different rooms.



Smart heating controls

Using the free JG Aura App occupants of a household need not worry about returning to a cold house or forgetting to turn off their heating when leaving. By turning a smartphone or tablet into a remote heating control, there is freedom to manage heating from anywhere, at anytime.

Bring your project to life

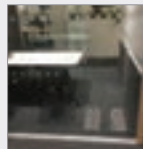
Our highly skilled design team is at your disposal to offer free CAD drawings and project cost estimate. They pay great attention to detail while designing the most effective underfloor heating solution for the property. They can also recommend preferred Speedfit Underfloor Heating installers or provide technical advice if you are looking to fit the system yourself.

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Fantiles boost airflow to meeting pods



AET Flexible Space, a leading provider of Under Floor Air Conditioning systems has supplied forty of its innovative low energy Fantiles for the flexible meeting pods at the Sky Central media campus in West London. The Sky Central building is the result of a multi-disciplinary collaboration of designers and engineers; including AL_A, PLP Architecture, Hassell, Arup and Mace. The design brief was to create a highly flexible, connected space with a focus on wellbeing. The result is a modern, safe, healthy and environmentally sustainable, BREEAM outstanding building, which is simple, intuitive and people-centric.

01342 310400 www.flexiblespace.com

Hybrid VRF named Product of the Year



Mitsubishi Electric is celebrating further industry success after its innovative Hybrid VRF (HVRF) solution was named Air Conditioning Product of the Year at the ACR News Awards 2017. The awards reward excellence and innovation in the air conditioning and refrigeration sector and

have been running for over 20 years. The Hybrid VRF solution is capable of simultaneous heating and cooling and because it uses water in a simplified two pipe design, there is no need to install refrigerant leak detection in occupied spaces.

www.mitsubishielectric.co.uk www.hybridvrf.co.uk

Interflow UK offers a high level of expertise in the distribution and installation of specialist service ducts

Interflow UK is a specialist distributor of duct sealing systems for utility services offering a high level of expertise to developers and specifiers for sealing against water and gas ingress around service entries in basements and high-rise buildings.

Products from pioneering manufacturers including DOYMA, FRANK, Koox and HKD are test-certified and proven; they are maintenance-free with extended life-time warranty. Interflow's technical team assists with product selection and design advice; an installation service is also available when required.

London Wall Place, a 500,000 sq ft scheme designed by MAKE Architects, includes two landmark office buildings with extensive landscaped public realm. Interflow has provided the DOYMA Curaflex pipe sleeve 6000 and associated gasket seals.

DOYMA Curaflex® pipe sleeve 6000 used at London Wall Place



- The inside face of the sleeve provides an optimum sealing surface for the elastomer of the Curaflex® gasket insert
- Triple corrosion protected steel pipe sleeve for hydrostatic loads with integrated fixed and loose membrane clamping flanges
- Installs flush within the formwork

London Wall Place



Related products in the range

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DOYMA Curaflex gasket



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Nova Uno/T & Nova Uno Broad/T



Retrofit installation.



Sealing penetrations through twin & ICF walls

Nova Uno Senso & Nova Uno/MS



Sealing twin-wall ribbed ducts & DH pipes.



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Nova Multi & Nova Uno/0



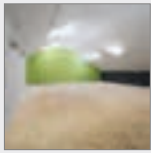
3 sizes seal from 25-160 OD



Blind plug

DOYMA – Simply Safer Sealing – Insurance company underwritten warranty - 25 years with up to 110,000€ compensation to cover product replacement and consequential loss

EGGER OSB HDX takes the strain



EGGER UK's new OSB HDX 30mm load-bearing panels have been used by Woodfield Squash and Leisure Club in Doncaster as part of a £500k expansion and renovation. The new investment has created four glass-back squash courts, an open plan gym, a large fitness studio and new members' bar overlooking the squash courts.

Approximately 400m² of EGGER OSB HDX boards were installed to create the floor in the gym and fitness studio on the first floor. EGGER panels are denser and stronger than other boards on the market, providing extra strength, insulation and sound reduction.

0845 602 4444 www.egger.com

Expona Flow helps to refresh restaurant



High design commercial sheet vinyl flooring from UK manufacturer Polyflor's Expona Flow PUR collection was recently used to create a vibrant new restaurant area at University Hospital Wales in Cardiff. Approximately 600m² of Polyflor

flooring was installed throughout the restaurant by Swansea based contractors Artisan Flooring. The grey-toned Silver Oak and Smoked Oak wood effect designs from Polyflor's Expona Flow flooring collection were installed alongside each other throughout the serving stations, cashier desks dining areas and around vending machines.

0161 767 1111 www.polyflor.com

Polyflor is right on track



Heavy commercial vinyl flooring from Polyflor Ltd was recently used to create a fun train track floor design at Drayton Manor Park's Thomas Land™ in Staffordshire, UK. Multiple designs from Polyflor's Expona Flow commercial sheet vinyl collection were selected

to create a floor inspired by the children's TV series Thomas and Friends™. Three shades from the Expona Flow Cosmos range (Woodland, Taupe and Luna) provided a bold and eye-catching backdrop, while the Bronzed Pine design from the Expona Flow Wood collection was used to replicate the look of railway sleepers.

0161 767 1111 www.polyflor.com

Polysafe Apex keeps up with the pace



Heavy-duty safety flooring with enhanced slip resistance from Polyflor's Polysafe Apex range was recently installed in the busy commercial kitchen at the Radisson Blu Hotel Athlone in Co. Westmeath, Republic of Ireland. Polysafe Apex vinyl safety flooring

in the Chromite shade was chosen for a 450m² kitchen area which caters round the clock. Polysafe Apex is a high durability safety floor which provides sustainable wet slip resistance and underfoot protection where there are regular spillages of more viscous oil and grease contaminants.

0161 767 1111 www.polyflor.com/apex

Decorative, adhesive-free Altro Cantata



Altro has unveiled its latest innovation: decorative, adhesive-free Altro Cantata™ flooring – designed to create maximum impact with minimum downtime. Altro Cantata's 16 soft-look shades, which range from subtle naturals to beautifully vivid,

allow you to create just the right tone with endless design possibilities. Altro Cantata is a durable 2.2mm floor that can tolerate medium to heavy-duty traffic, meaning that it performs in busy spaces as you would expect from an Altro floor. It is also easy to clean, so its striking shades look good long-term.

01462 480480 www.altro.co.uk

Sika serves-up surface in rapid time



Sikafloor provided the urgent solution when a popular city centre restaurant required a smart, durable surface installed in a matter of hours to ensure the business opened on time. The Cat's Pyjamas, an Indian street food eatery based in Leeds'.

With only a 12-hour window in the fit out schedule to apply the new surface, the system had to be fast-curing without compromise to its quality. Work involved applying Sikafloor®-01, a high-performance dispersion primer to the existing slab. Sikafloor®-300 Rapid Level was then installed to an average 10mm thickness.

