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FROM THE EDITOR



There is more than the usual sense of trepidation as we enter a new year as, added to the resigned sense of pessimism many in the industry are feeling about Brexit, there is also now the threat of east-west conflict flaring up in the Middle East. This was on the back of some of the worst examples of the effects of climate change we have yet seen, with the intense fires raging in Australia. All in all, not exactly reasons to be cheerful.

However, the one saving grace of what was a depressing General Election for pro-EU observers, was that it has forced a sense of closure, at least on the vexed question of whether or not the UK had a secret sense of wanting to turn the clock back and look at the Brexit question again. The clear majority wants to leave, so leave we must; the question is now how painful that process will be, and how long it will take.

We will be debating this for the foreseeable future. Even if Boris does manage to force through a trade deal this year as he promises, the aftermath will be long, probably lasting decades. If anyone thought that the winter Election was the end of this, they are sorely mistaken. It may however become so enmeshed with technical border issues and logistical wrangling that no-one 'normal' really cares anymore, only the 'weirdos' that Dominic Cummings says he wants to recruit to number 10. There is certainly going to be enough going on with Donald Trump's warlike behaviour, our slowly imploding Royal Family, and the tragic global consequences of climate change to keep people's attention away from the challenging realities of implementing Brexit over the next few months.

In the meantime, despite the regrettable national convulsion caused by the 2016 referendum, business must continue, and architects remain focused on doing a great job for their clients and buildings' users, as well as maintaining healthy businesses themselves – businesses which are benefitting from a diverse international workforce. Our leading firms continue to deliver fantastic innovation and projects worldwide, with UK firms being world-leaders on many fronts, including on sustainability-focused architecture. This is absolutely a reason to celebrate.

The most satisfying example I saw of this recently was ZHA – not a practice unaccustomed to receiving negative publicity recently – and its announcement that its 5000-seater all-timber stadium for famously vegan football club Forest Green Rovers in Gloucestershire has successfully won planning, at the second attempt. I feel that for the sake of everyone's wellbeing, there will be a pressing need to focus even more than we normally would on such positive examples in coming months.

James Parker
Editor

**ON THE COVER...**

Andermatt Concert Hall designed by Studio Seilern Architects features three 'cloud-like' fibreglass acoustic sculptures suspended from the ceiling

Cover image © Roland Halbe

For the full report on this project, go to page 40

MIXED USE

Maccreanor Lavington's Southwark scheme given the green light



Southwark Council has approved a new mixed-use building that forms part of the Ruby Street Triangle on Old Kent Road, in south London. The planning committee gave unanimous approval to the Maccreanor Lavington scheme – for developer Acorn Commercial.

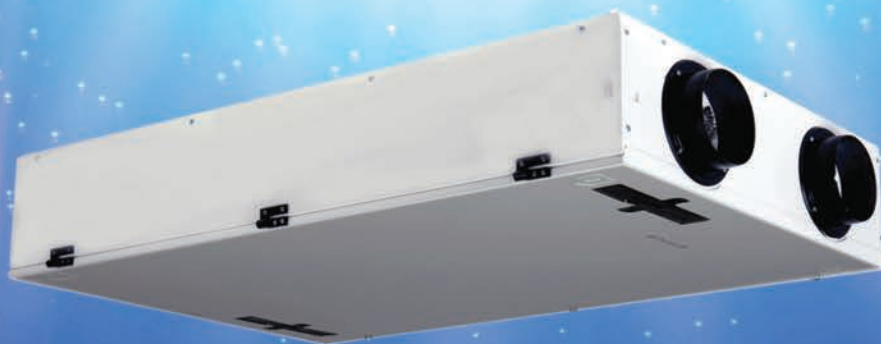
It comprises 111 new homes, plus over 2000 m² of workspace, retail and cafe uses, and the re-provision of an existing church and community facility. The new building is located on a prominent junction between Ruby Street, Murdock

Street and the Old Kent Road.

A three-storey plinth responds to the scale of lower existing buildings, creating a streetscape on Ruby Street. A “faceted” tower rises to 22 storeys, and forms part of an emerging cluster of taller buildings within the context of the Ruby Triangle scheme.

The apartments range from one to three bedrooms, with over 36 per cent being affordable tenure. A single entrance lobby and circulation, including access to communal roof terraces, helps ensure the tenure-blind nature of the design.

The circulation space within each apartment has been minimised by the designers, with a view to maximising the area of the living/dining spaces. As a result, many of the proposed flat typologies have living/dining spaces which “far exceed minimum guidelines,” and are capable of accommodating additional or large pieces of furniture such as desks and storage for a home office. All balconies to the two-bed and three-bed units are recessed, except where large private roof terraces are provided.