01707 394444 www.sika.co.uk

'Eastern promise' with Gerflor



Staying fit and healthy whilst having some fun can be a recipe for a long, healthy life. Happily, many local councils UK nationwide have embraced this doctrine. The council-run Eastern Leisure Centre in Cardiff had more than 250,000 users last year, but was in urgent

need of modernisation. The project would be a perfect 'fit' Gerflor. They would provide their high-end Taralay Impression Control safety flooring together with their uber-performing Taraflex® sports flooring. With Taralay Impression Control and Taraflex® Sport M Performance from Gerflor being included in the original tender document.

01926 622600 www.gerflor.co.uk

New floor to score satisfaction



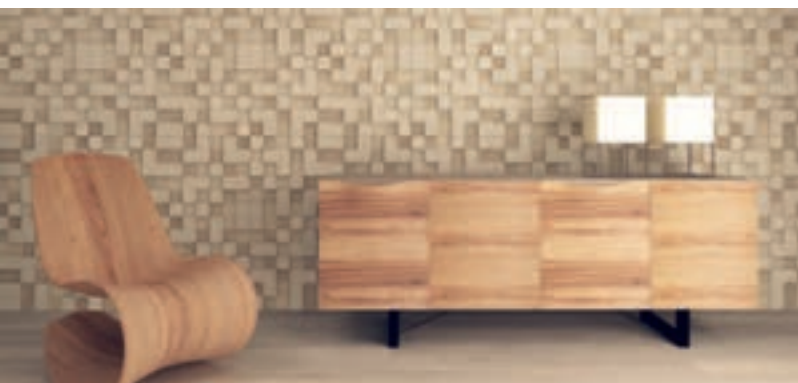
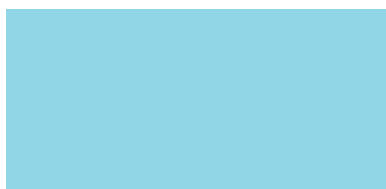
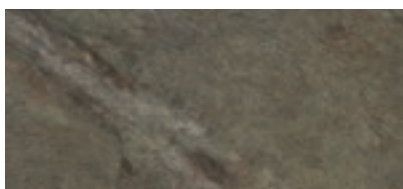
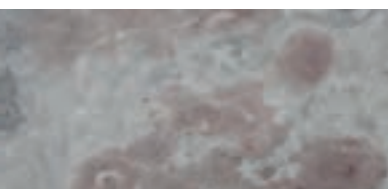
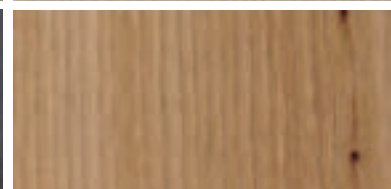
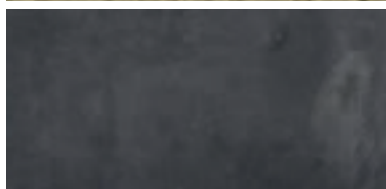
Flowcrete has created a floor that will help Yegin Industries bounce, dribble, volley and dunk its way to success! The sports ball manufacturer specified a selection of high performance resin flooring solutions from Flowcrete in order to install a creative and

unique floor finish throughout its brand new office. To showcase the company's "work hard, play hard" attitude, the designer specified 100m² of FlowSport with Deckshield UV Linemarkers. This was applied as it would provide the bright colours and clear patterns necessary to create sports-court style finishes.

01270 753000 www.flowcrete.co.uk



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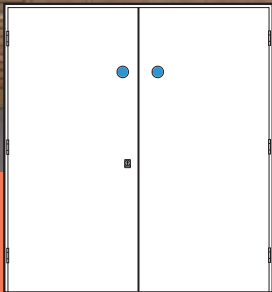
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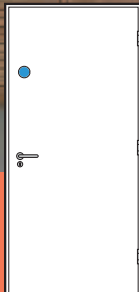
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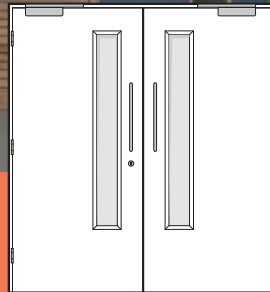
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Better safe than sorry

Door closers may not define an interior design, but their clear impact on safety and aesthetics should convince architects to think twice before specifying them. Samuel Heath comments

Despite being essential safety features, door closers are rarely of the highest priority to architects when considering interior fittings. However, the specification of these devices can have a significant effect on the appearance and ambience of a place and its occupants' comfort.

Key to the selection process is to ensure the door closer meets the performance requirements stipulated by legislation, building documents and published standards. Fire resistance and accessibility, for example, are paramount. As a minimum, door closers should carry the CE mark denoting their suitability for use on fire resistant door sets. In addition, to ensure accessibility, these devices should aid compliance with the requirements of Approved Document M (AD M) of the Building Regulations in England and Wales (Section 4 in Scotland and Part R in Northern Ireland) and BS 8300.

Beyond these key considerations, specifiers must also examine other factors which can have a direct bearing on the safety and well-being of the building's occupants. Poor product reliability or the practice of wedging fire doors open can lead to devastating consequences in the case of fire, so ensuring a door closer can perform its intended function at all times is of major importance.

Made to last

The failure of a door closer will inevitably cause the failure of an entire fire door to close and stop the spread of a blaze through a building in the event of fire. Quality of design and manufacture, alongside cycle testing of door closers, can provide some assurance of a product's durability. Scheduling regular maintenance and monitoring offers further protection and control, but this can impose an undesirable burden on building managers. Opting for an alternative type of closers, such as concealed door closers, can be key for the



long term as they are designed to be maintenance-free.

Damage control

Beyond addressing the closers' quality and making provisions to ensure their correct use, specifiers must also assess the potential impact of vandalism and tampering with door closers. This too can have a detrimental effect on the fire doors' overall performance or prevent them from closing altogether. In educational buildings and other public facilities, for example, the users' duty of care may not be particularly high and such risks are significant.

Surface-mounted door closers, with their visible control boxes and mechanical arms can become a target for pranksters, whereas concealed door closers, particularly jamb-mounted models, virtually eliminate such a risk. Controlled, concealed door closers are invisible when the door is closed and have very few visible parts when it is

Opting for concealed door closers can be key for the long term as they are designed to be maintenance-free



Poor product reliability or the practice of wedging fire doors open can lead to devastating consequences

open, thereby reducing the likelihood of damage through vandalism.

Keep it shut

Despite numerous notices, best practice guides and individual instructions, wedging fire doors open remains common practice, so measures should be taken in order to ensure all doors are in working order at all times. One solution to this is either to specify hold-open devices or to use free-swing door closers, which allow the door to operate manually until the door closer is activated via the building's fire alarm system.

Another element of safety and risk reduction that is probably not given special consideration beyond specialist facilities, is the risk of a door closer being used as a point of ligature. While this may be a sensitive and uncomfortable subject, the risk should be recognised, perhaps particularly in educational learning and

accommodation facilities. Full anti-ligature measures would be excessive in most scenarios and it would be enough to instead specify certain types of concealed door closers that can offer a useful alternative to their surface-mounted counterparts.

Aesthetic appeal

Great looking interiors are not the sole preserve of the designer who wishes to create places unencumbered by unattractive mechanical devices. Many health and care professionals recognise the contribution that more homely, less institutionalised interiors can make towards the well-being and recovery of mental health patients or those in other care facilities. Surface-mounted door closers can create interiors with a functional ambience whereas a totally concealed door closer can help foster a more therapeutic and comfortable environment.

Ultimately, the choice of the right type of door closers for any application lies in the product's compliance with relevant performance fire safety and accessibility requirements. Once this criteria has been satisfied, other factors, which can enhance the interior aesthetics as well as the safety, comfort and well-being of the building users, should be taken into consideration.



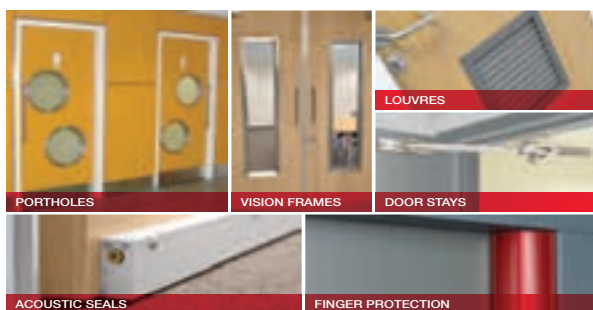
Let it shine with new Vicaima High Gloss

The characteristics of a High Gloss finish have long been valued by interior designers. Its ability to reflect light, the perception of luminosity and the illusion of space, all present a comfortable feeling of openness and elegance. The latest Vicaima finish, "High Gloss", is now available as an option across many of their popular veneered and painted door, frame and wall panel products, allowing a premium finish for interior decoration without the burden of premium cost. Luxurious appeal is a term that best describes the new Vicaima High Gloss finish. Enhancing the natural beauty of real wood veneer or taking lacquered paint finishes to new levels of quality, are the hallmarks of this latest innovation from the Vicaima brand. Once the preserve of a select few, this new high gloss finish enables a touch of refinement to be attainable for many more applications, and all with the superior quality you would expect from a Vicaima product.

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'Touchless' needs no helping hand



A 'touchless' manual activation solution for automatic door operation – has been introduced by GEZE. The proximity switch GC 306 meets the rigorous standards required in hospitals, laboratories, care homes and food preparation areas. It's non-contact activation can be set as required and has a range of 10 to 50cm to open

automatic swing, sliding, folding, revolving or curved sliding doors seamlessly. The low voltage operation of the GC 306 conforms to radio equipment directives and can be used in the vicinity of sensitive medical equipment and IT server rooms.

01543 443000 www.geze.co.uk

Library features dramatic ceiling



The new £16.1 million Laidlaw Library at the University of Leeds has been enhanced by an 800m² wood grill ceiling, designed and manufactured by Hunter Douglas. It comprises a pre-assembled grill of five slats, which were threaded on to black dowels to maintain their

structural integrity. ADP Architects wanted an industrial-style finish, so no acoustic materials were used to fill the 55mm gaps between the slats. African Ayous was specified, which was stained white RAL 9010 with water-based paint. The wood also has Flame Delay fire retardant impregnation to achieve Euro Class B-S2-D0 fire resistance

01604 766251 www.hunterdouglas.co.uk

High class closing



Powermatic controlled, concealed door closers from Samuel Heath have been used to great effect on new apartment buildings beside the River Thames. Situated at Millbank and enjoying spectacular, unrestricted views of the Thames, Riverwalk House has been designed by award-winning architects Stanton Williams for Ronson Capital Partners. The high aesthetic quality of the building's limestone, bronze and glass exterior continues inside, where interiors feature a light, airy décor scheme, with contrasting dark-stained oak apartment doors and surrounding panels. Concealed fittings allow doors and panelling to be shown to their luxurious best. Stanton Williams specified Powermatic concealed door closers for entrance doors to the individual residences. The door closers are totally concealed when the door is closed, ensuring that the appearance of the doors and interior finishes is not spoiled by mechanical arms and control boxes. Jason White of Stanton Williams comments, "We chose the Powermatic concealed door closer as it meets the necessary fire and accessibility requirements and, just as importantly for this project, it is hidden from view when the door is closed"

0121 766 4200 www.concealeddoorclosers.com

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www.horne.co.uk/optitherm



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Washrooms for the unintentional vandal

There's a potential vandal in each of us, especially when it comes to using public washrooms and toilets. In public facilities there is a wide variety of technology available and a lack of familiarity may result in unintentional vandalism if the user does not know how an electronic tap works or how to adjust the temperature. Frustration or impatience may manifest in increasingly abusive behaviour and the sanitary fittings provide a convenient target.

DELABIE has over 80 years' experience manufacturing water controls and accessories for the commercial sector. We believe that there are certain considerations that can mitigate against the involuntary vandal such as well-designed facilities, product suitability and regular maintenance.

Poor housekeeping

Aesthetics play a large part. Washroom facilities with an obvious lack of maintenance (broken tiling, soap dispensers with no soap, WCs or urinals with water stains) will lead to contempt for the facilities. Attractive surroundings with well-maintained fixtures and clean, bright surfaces are more likely to elicit respect and care from the user.

Fit for purpose

System considerations need to be factored in. Pipe size, dynamic pressure and flow rates play an important part. Failing to adapt the WC flush to system pressure will cause over spray leading to wet floors creating a hazard for users. Similarly, excessive splashing from an incorrectly positioned shower head or an undersized basin will result in surfaces becoming discoloured, joint integrity may fail, materials may warp with the damp and hygiene becomes a major concern. Products that can be easily adjusted to system conditions during installation will pre-empt such problems and provide facilities that are fit for purpose.

Durable materials

Taps and showers intended for washrooms subject to intensive use such as sports facilities, service stations or airports must be made of robust and durable materials. Push-button controls and mechanisms should have no fragile moving parts. DELABIE mechanisms are made from solid brass and will withstand regular and intensive use. Our electronic sensors are able to withstand impact, even though they are designed to be non-touch.



Well-designed facilities with durable sanitary fittings will keep unintentional vandalism at bay

Accessories such as soap dispensers, paper towel dispensers and grab bars for accessible toilets are made from 304 stainless steel – the surface reacts spontaneously with oxygen, forming a protective layer, and guarding the surface against corrosion.

Secure fixings

Water controls with secure fixings will withstand a heavy-handed user and also more deliberate vandalism. DELABIE's commercial tapware is designed to fix firmly in place via threaded rods with a horseshoe bracket and back nuts to tighten onto the working surface. Alternatively cross wall fixings and anti-rotating pins provide an additional level

of stability that will withstand any torsion or twisting. Fully recessed models with tamper-proof fixings or concealed fixings leave no opportunity for even the most determined vandal to access the mechanisms.

Consideration is often given to how to prevent overt vandalism but facilities managers and building owners need to consider the impact of unintentional vandalism. DELABIE's water controls and sanitary fittings can provide a complete washroom solution that will minimise the impact of involuntary damage.