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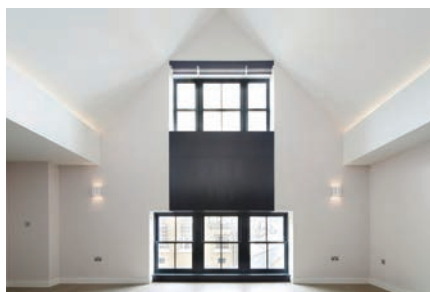
RESIDENTIAL

Apt unveils resi adaptation of 19th century building in Covent Garden

In the centre of Covent Garden's Seven Dials conservation area stands Chapter House, a new development rebuilt to a design by architects Apt to provide 40 apartments.

The 19th century-constructed building had several previous uses but lay unoccupied for many years and was "hindered by tight and unsympathetic accommodation," said Apt. Developer Londonewcastle acquired the site and appointed Apt to reinstate a new building "reflective of its location in the centre of London's theatreland."

Originally designed by architectural firm Gibson and Russell, Apt have retained the existing building's street-



facing facade and demolished the building behind to create a new structure that "responds intuitively to the site and surrounding urban fabric."

The historic elements of the project are balanced with a two-storey extension of 'copper-like' cladding and balustrades. The new addition has increased the accommodation on the site, formerly a four-storey building; it now houses six levels of accommodation with private terraces and gardens.

These range from studios, three bed apartments, and two duplex penthouse homes stretching across the upper floors. Each apartment has an individual design, responding to the different floor plans.

REFURBISHMENT

Saunders Boston Architects helps leisure centre get back in shape

Cambridge-based Saunders Boston Architects has continued its "commitment to improving local leisure and community facilities" with a £1.8m refurbishment for Newmarket Leisure Centre – the first phase of which is due for completion by the end of the year.

The design incorporates a range of improvements to the existing centre, including an extension to the gym that will try to "facilitate and encourage the local community to lead an active lifestyle," said the architects. On top of this, the practice have designed a variety of additional features, such as a soft play area with dedicated sensory space, an enhanced cafe, and studios offering classes such as yoga, Pilates, and meditation.

"The leisure centre has been modernised over the years, but this latest refurbishment is set to revolutionise and adapt the centre for years to come"

Nathan Swift, Saunders Boston Architects

Director at Saunders Boston, Nathan Swift said: "Ensuring that leisure facilities are meeting the needs of local communities is so important, which is why we put people at the centre of our designs. Leisure centres provide more than a place for exercise, they are also a place for relaxation and socialising – so it's great to be able to retain the centre's history while adapting it for the modern-day gym-goer."

TRANSPORT

Stephen George + Partners' Norwich Airport nearly 'ready for take-off'

Stephen George + Partners (SGP) is celebrating the start on site of its first 'airside' aviation sector project to be under construction. A ceremony marked the start of construction on the £7m 54,000 ft² maintenance hangar and 15,500 ft² workshop facility at Norwich International Airport for Rigby Group, owners of Regional City Airports.

The new hangar facility, which has been designed to service two Boeing 737 aircrafts, will accommodate the expansion of KLM UK engineering group, providing additional capacity to offer aircraft maintenance and repair services to customers worldwide.

Ian Yallop, chairman of SGP commented: "We have been able to apply our extensive experience of large and small-scale industrial units to the project at Norwich Airport, to create a facility that meets KLM UK's engineering needs as well as reinforcing the airport's position as a leader in aircraft maintenance, repair and overhaul.

"The design of this type of project is very technical and requires a detailed knowledge of airport operations. CAA requirements are focused on safeguarding flights, and we had to think in a new way – working from the sky downwards and taking into account a range of variables including radar requirements, wind shear and navigation systems."



REFURBISHMENT

'Regeneration' of Bristol office by Scott Brownrigg wins planning

Scott Brownrigg's design for the redevelopment of two-storey office building, Aztec 1000, at Aztec West in Bristol for client CEG, has received planning approval from South Gloucestershire Council.

The planning allows for the extensive refurbishment of the office building, originally constructed in the 1980s, to reposition it for modern day office requirements. The £9m scheme looks to deliver a "significant improvement of the appearance of the building" with an additional floor, and complete reworking of the external envelope giving a "dramatic contemporary exterior," said the architects.

Scott Brownrigg have reconfigured the internal layout of the building, including introducing a new gymnasium, new central core, reception and lakeside cafe restaurant.

The approved scheme will result in a "highly energy efficient" office, with an improved public realm, better accessibility and a considerable increase in cycle parking.

The 'regenerated' Aztec West will, said Scott Brownrigg, also "offer the socio-economic benefits associated with ensuring ongoing occupancy and delivering additional floor space."

The scheme is due to be completed in mid-2021.