01491 824449
www.delabie.co.uk

Inspired Surfaces – Creative Partners

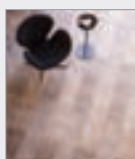


Simon Branton,
Commercial Director

Founded in 2015, Inspired Surfaces are creative partners, working in collaboration with Architects, Designers and Specifiers to supply specification led interior products. Proud members of the British Contract Furnishing Association Inspired Surfaces are an FSC accredited business, focused on providing technical product knowledge and driven by design innovation with surface materials. Inspired Surfaces have a product portfolio of contemporary, performance driven solutions found within the RIBA and NBS product specification platforms, all of which are BIM level 2 compliant.

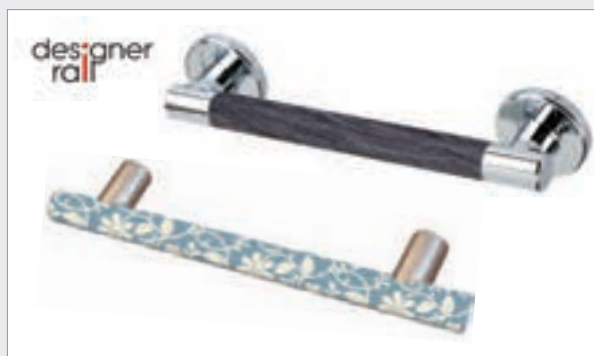
enquiries@inspiredsurfaces.co.uk

Constellation captures imaginations



The trend for eye-catching textures and effects in office carpet has led to a significant increase in demand for Heckmondwike FB's 'Constellation' range. The range offers a softer, more tonal installation and is available in a choice of 11 different shades, offering limitless design opportunities. The colour choices include red, orange, green, blue, purple, grey, black and plum, plus cream, beige and brown. The Constellation range is available in 'planks' to create inspirational designs that capture the imagination and demonstrate the endless possibilities with this exciting carpet design.

sales@heckmondwike-fb.co.uk

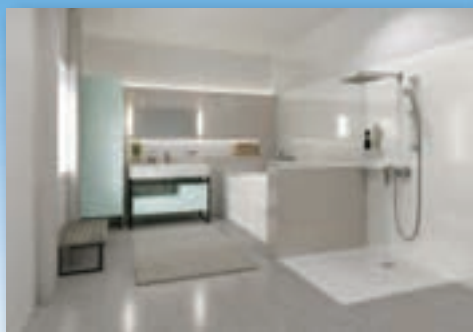


Lecico bring unique grab rails to UK

The world's first 'designer' grab rails are to be brought to the UK by one of the market leaders, Lecico Bathrooms. Corporate logos or any alternative patterns can be imprinted on the rails to provide a stylish and tailored assisted living option for those with limited mobility. Lecico has agreed an exclusive distribution agreement with the manufacturers of the rails - Inclusive Concepts - and the products will be available in the UK from early June. Paul Gemmell, head of marketing at Lecico Bathrooms, said: "The designer rail is a truly unique offering and we are very excited about reaching an agreement with Inclusive Concepts to bring this product to the UK." The rails will be available in four different sizes – 385mm, 486mm, 537mm and 690mm – and the designs can also be printed on flush plates and shower valve surrounds to coordinate the bathroom design.

01234 244030 www.lecico.co.uk

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United Kingdom

West Country leisure centre refurbished with a full BAL tiling solution



A £550,000 refurbishment of a Somerset leisure centre has been completed thanks in part to a full tiling solution from BAL. BAL worked with tiling contractors J Bailey and Sons to provide a full M40 specification, fixing materials and on-site support for new changing rooms and shower areas at Wells Leisure Centre. The re-tiling of the changing areas formed part of the first stage of an investment programme at the centre which also included an extended gym with new equipment, new sauna, new fitness studio, indoor cycling studio and refurbished reception area. The shower and changing room walls featured 600x300mm Ceramica Impex White Gloss ceramic tiles, while the shower and changing room floors were tiled with 305x305mm Atlas Concorde Dolmen Porfidio Grigio porcelain tiles supplied by Bristol Tile & Bathrooms. Backgrounds in dry areas were primed with BAL Prime APD while wet areas were tanked with BAL Tank-it fast-track waterproofing system. Tiles were fixed with BAL Rapidset Flexible Fibre tile adhesive and grouted with BAL Micromax2 grout. The project was finished with BAL Micromax Sealant colour-matched with the grout.

01782 591100 www.bal-adhesives.com

Armstrong Ceilings' new green video



A look at the value that Armstrong Ceiling Solutions' pioneering recycling schemes bring to saving the environment, and contractors' money, is given in a new green video. The two-minute video showcases the numerous benefits for specifiers, main contractors and installers in signing up to Armstrong's peer-

less green philosophy. This is to leave as small a footprint as possible through its commitment to employing energy savings, sustainable water management, waste reduction and more greenery for a healthy working and living environment

01895 251122 www.armstrongceilings.co.uk

Puro Set Wide from Kaldewei

Puro Set Wide is the latest steel enamel bath from Kaldewei, perfect for bathing and showering with a centrally-positioned waste outlet and extra wide rim, giving maximum freedom for positioning taps and fittings. With an ergonomic backrest and extra steep walls on three sides, Puro Set Wide offers

reclining comfort and optimum legroom while bathing and freedom of movement and excellent underfoot safety while showering.

01480 498 053 www.kaldewei.co.uk

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New guidance on washroom legalities

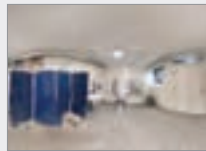


By law (Equality Act 2010), venues need to make anticipatory 'reasonable adjustments' to the built environment to prevent disabled people being put at a 'substantial' disadvantage- that includes suitable toilets! To help all involved in the decision-making process get it right, Clos-o-Mat

has produced a new white paper. '*Accessible Toilets, Washrooms & Bathrooms – The Provisions Beyond Building Regulations Approved Document M*' explains why Approved Document M type toilets do NOT meet the needs of up to 14 million people, and outlines the relevant British Standards and guidelines for compliance.

0161 969 1199 www.clos-o-mat.com

Resort opens doors on accessibility



Alton Towers Resort has become the most accessible of the UK's top theme parks with the opening of two new assisted, accessible toilet facilities. The Staffordshire venue, which attracts on average 2million visitors a year, has become the first of the most popular theme parks to install both a

Changing Places, and Space to Change assisted, accessible toilet. Both facilities have been supplied and installed by Clos-o-Mat, Britain's leading disabled toilet solutions company, and the largest provider of assisted, accessible 'away from home' toilet facilities.

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Delivering the fully accessible dream

Alastair Stannah, managing director of Stannah Lifts, looks at the development of accessible lifts over recent decades and the options now available to specifiers

As a lift supplier with a 150 year history, accessibility has always been our business. However from when the first lift was installed in London in 1860 until the 1990s, they were considered luxuries, not necessities.

Attitudes to disability began to change after WW2 and saw the hidden segregation of disabled people start to reduce. Slowly and surely, supported by legislation and education over the decades, 'access for everyone' has become the ultimate goal today.

The rate of progress quickened in 1980s when the Building Regulation Part M (England and Wales – first introduced in 1985) and Part S (Scotland), began to prescribe how to achieve 'access for all' in new and refurbishment building projects for public access.

The 1990s saw the first Parliamentary Act covering accessibility came into force. The Disability Discrimination Act (DDA) 1995 was the UK's most significant and groundbreaking legislation, which introduced and laid the foundation of our ever-increasing inclusive society. At the same time, the government programme Access to Work started with the aim to assist disabled people in getting employment.

In 2001, BS8300 – 'Design of buildings and their approaches to meet the needs of disabled people – code of practice' became the main reference document for specifiers when considering disabled access. Finally the Equality Act 2010 combines all types of discrimination into one all-encompassing documentation to ensure equal treatment of every minority group.

A range of lift types have been developed to help provide access internally and externally, Part M and BS8300 helping to outline best practice on specification. For vertical access, standards require firstly that where possible, passenger lifts should be the first choice. Platform lifts may be an alternative

for existing buildings and for new developments with constraints (e.g. a listed building or an infill site in a historic town).

If requirements for an existing building dictate, i.e. if there is no other alternative, a lift can be provided that travels over the stairs – a wheelchair platform stairlifts. This lift folds neatly away, making it ideal for awkward spaces, heritage buildings and occasional use, however great care should be given to ensure it does not conflict with fire escape requirements.

The range of access lifts has widened over the last two decades. Today the plethora of choice can be confusing, with wheelchair stairlifts, open platform lifts, fully enclosed platform lifts, cabin platform lifts with automatic buttons, and the recent introduction of machinery directive passenger lifts.

On the whole, our built environment is delivering on accessibility. New buildings from the 1990s onwards have been designed to consider mobility. In new build the choice should be a fully accessible passenger lift. It offers the best life-cycle costs, providing vertical travel all day, every day to all building users. Exceptions may be small housing units and retail outlets.

Installations fall into two distinct areas: new build where an architect or specifier can design the most suitable lift into a building; and refurbishment where the building dictates what is possible. Progress has been much slower in providing accessibility in our heritage sector than in new builds, and the very places people with mobility issues want to visit can still provide problems. Installing a lift in existing buildings can be challenging. A platform lift has a structure instead of a shaft and has lower pit and headroom requirements, meaning it is often easier to fit within the building fabric than a passenger lift.

Alastair Stannah is managing director of Stannah Lifts



The choice can be confusing, from wheelchair platform lifts to open, fully enclosed and cabin platform lifts to the recently introduced machinery directive passenger lifts

Investment in new wards at County Hospital Stafford protected by Yeoman Shield



County Hospital, Stafford, have invested in 4 new wards which are to be opened throughout the year, offering more patient beds and spacious areas conducive to patient care and staff wellbeing.

The first of such wards to be opened is Elderly Care, Ward 15, which - now containing 28 beds with 12 single en-suite rooms, four, four bedded bays, a dedicated rehabilitation/therapy space, counselling and day room – is a great improvement on what was previously available.

The ward refurbishment work, run by main contractors Kier Construction, included wall & door protection products from Yeoman Shield which were installed by their own fixing team.

To ensure that the investment of time and money made by County Hospital in the re-decoration and layout of the new ward was preserved for many years to come, Yeoman Shield Guardian Twin Handrail was fitted to the walls along the bed bay corridor.

This dual purpose product not only acts as a handrail support for those requiring it but

the integrated lower protection rail provides protection against wear and tear to the walls and the upper handrail also.

The nurses' station area and connecting corridor walls are now thoroughly protected with Yeoman Shield 125mm protection rail on a solid timber core, affording a robust yet attractive defence against wheeled equipment, trolleys and cleaning machines.

Corner protection angles and protection strip were also added to ensure a comprehensive protection system was in place.

All were supplied in complementing shades of Grey, dovetailing into the décor scheme, contributing to a clean and attractive appearance throughout the unit.

The 12, bright and airy, en-suite rooms, colourfully painted, have Yeoman Shield bed head protectors installed on the walls at the head end of the patients bed. This area can be extremely vulnerable to damage caused by beds, drip stands and other medical equipment being wheeled up, too close, to the wall.

Yeoman Shield's stylish Guardian Bedhead protectors at 900mm long in Cream or Grey,



were fitted on spacer brackets, standing slightly away from the wall to ensure full protection was given to the plaster painted wall behind.

Ward Manager, Julie Woodworth commented: "I am extremely proud to be the first ward manager to move in the refurbished ward. The reaction from the patients and the staff has been absolutely fantastic."

0113 279 5854 www.yeomanshield.com



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The tile and stone covering in the shower area must be sufficiently sloped to allow for appropriate drainage. This is easily achieved with Schlüter's prefabricated levelling and shower tray components, which are available with a point drainage system or a component linear drainage system.

The linear drainage system Schlüter®-KERDI-LINE has been updated to ensure that it complies with BS EN 1253, providing a constant 50 mm water seal and meeting flow requirements in-line with National House Building Council (NHBC) regulations.

Schlüter-Systems has a long history of providing solutions for the application of tile and stone and has project case studies detailing where their systems and solutions have been used.

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Schlüter-Systems Ltd. has NBS Clauses and BIM Objects available on NBS Plus, National BIM Library and at the company website.

01530 813396 www.schluter.co.uk

A significant amount of time and thought is invested into the design of bathrooms for architectural projects. One design aspect that is important to consider is how our needs may change over time and the accessibility of a bathroom, en-suite or wetroom.

This is where barrier-free bathrooms or wetrooms with floor-level showers, easy-access sanitary ware and the provision of seating areas can offer a practical, future-proof solution. The huge range of ceramic and natural stone tiles available today means that creating luxurious, beautiful, yet safe slip-resistant surfaces is easily achievable.

Schlüter-Systems can help protect these stunning installations whilst providing a complete solution for a CE marked waterproof floor-level shower area. The uncoupling membrane Schlüter®-DITRA 25, which has been tried, tested and trusted for over 25 years, serves as a waterproofing membrane and a vapour pressure equalisation layer, protecting tile or natural stone coverings from cracking or debonding. The same features can also be found in the underfloor heating

system Schlüter®-DITRA-HEAT-E, making it ideal for heated floors and walls in wetrooms with tile and stone coverings.



Want to see our products in situ? There's now a space to do just that. Next time you're in London, take a wander to Clerkenwell, the scene of one of our latest collaborations – 49 Leather Lane. In this brand-new space for inspiration you can experience a complete Schlüter®-WETROOM system, making extensive use of our underfloor heating, lighting, profiles and more. In addition, a hot desking office and a meeting room are available to book for the holding of appointments, and the Porcelain Gallery offers a unique exhibition space featuring a multitude of Schlüter products, both installed and in sample form. For booking enquiries, please email specifier@schluter.co.uk

Ideal Standard adds to Concept Freedom range with new accessible bath for all ages

Ideal Standard, the leading provider of innovative and design-driven bathroom solutions, has extended its successful 'accessible bathroom range', Concept Freedom, with the addition of a new, multi-functional, accessible bath that is suitable for the whole family.

Concept Freedom's new inclusive bath tub has been designed to make bathing anxiety free for users with mobility issues, while still delivering a beautifully designed aesthetic and a tranquil space in which to bathe.

It also aims to offer an alternative to the somewhat stigmatised requirement to replace a bath with a shower in the hope, just because a user has mobility issues.