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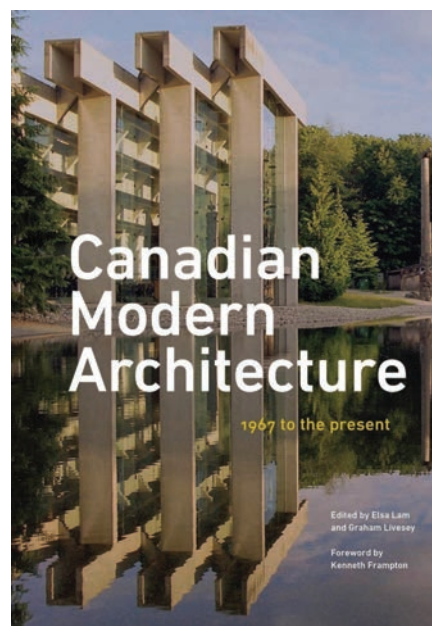
Anthology provides a comprehensive review of the past five decades of Canadian architecture

Co-published by *Canadian Architect* magazine and Princeton Architectural Press, 'Canadian Modern Architecture, 1967 to the present' was recently published in Toronto. Co-edited by Elsa Lam, editor of *Canadian Architect*, and Graham Livesey, professor at the University of Calgary, it is the first comprehensive review of Canadian architecture to appear in many years.

The 15 chapters were written by a variety of "top architectural scholars and critics" in the country, including George Baird, Brian Carter, Ian Chodikoff, Odile Hénault, George Kapelos, Lisa Landrum, Steven Mannell and many more.

The 50-year retrospective begins with the nation's centennial projects, including Expo 67, and proceeds to explore national institutions and movements, regional and indigenous architectural tendencies, and how Canadian architects interpreted major international trends. The book also examines the influence of architects in Canada's three largest metropolitan areas – Toronto, Montreal, and Vancouver.

The book is divided into four themed sections: National Movements, International Influences, Regional Responses and Centers of Influence. Topics covered include the 'megastructure' projects of the 1970s, the influence of



Museum of Anthropology at UBC, Vancouver, British Columbia. Erickson/Massey, 1976. Photo © Christopher Erickson

postmodernism in the 1980s, and the "distinct architectural legacy of Canada's diverse regions," commented the publishers.

SUSTAINABILITY

Architecture firms pledge net zero strategies for future projects

Architects Perkins and Will, in partnership with Penoyre & Prasad, have pledged to offer "net zero-carbon operational design strategies" for new and retrofit buildings from this month, to help address real estate's impact on the climate.

The built environment contributes 40 per cent of the UK's total carbon footprint, according to the UK Green Building Council (UKGBC). "Designing in a net-zero carbon target for a building's operations has a crucial role to play in cutting this figure across the property industry," said the architects, by "slashing energy usage while helping future-proof assets against a backdrop of increasing regulation.

The two recently merged practices will

produce a Zero Operational Carbon Strategies Report for each new build or retrofit project at RIBA Stage 2 (at the end of the concept design) "at no additional cost to the client."

The aim is to "encourage more sustainable buildings to be developed by making the process easier for investors and developers. The report will "make clear to clients what the operational emissions gap of their buildings will be, and how best to close it in line with the UKGBC's 2019 definition of net-zero operation, helping to "better inform clients' decisions in line with the UK's 2050 net-zero target."

Reaching net-zero operational carbon for buildings begins with minimising

energy demand for heating and cooling directly through considerations such as building orientation, insulation, controlled ventilation and heat pumps. From there, design strategies that maximise natural light are proven to save significant energy from reducing the reliance on artificial lighting, while also boosting human wellbeing.

As much of the energy demand as possible for buildings must be met through on-site renewable energy and, taking plug loads into account, the remaining residual energy demand must be offset through direct investment in offsite renewable sources or through a credible and validated offset mechanism.

Grimshaw has also recently announced its net zero strategy, in which the practice has set a target for all of its design work to be "net zero carbon ready" during the new decade. In addition, all of its studios are to operate "on a net zero basis," and Grimshaw has designed the Dubai Expo 2020 Sustainability Pavilion.

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FUTURES

Arup report paints best and worst case scenarios for the planet's future

A new report '2050 Scenarios: Four Plausible Futures' published by engineering consultancy Arup, depicts "how we could live in 2050, based on the intersection between our planet's health and societal conditions." The report discusses how, in one of four future planetary scenarios, an ever-expanding population and declining planetary health could see "gigantic air domes combatting the leading cause of death, air pollution, and the total destabilisation of global weather patterns."

The four "divergent" futures in the report include – Humans Inc., Extinction Express, Greentocracy and Post Anthropocene – and they range from the collapse of our society and natural system, to the two living in sustainable harmony.

The report is intended to inform decisions on the design and planning of our built environment. It covers all elements of the built environment – from design and architecture to political agendas, smart technology adoption to healthcare access and population control. Each scenario has been developed using "detailed research of trends and projections from think tanks,



governments, statistical data, NGOs and research institutions, and shows how progress towards achieving the United

Nations Sustainable Development Goals (UN SDGs) can drive change for our planet and outlook for humanity."

BOOK

Are our cities ready for the age of the driverless car?

As we approach "a new stage in our urban transformation," says RIBA, its new title 'Automatic for the City: Designing for the Age of the Driverless Car' looks to "prepare urban designers and city planners for the introduction of connected autonomous vehicles (CAVs), to our streets."

Driverless cars are set to become a common feature in the wealthiest urban environments as early as within the next 10 years, authors Riccardo Bobisse and

Andrea Pavia predict.

"With the revolution that was the private automobile after World War One, for example, many cities underwent an unprecedented transformation," says urban designer Bobisse. "We are now approaching a similar revolution, for which we must be prepared."

As a result of this prognosis, practical guidance on "transformative city-wide design principles" are illustrated in the book via two case studies – focusing on

the two major metropolises of London and Los Angeles.

Using the analogy of a human body to represent the city, with its "mutation and revolution throughout time and history," the book "tries to envision ways in which cars and CAVs can coexist, providing insight into the future of our urban environments." 'Automatic for the City' "reflects the relationship between new technologies and urbanism, as well as providing an agile urban design manual." It features comprehensive illustrations, including "masterplans of spatial arrangements enabled by new technologies."

The publication aims to "inform, inspire and encourage industry professionals to design for what could be just around the corner," said RIBA.

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EDUCATION

Design Engine appointed for new Oxford student accommodation

Design Engine have been appointed for a new student accommodation project at St Hilda's College, University of Oxford, following an invited competitive interview, which reportedly "focused on the practice's design approach rather than any single definitive solution."

The project encompasses new undergraduate accommodation, gym and academic support facilities as part of a second phase of development at the college.

Design Engine have been tasked with formulating a proposal that looks to enhance the grounds of St Hilda's College and its location on the banks of the River Cherwell, opposite the Oxford Botanic Garden. The site includes a Grade II listed student residential building designed by Peter and Alison Smithson (formally opened as the Garden Building in 1971) and the



Jacqueline du Pre Music Building by van Heyningen and Haward Architects opened in 1995.

This new project is the second part of a two-phase strategic development. The first part, started in 2016 with a Gort Scott scheme, is due for completion in the autumn of 2020. This new project will

enable the college to realise its wish to be able to offer accommodation to all undergraduates where desired, for the duration of their degree.

Subject to the granting of planning consent for this second phase, the project would deliver additional student rooms for the start of the 2023/24 academic years.





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VIEW POINT

Architect Anthony Thistleton gives the lowdown on the carbon realities of timber, and explains why misconceptions around CLT on fire safety grounds need to be corrected



Vitsoe HQ, Leamington Spa © Dirk Lindner

As the world finally wakes up to the task ahead in mitigating climate breakdown, there is a lot of discussion about trees and urging reforestation to help reduce atmospheric carbon and limit global warming. Many commentators refer to trees using terms like “miracle machines that build themselves and convert CO₂ to oxygen.”

Of course this is true, we need to plant trees on an unprecedented scale and pace if we are to have any chance of meeting the IPCC's targets for 2030. However, while forests are great carbon stores, once the

trees are mature, their carbon emissions balance the absorption leading to a net zero contribution to GHG reduction. For a fast growing spruce or pine, this takes about 50-80 years, for an oak, this takes around 200-250 years.

If we are serious about using trees to combat climate change, we need to therefore remove the trees once they are mature, store the timber and plant new trees. One of the best long-term stores for timber is in buildings. We can construct buildings that last over 100 years using timber and using modern forms of

If we are serious about using trees to combat climate change, we need to remove the trees once they are mature

engineered timber, such as glulam and cross-laminated timber (CLT). We can also replace materials like concrete and steel, which have large carbon footprints – together these two materials are responsible for 15 per cent of global CO₂ emissions.



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The UK leads the world in the range and scale of implementations of CLT technology

So the arrival of these methods of timber construction is timely. A number of innovative architects, engineers, developers and contractors in this country have pioneered the use of CLT as an alternative to concrete and steel in more, and larger buildings. As a result of this, the UK leads the world in the range and scale of implementations of this technology with around 600 completed CLT structures.

However, in the aftermath of the tragedy at Grenfell Tower in 2017, the UK Government introduced legislation that threatens to damage the perception of timber as a construction material and could have a significant impact on the industry.

As a result of the ban on combustible materials in the external walls of residential buildings taller than 18 metres, there is an erroneous perception that CLT may be a fire risk. This is completely untrue.

It is important to understand how engineered timber performs in combustion, as it actually has a number of benefits that offer an improved performance in the event of a fire in comparison to other building technologies.

In the first instance, in a CLT building there is no increase in the likelihood of a fire starting. The majority of fires ignite through electrical faults and accidents, such as cigarettes left on furniture. If a fire starts in a CLT building, the burning causes the formation of a char layer on large timber elements which actually protects the timber beneath and inhibits further deterioration.