The intelligent and versatile design of the bath combines luxury with multi functionality, meaning its features are relevant for the different needs of the different types of users in the bathroom – with many of its features, such as the lower ledge, also making bath time simpler for those



bathing children and pets, for example.

Other key features of the bath include a reinforced ledge for stability, a lowered height controlled entry and exit, an inside step ledge to aid movability, a gel headrest to support the neck and support rails for manoeuvrability.

Ideal Standard teamed up with experts in design and care for older people. Led by Ideal Standard designer Robin Levien, the team comprised Design Council member, Colum Lowe, from specialist healthcare organisation,

Red and Yellow Care, and well-respected occupational therapist, Anava Baruch, from Design for Independence.

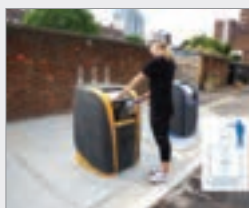
Developed with accessibility in mind, the Concept Freedom range aims to include those of limited mobility through a collection of ceramics, brassware and showers that are well-designed, elegant and functional to meet a range of access needs.

Bathrooms can be adapted to users' changing needs, whilst still looking modern and stylish – ensuring that the space deals with the demands of modern households and the diversity of occupants, including less able and older generations.

Concept Freedom's collection includes raised height WCs for easier, more comfortable access, accessible basins with wide side rims, wet-room panels with extended brackets and easy to use shower valves and kits.

01482 346 461 www.ideal-standard.co.uk

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enquiries@contenur.com

Cavity Barriers protect against fire spread



According to Document B of the UK Building Regulations fire barriers must be installed in cavity areas that are vulnerable to the spread of fire. Using the correct passive fire cavity protection system within a building is crucial, in the event of a fire, intumescent fire barriers activate

and seal holes, penetrations and cavities, preventing the spread of fire and smoke, thereby fulfilling UK regulations. The Envirograf® Cavity Barrier range fully satisfies the requirements stated in Document B of the Building Regulations.

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Turning a greener shade

James Parker spoke to Peter Howard of Dulux Trade to find out how the firm is attempting to get a clear message to specifiers to drive use of sustainable paint alternatives, and whether the industry is on board

The true meaning of sustainability can be hard to pin down, and perhaps will necessarily always be a combination of factors, but for many specifiers and clients, using more sustainable solutions remains a key focus. Dulux Trade is trying hard to clearly communicate to the industry the variety of benefits that more sustainable paints can offer to help them transition to greener options without compromising on performance.

With paints having had something of a poor reputation in the past on issues such as solvents and associated VOCs, persuading the doubters can be a challenge, with the risk of the debate being rather one-dimensional. In his role as marketing manager at Dulux's parent company AkzoNobel, Peter Howard has his work cut on broadening the issue, such as making a strong case for paint's durability, as well as encouraging recycling, and reassuring people that 'greener' doesn't mean 'inferior' when it comes to performance.

As part of this effort, Dulux Trade has developed a new set of marketing messages called Halo, which captures all of the key messages around paint sustainability into a seven-segmented colour wheel (see page 78). Says Peter, "It's a response to frequently asked questions from customers and where we see things moving as well."

Broader-brush sustainability

One of the key messages, that of durability, also ties into architects' desire to provide buildings which are flexible and/or multi-use for a long life, which is a perhaps under-appreciated sustainability factor. Says Howard, "If you're looking for a long-standing finish then we can help."

He adds: "More and more buildings are multi-use, whether it's in the domestic or commercial sector." Dulux Trade has established specialist ranges for decorating exteriors whether wood or masonry which can help extend their life, withstanding the elements and maintaining their looks for up to 15 years.

A couple of other elements within Dulux

Trade's sustainability 'Halo' revolve around cutting waste, such as helping specifiers get a project 'right first time' so that they do not have to repaint. Part of this is selecting colours using a useful visualisation app, as according to Howard, "colour choices can be quite challenging for architects and interior designers".

Howard adds that recycling and reuse is his "personal bugbear," explaining that despite concerted industry efforts to persuade painters and decorators, 78 million plastic tubs and 50 million metal tins end up in landfill every year – "that's despite many different merchants offering recycling services."

He does put some of the blame for this on specifiers however, saying "contractors aren't being asked to by the specifier; if architects demand it, it will happen." This is despite the added benefit with water-based products that once they are dry in the can, they can be recycled. "Whether it's an architect or interior designer, we'd love them to put 'use can recycling' in their specifications. Just that one sentence will drive the numbers. Under one per cent of cans get recycled, despite us always promoting it."

Another strand of 'getting it right first time' is ensuring that paints comply where required with environmental ratings systems, but auditing all finishes used on a project on their environmental compliance can be complex, says Howard. "Some of the most common questions we get are whether a product is BREEAM or LEED compliant, and no matter how many times we publish the information it always seems to get lost."

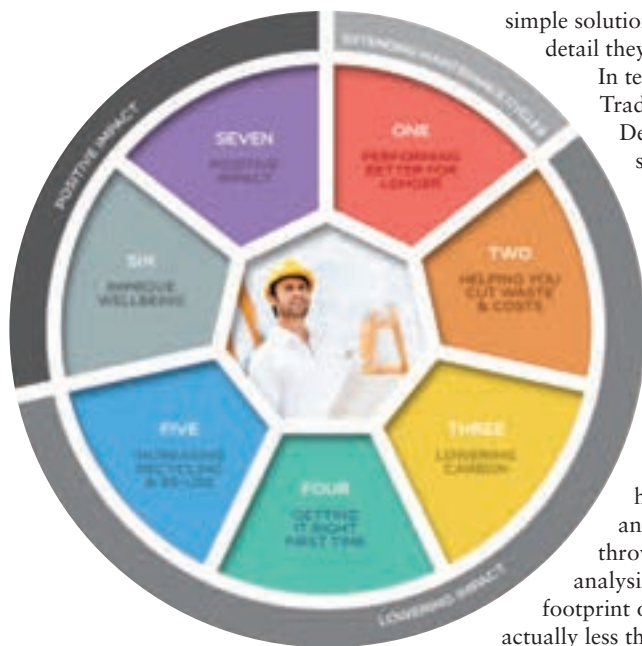
Carbon & life cycle

'True' sustainability is often seen as carbon reduction, and Howard says while it remains a core concern for specifiers, moving the industry over to water-based paints is challenging: "Our simple message is that water-based products have a much lower carbon footprint than solvents, plus they dry quicker and have other benefits. We are desperate to try and move people over. We are trying to firstly, give people a



Despite industry efforts to persuade painters and decorators, 78 million plastic tubs and 50 million metal tins end up in landfill every year

Peter Howard, Dulux Trade



A GREEN "HALO"

Dulux Trade has segmented its sustainability messages into a 'Halo' wheel to help specifiers go green

simple solution, but also give people the detail they need."

In terms of that detail, Dulux Trade's Environmental Product Declaration can provide specifiers with a full life-cycle analysis of individual products. "If you asked me about the carbon footprint of a particular paint, we have third party trusted data so you can now model that yourself. That level of independence is important, it's not us marking our own homework." An interesting and perhaps surprising fact thrown up by the life-cycle analysis was that the water footprint of water-based paint is actually less than that of solvent based paints.