Once a fire starts, the key issue is that it should be contained. Most catastrophic fires occur because a fire has spread dramatically from the source of ignition. In a CLT building, with walls and floors made from solid timber, the fire is unlikely to break out of the compartment in which it starts, even if the fire fighters take a long time to attend. When we design in CLT we often protect the CLT with plasterboard, and, where we rely on the charring for fire protection, we increase the size of structural members to account for the loss of the charred layer.

In many framed forms of construction, a 30-minute firewall will be exactly that, and after half an hour the fire will breach that wall, spreading to adjacent spaces. In a CLT

wall, it will continue to act as a barrier to the fire well beyond the fire rating.

The fact is that all materials can be adversely affected by fire – steel melts and concrete spalls (explodes). The key is that designers understand the material's performance and design accordingly. We are convinced that when designed properly, CLT structures are at least as safe as other forms of construction.

The challenge we now face is to provide the testing data and other material required to ensure that buyers, funders, underwriters and politicians understand this as well as the professionals who use CLT so that we can rely on regulations that are based on evidence.

Across the world, countries are amending their building regulations to support taller engineered timber structures, supported by extensive testing. In the next decade, the UK's lead in this ground breaking technology is likely to be eclipsed as the rest

of the world adopts the techniques that were initiated here.

More than this, however is our responsibility to the environment – by creating a long term store for CO₂ absorbed during a tree's growth and substituting high polluting materials like concrete and steel, CLT can be a key agent in the drive to reduce global atmospheric carbon, but there is another factor. If we create a large, sustainable market for timber, the widespread adoption of CLT can drive the reforestation needed – over the last two centuries, every country that has increased its timber manufacturing capacity has increased its forest cover by a commensurate amount. By moving to CLT we can better ensure large scale tree planting than by Government urging, and grants.

Anthony Thistleton is director and co-founder of Waugh Thistleton Architects



Dalston Lane © Daniel Shearing



Look who's arrived

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PRACTICE PROFILE



Assembledge+

Already having wide-ranging expertise, Hollywood, USA-based practice Assembledge+ saw its urban planning capabilities greatly enhanced when the founder took the unusual step of recruiting his father to join him. Sébastien Reed reports

After graduating with a Bachelors and Master's degree in architecture from Tulane University, New Orleans in 1991, founder and principal of Assembledge+ David Thompson spent his first years as a graduate focusing on furniture design. Interested in the reduced scale of design, he used the craft to continue developing his skills as a young architect until 1997, when Assembledge+ was born.

After a number of small architectural commissions, a furniture line and a short stint working in New York City, David decided to refocus. "I decided to return Assembledge+ back to my roots in Los Angeles," he says, "to help transform the city where I grew up and that I love so dearly."

"The name Assembledge+ was born out of the genuine belief in the art of collaboration," says David, at "a late-night charette with a friend in which we decided that we could no longer continue until we agreed on a name for the firm."

The budding architect saw it as vital to choose a name that communicated his enthusiasm for putting together the different sequences of design process to produce a precise and considered architectural whole – one that sits firmly on the leading edge of contemporary discourse. The additional '+' symbol provides further nuance, signifying the practice's holistic approach that strives for "better, more efficient, and innovative ways to construct modern living and working environments."

In the blood

Since its foundation, the practice has grown strategically to its current 14 staff; comprising 12 designers, a marketing and communications specialist, and office manager tasked with the smooth running of the firm's premises, which is located on LA's famous Sunset Boulevard.

David credits the neighbourhood and its unique buzz as a core



CACTUS CLUB

One of several restaurants for the Cactus Club chain that Assembledge+ worked on is at Station Square in Vancouver, Canada

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OAKDELL

The Oakdell Residence, Studio City, Los Angeles, won Assembledge+ an award from the American Institute of Architects in 2017

© Michael Weschler

influence for the practice: “I believe that Hollywood has embodied a pioneering spirit that is different than anywhere else in the world. I am excited to see what that spirit has in store for future generations, and I wanted my practice to be at the centre of that energy.”

On the challenges of growing, David prioritises creative interest over an uncontrolled amassing of projects: “When we discuss growth, one fundamental objective is to maintain a connection to the work and the process.” In 2011, an important appointment to the firm cemented another close connection within the practice that was much closer to home.

David’s father Richard is an award-winning architect in his own right, and was looking to leave the corporate architectural world and found a consulting practice focused on urban planning. David however suggested that he bring his expertise to the team and open an Urban Planning division at Assembledge+. “Our story is not your typical father-son partnership,” says David. Richard continues: “Most father-son architectural practices begin with the son joining the father’s practice. We did the opposite.”

Richard’s experience in urban design and planning along with David’s residential, hospitality and design portfolio meant that the scope of solutions offered by Assembledge+ was broadened. More profoundly, Richard hoped that recruiting his own flesh and blood would “enrich the dialogue and views of how architecture and planning co-exist and are mutually reinforcing.”

As the most senior member of the practice as joint principal, Richard contributes a wealth of knowledge of the architectural profession amassed over his 45 year-long career, as well as watercolour painting classes for what he calls his “young computer genius” colleagues. Nonetheless, he is mindful that Assembledge+ is his son’s creation, and he sees his role as to make David as successful as possible.

Lending an ear

Both David and Richard are agreed that being good listeners is core to their profession and approach in practice. They are very

conscious that two-way communication is key to balancing clients’ comfort with their desires, and ensuring their inclusion in the thought process and their understanding of how Assembledge+ and the mechanisms of design work.

Richard remarks how sensitive larger-scale design and urban planning can be due to projects’ complexity, and what it means for the designer: “They have the ability to affect whole communities, businesses, campuses and urban districts, and therefore come with huge responsibility, the first of which you might say would be to ‘do no harm.’” As well as emulating the Hippocratic Oath, Richard advocates giving all parties a voice in the process, listening, and “crafting strategies for meaningful dialogue towards consensus.”

This democratic approach has not resulted in any particular signature style, but more – at least across the practice’s architectural remit – certain “modernist sensibilities.” David pinpoints Californian modernism as a central theme; including close attention to indoor-outdoor living, open plans, extensive use of glass and taking full advantage of the favourable southern Californian climate.

To tease out the fruits of lateral thinking on residential projects, the architects often like to kickstart the design process not by focusing on the size of the house, but instead the size of the site. “This facilitates an approach that allows us to investigate how the living spaces can integrate with the natural surroundings, extending the users’ experience into the landscape,” says David. In short, paying careful attention to the context that a project inhabits is vital to the practice’s design approach.

No detail is too small

Both David and Richard acknowledge the importance of getting the details right, for which they rely on high quality from contractors and tradespeople. “We believe that the greatest idea can fall flat on its face if it is not executed properly,” says David. “We generally take a collaborative approach with the builders that we work with in order to have those trades that are touching and executing the details a part of the design process.”

According to Richard, the practice’s embrace of quality workmanship and craft is best exemplified across the numerous Cactus Club restaurants that they have worked on. Using warm woods, handcrafted tiles, articulated ceilings with focused lighting, audiovisual and air handling equipment together with world-class fine art, Assembledge+ has crafted environments that have become synonymous with the Cactus Club brand.

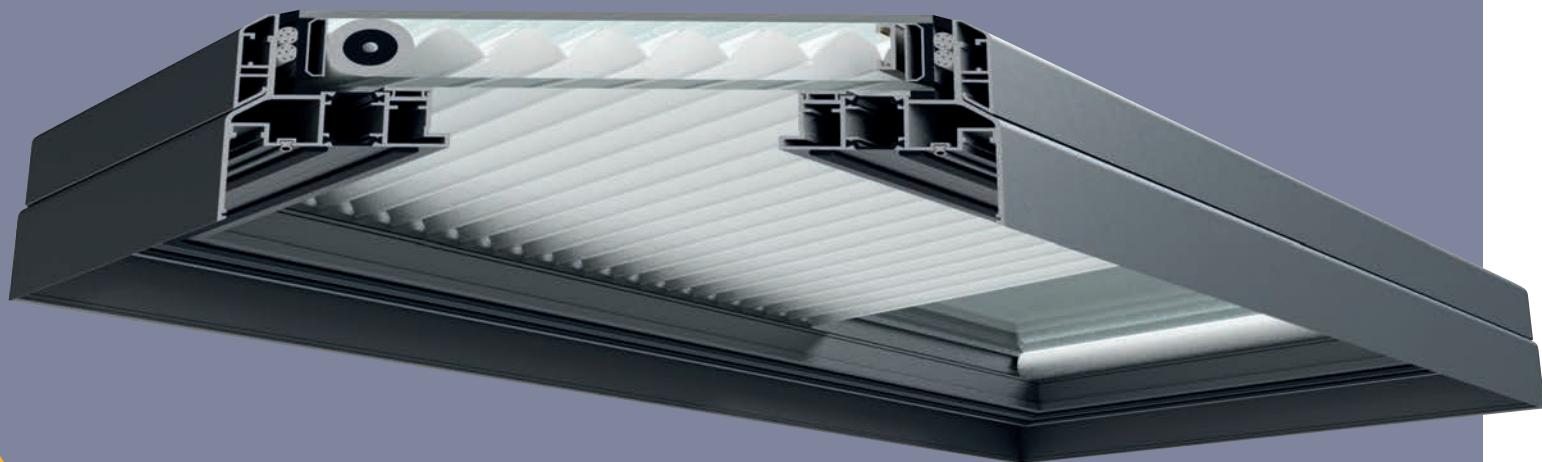
Currently, Assembledge+’s project pipeline is brimming with a broad set of design typologies; several high-end residential projects in various stages of development dotted around the US, a restaurant concept in British Columbia, Canada, a campus master plan for the University of Hawaii community college in Hilo on the Island of Hawaii, and a planning project for the University of Southern California.