Is the industry continuing to engage with the relevance of paint in contributing to sustainable goals? Howard says that most specifiers "appreciate the positive role that paints and coatings have, firstly in protecting the substrate to make it last longer." He says that concerns about performance are as big a factor as paint's inherent sustainability however: "They just want assurance that a product is good quality and will do the job, but doesn't have a high environmental footprint." He adds: "Things always centre around how much VOC content is in it."

He says that the wider sustainability issue of the robustness of the supply chain has come into focus recently at Dulux: "We have noticed a lot more pressure from specifiers around supply chain standards in the last three years. We now have BES 6001 because we were being asked those questions." He adds: "This comes up particularly on tenders and PQQs in the commercial sector."

Performance claims

The final arbiter of quality in the construction industry is whether products perform. However, with the first 'green wave' of eco products, there were examples of that performance not being up to scratch, says Howard. "There is a perception among maturer specifiers who perhaps got burned with the first generation of products that let them down. In some cases correctly and in other cases not, people felt that an eco product isn't necessarily a better product, and they were paying more for something

which isn't quite as good."

He says that although the industry has moved on "a huge amount – you can get products which are just as good, and cheaper," that journey "hasn't happened quick enough for some people. It is a big concern for someone who loves sustainability, because you want people to view sustainable products as having higher, not lesser, quality."

He admits a balance is necessary to achieve a commercially viable as well as sustainable solution – "the optimum will be somewhere in the middle – if you keep reducing the environmental impact it's not always going to suit every environment." He says product R&D at Dulux Trade "thinks about what are the most common scenarios and how can we best help people achieve them sustainably, otherwise it's pushing all people towards a solution that might not work for them."

Water-based paint for exterior applications doesn't mean a compromise on performance – for example Weathershield Smooth Masonry is water-based and comes with a claim of 15 years "all weather protection." And for exterior gloss, Weathershield Quick Dry Exterior Gloss lasts for six years. All colours in the Weathershield rain have been "optimised for lightfastness" which helps them look as good when they were applied, for a longer period of time.

While every product still contains some solvent, even those at the medium level are a big reduction on traditional paints, says Howard.

However, he advises: "Watch out for claims, we make sure all of ours are accredited, sometimes we are overcautious but we won't mislead the market." On cost, he says that Dulux Trade is aiming to "not penalise people" for buying water-based, so they can just "pick the product that's right for them."

Howard admits that moving painters to new products is a challenge: "They are conservative and time is their money – the risk is on them if they try a new product and it goes wrong, they have to pay to put it right. Unless they are forced to do it by a customer, they almost won't have an opportunity to have a go."

He concludes: "They've been let down in the past perhaps by water-based glosses, and now that's what they think every time they see a water-based product. There are always challenges but we are now in a position where you can rely on a water based product." ■

Powder coatings continue to evolve

Interest in creating natural effects on metal continues to grow and Powdertech Corby has just launched a brand new range of seventy-two shades to keep abreast of this trend. The new coatings, aptly named Evolution, form part of the company's unique Collections range of high performance powder coatings. In the natural environment, oxidation occurs on the surface of metals such as copper and bronze, creating beautiful patinas. Attractive though the patinas are, the metal itself is not protected; it is being oxidized and therefore its strength and other inherent properties are compromised. Evolution offers the best of both worlds - stunningly unusual, natural looking surfaces produced by high performance polyester resin powder coatings which give excellent weather and abrasion protection to the metal.

Evolution finishes are tactile with a thickness in excess of 80 microns and have gloss levels of 10 to 40 per cent (dependent on the finish) which show excellent retention. Colour retention tests demonstrate high UV light stability with a Delta E change of



between 2 and 8 units after two years natural exposure conditions. After rain, there is no staining of surrounding materials unlike natural oxidation products which leach from the oxidized metal.

Evolution can be applied to most metal substrates including aluminium, mild steel and galvanized steel. The powders are all Qualicoat class 1 approved and a twenty-five year guarantee is offered in conjunction with



Powdertech standard terms. The versatility of Evolution makes it suitable for external and internal fabrications, ranging from large facade panels, to small decorative elements. All seventy-two shades can be viewed on Powdertech Corby's website and swatches may be ordered.

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A coating for all seasons with AkzoNobel

With over 2,300 garden centres and retail nurseries in the UK and spending on garden-related items topping-out at a whopping £5bn per annum, it's no surprise that capital items like sheds, decking and fencing amount for a large portion of that outlay.

This Spring is set to see more convenience gardening and low maintenance options as people adapt to smaller living spaces, as a direct effect of the current global and seasonal weather patterns. Despite years of rain-soaked summers, we still believe that we have the ideal climate for outdoor living. We also like the low maintenance of it all. There is no time any more for weeding or mowing the lawn. If it doesn't move...cover it in wood!

At Blackburn-based coatings manufacturer AkzoNobel they know that supplying the highest quality products to protect these wooden assemblies in situ is key to safeguarding their longevity and make them look stunning all year round.

Carl Circus, UK Distribution Manager, AkzoNobel Wood Coatings said, "our SIKKENS CETOL® WF 771 is the ideal product for use on fencing, sheds and decking this Spring. It's technical qualities, ease of application, colour vibrancy and trouble-free maintenance make it a perfect choice for a huge selection of applications where either UV light and moisture are an issue."

With SIKKENS CETOL® WF 771, Sikkens Wood Coatings provide a special one-pot coating product which is highly protective against the damaging effects of UV light and moisture. Its transparent film deluges and fills the pores in the wood with the Saturator-Effekt® and therefore increases its durability. Flaking of the coating does not occur. The Self Stratifying® binder used in CETOL® WF 771 is modularly based: The first component ensures good adhesion to the substrate; the second component offers very good protection against UV light and moisture. This low build, low sheen translucent system is especially suitable for medium to highly exposed wood surfaces such as outdoor decks, garden furniture, roof soffits and cladding. The 'Never Ending Impressions' colour collection, designed especially for CETOL® WF 771 offers a wide spectrum of intensive colours and harmoniously balanced colour tones.

As well as being perfect for application by brush for the DIY market SIKKENS CETOL® WF 771 is used for application in a factory



environment by trade coaters, for example. In terms of meeting the needs of commercial cladding coaters, SIKKENS CETOL® WF 771 provides a perfect coating solution, whether it is applied by vacuum coater, brush coater or automated spray lines... a real boon at the early stages of construction affording the manufacturer more quality control.

Carl Circus added, "we can supply a regular volume of our products directly to the fence, shed and decking manufacturers. It's all about a reliable flow of service and delivery of product. On time, every time."

01254687950
www.sikkens-wood-coatings.co.uk

Tobermore Aid Macfarlane's Concept Design at £30m QEII Hospital

The stunning new Queen Elizabeth II (QEII) Hospital in Welwyn Garden City, Hertfordshire, has opened its doors to the public. London based landscape architecture practice, Macfarlane & Associates, was provided with the task of designing an attractive landscape for the £30 million facility which was designed by Penoyre & Prasad and the construction was managed by Balfour Beatty. Tobermore was on hand with a block paving solution for Macfarlane & Associates that would enhance the aesthetics of the new hospital and provide sustainability.