The growth of their portfolio is, in part, down to the numerous awards which have brought attention to the firm, including a special mention at the Architizer awards for a temporary installation called The Lost Orchard, and an American Institute of Architects award for their residential scheme the Oakdell Residence in Studio City, LA.

Defined by its goals and challenges, Assembledge+’s future strategy will consist of implementing the right systems to take on yet more complex projects and typologies while doubling down on marketing efforts to locate new revenue sources. David concludes: “While our primary goal is to produce great architecture, it is also my goal to build a business that is achieving success in all the other facets that gauge business prosperity.” ■

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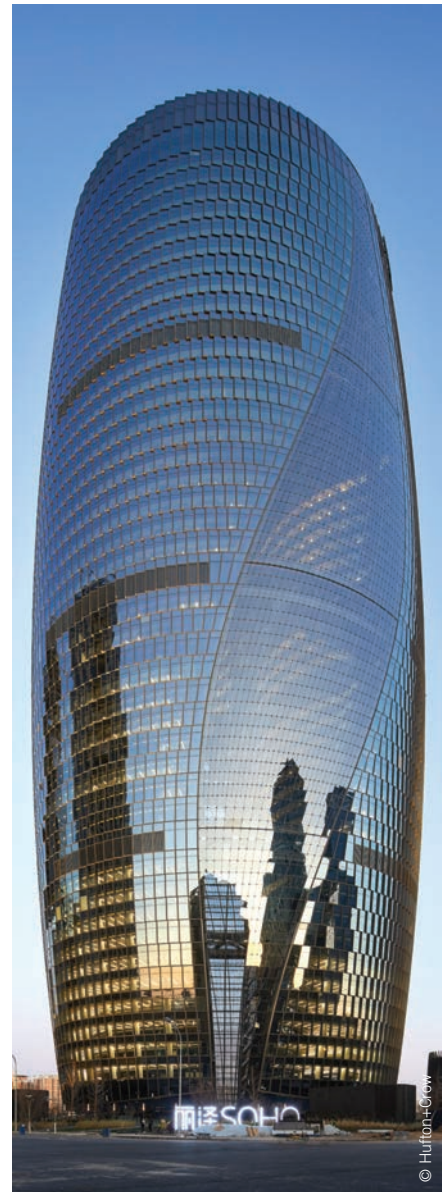
INTERNATIONAL FOCUS

Showcasing the latest projects from around the world – visit www.architectsdatafile.co.uk for full information



ROSE HILL, NEW YORK CENTRARUDDY

Rockefeller Group recently celebrated the official topping out of Rose Hill. Located in the NoMad neighbourhood at 30 East 29th Street, the 45-storey 'full service' condominium building encompasses studios to four-bedroom homes that come in a variety of layouts, starting from \$1.2m. The residences include private outdoor space, and a collection of penthouses on the top floors of the building. With architecture and interior design by CentraRuddy, the building is clad in a bronze-tone facade with "detailing that tries to frame the expansive glass windows," said the developers. Lighting will illuminate the tower's base and crown to "highlight the building's articulation." A selection of amenities have been designed to embrace a communal atmosphere that looks to encourage a social and active lifestyle, with select offerings curated by a collection of New York-based businesses.



LEEZA SOHO, BEIJING ZAHA HADID ARCHITECTS

Located on Lize Road in southwest Beijing, Leeza SOHO tower anchors the new Fengtai business district – a growing financial and transport hub between the city centre and the recently opened Beijing Daxing International Airport to the south. The 45-storey, 172,800 m² tower responds to demand from small and medium-sized businesses in Beijing for flexible and efficient Grade A office space. The tower's design divides its volume into two halves enclosed by a single facade shell. The emerging space between these forms extends the full height of the tower, creating what's thought to be the world's tallest atrium (194.15 m). It "rotates through the building as the tower rises to realign the upper floors with Lize road," said ZHA.



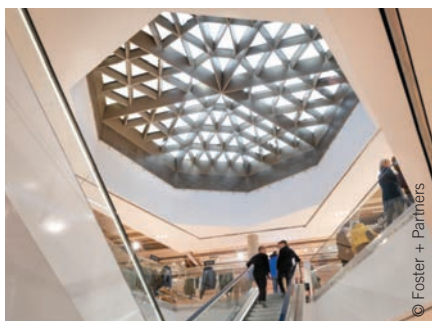
AMSTELDOK, AMSTERDAM BDG ARCHITECTURE + DESIGN

BDG architecture + design have won the FX Awards Project of the Year by a UK-based studio for Amsteldok, a new Amsterdam campus for WPP. The previously vacant Rivierstaete building (as it was formerly known) has been transformed from a large traditional office building into a 19,000 m² workplace that supports the 1,500 people that work in it. Preserving the concrete structure has allowed the building's character to remain while reducing environmental impact. The entire building meets BREEAM Very Good certification standards – featuring rainwater buffering and retention, green roofs, advanced daylight system control, advanced climate system control and a class A energy rating.