The sourcing of suitable hard landscaping materials was a hugely important task in meeting the schemes objectives.

The Tobermore South East Sales team presented Macfarlane & Associates with a variety of paving options that could complement the project. Founding Principal at Macfarlane & Associates, Glen Macfarlane, noted that the contemporary granite aggre-



gate finish of Sienna block paving and Mayfair Flags was perfect for the modern QEII building.

Glen explained more on the landscape architects decision to specify Tobermore products: "Sienna and Mayfair Flags were both reliable and cost effective. We knew the products would work on front of the QEII building to create a visible attractive entrance to the hospital, as well as simultaneously being a hard-wearing material capable of withstanding a large amount of footfall and

occasional vehicular overrun."

The Tobermore products also suited Macfarlane & Associates concept design for the grounds.

Macfarlane & Associates additionally praised the service provided by the Tobermore South East Sales force: "Working with the team is a great experience, as you are knowledgeably guided through the product range from specification to installation."

Now in full operation, the QEII hospital benefits the local district immensely with the latest technologies and treatment facilities available. The hospital offers an Urgent Care Centre which is open 24 hours a day, general outpatient services, a purpose-built area for children's outpatient services, diagnostic tests, day treatments procedures, GP out of hour's services, physiotherapy and rehabilitation units, as well as cancer and ante-natal care services.

0844 800 5736 www.tobermore.co.uk

Accessible eco home makes a statement in colour



After Steve Hudson was diagnosed with multiple sclerosis, he and his wife Barbara searched for a wheelchair friendly property. Eventually, the couple found a rural property for demolition to make room for a new, purpose-designed home. As part of a raft of eco friendly features, Steve and Barbara specified **Earthborn paints** throughout. Barbara said: "The Earthborn colour palette is fabulous and it inspired us to use around 15 different shades." Steve added: "The painters were very impressed with Earthborn's covering power. The texture was quite a talking point with them."

Aside from the aesthetics of Earthborn paints, their formulation benefits Barbara's health. She developed skin allergies a few years ago and wanted a paint that would not trigger them off. Earthborn paints are made without oils or acrylics, so they are virtually VOC free. That means there are none of the strong smells associated with oil based paints and they do not give off any toxic emissions, so are much better for the health of building occupants as well as the environment.

01928 734 171 www.earthbornpaints.co.uk

Just 48 hours from start to finish

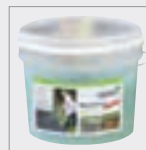


Bradite have introduced a tough, fast drying new protective coating system for the commercial and industrial sectors that allows contractors to complete a job in just 48 hours from start to finish – allowing clients to be

back in business fast. Part One of the system is high performance he two-pack, water-based ES40 Floor Primer. Touch dry within one hour, Bradite ES40 Floor Primer has a recoat time of just two and a half hours. Part Two of the system is Bradite's new Rapid PW74 Coating and Floor Finish, which used in combination with ES40 Floor Primer can provide a traffic ready floor space in just 48 hours.

01248 600315 www.bradite.com

Osmo revives aged wood



Osmo UK, the eco-friendly wood and finishes expert, brings tired looking and aged wood back to life with its powerful cleaning agent, Osmo Wood Reviver Power Gel. This product has been especially developed to restore exterior wood back to its original colour and character. Osmo

Wood Reviver Power Gel is a jelly-like cleaner that effectively cleans and refreshes greyed and weathered exterior wood. Made from environmentally friendly and biodegradable ingredients, the product is free from harmful solvents, chlorine compounds, amines and harmful odours.

info@osmouk.com

Charcon helps deliver vision for School



Charcon, has successfully completed a significant delivery to the new £20 million Sybil Andrews Academy at the Moreton Hall development in Bury St Edmunds, Suffolk. Appointed by local contractor,

Barnes Construction, Charcon consulted with architects Concertus to recommend the best hard landscaping products. To help enhance the sustainability rating of the school, more than 3,500m² of Infilta 80mm permeable block paving in Grey and Charcoal, alongside nearly 3,000m² of Infilta specifier block paving in both Light and Silver Grey was specified for the car park.

01335 372222 www.charcon.com

Infilta paving improves visual appeal



Charcon, has enhanced its successful Infilta permeable block paving range by incorporating a new design element. The new Infilta range now features nibs that end 13mm short of the face of the block. The result is a totally unique block paving solution that does not compromise

interlocking performance and offers enhanced aesthetic appeal with nibs being hidden from view when laid. Not only is Infilta more appealing from a design perspective, it is a totally unique permeable paving solution that does not compromise on water drainage performance, enabling water to drain away through the gaps.

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New products... new potential



Long Rake Spar are leading suppliers of dried aggregate granules, sands and powders suitable for use within resin bound and bonded paving.

Known for their innovation in product development they are celebrating their 150th anniversary this year with the introduction of numerous new product lines, including three products into their Grantex range that are suitable for use within resin systems. The Winter Quartz is available in a 2-5mm while the Autumn Quartz and Silver Blue Granite are both available in 1-3 and 2-5mm. These three very different new products offer resin contractors greater scope in meeting their customers' requirements.

grantex@longrakespar.co.uk

UltraScape helps to deliver new gateway



UltraScape's BS 7533 compliant mortar paving system is playing a major role in helping to transform Cardiff's Central Square, a £400 million regeneration of one million sq ft of new office, residential and leisure space around Cardiff Central Railway Station. UltraScape's BS 7533

compliant Flowpoint rapid set grout is simple to use, requiring only the addition of water on site, it is poured over the area and washed clean, filling all joints evenly, without staining. This method provides an easy method of grouting large areas, quickly. Projects incorporating BS 7533 compliant materials benefit from a reduction in failures.

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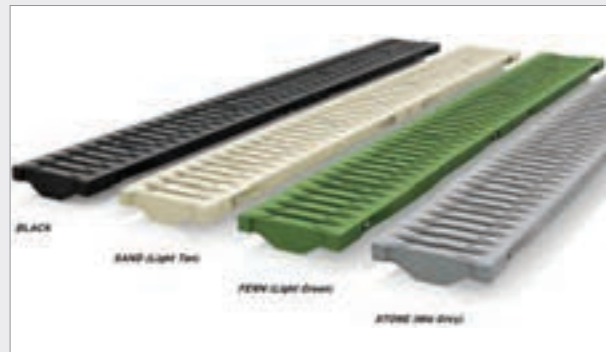


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FIBRETEC® Coloured gratings

In addition to the popular BLACK version, FIBRETEC gratings from Hauraton are now available in three pastel colours. Moulded using coloured PA-GF granules, BLACK is joined by SAND, FERN, and STONE. These FIBRETEC gratings are available with the company's RECYFIX PRO 100 and FASERFIX KS 100 channels, both providing a loading category of Class C250. In all cases, the FIBRETEC grating has an intake cross section of 372cm²/m. Available in various heights they provide drainage cross sections from 35cm² to 192cm². The new colours have been selected to blend with surfaces and the surrounding landscape. For instance the FERN grating can be used to blend in with a real or artificial grassed area, such as a sports field, whilst the SAND and STONE colour could be chosen to blend with lighter block paving colours.

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