GALLIUM VALLEY SCIENCE PARK, CHINA LWK + PARTNERS

Global architectural practice LWK + Partners has been named 'Gold Winner for Best Futura Project' in the MIPIM Asia Awards 2019 for the design of Gallium Valley Science Park in Hangzhou. The park is at the centre of the Cloud Valley technology cluster in Hangzhou, China, and aims to promote the development of e-commerce and the artificial intelligence sector. The project "advocates a new office-park typology that blends greenery and communal spaces in the work environment, encouraging work-life balance," said the architects. It will house laboratories, co-working spaces, sports facilities, exhibition venues, restaurants and retail outlets to make up an all-round programme for its future users.



GALERIES LAFAYETTE, LUXEMBOURG FOSTER + PARTNERS

The opening ceremony for the Galeries Lafayette store in the centre of Luxembourg was held recently. It is the first building to open as part of a major mixed-use development by Foster + Partners, in collaboration with Tetra Kayser. The building's floorplates are designed to accommodate a single department on each floor, with escalators rising through the centre topped by a rooflight. The rooflight lets daylight into the heart of the store, while providing "a strong sense of orientation for visitors," said the architects. A faceted steel structure, set in the landscaped surroundings, envelops a rooftop restaurant and bar, protecting it from the cold winter wind and making the roof garden habitable all year round.

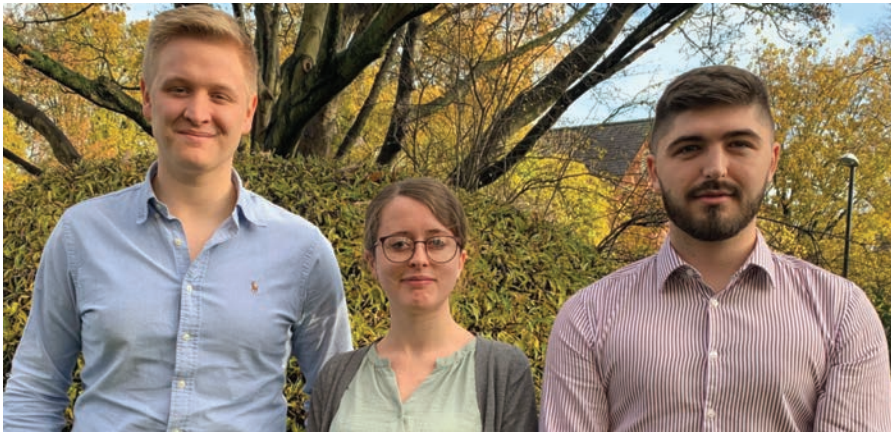


MEIXIHU INTERNATIONAL CULTURE & ARTS CENTRE, CHINA ZAHA HADID ARCHITECTS

The new Culture & Arts Centre by Zaha Hadid Architects incorporates a contemporary art museum (MICA), an 1,800-seat theatre with supporting facilities, and a multipurpose hall. Providing views of the adjacent Meixi Lake from the city and giving access to the parks and walking trails on the lake's Festival Island, this ensemble of three separate cultural institutions creates external courtyards where pedestrian routes intersect for outdoor events and sculpture exhibitions. Designed for a variety of performing arts, the Grand Theatre provides all front-of-house functions in "sculpted" lobbies, bars and hospitality suites, as well as the ancillary functions including administration offices, rehearsal studios, backstage logistics, wardrobe and dressing rooms.

NEW ARRIVALS

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



BEN CRAYTON, REBECCA HAZZARD & ANDREW STANWAY BREWSTER BYE ARCHITECTS

Leeds based architecture practice, Brewster Bye have appointed three architectural assistants as part of its future talent development programme and ongoing expansion. Rebecca Hazzard joins the practice as a RIBA Part 2 architectural assistant with Andrew Stanway and Ben Crayton as RIBA Part 1 architectural assistants. All three will work with the firm's established teams on projects in both the residential and commercial property sectors. Cambridge University graduate Rebecca has a 2:1 BA in Architecture as well as a Merit in Architecture MArch from the Manchester School of Architecture. She completed her two-year Part 1 qualification at two practices in Cambridge, working as an architectural assistant. Andrew achieved a 2:1 BA in Architecture from Leeds Beckett University and has experience working in an architectural practice in Leeds, where he started to learn Revit software skills. Ben has recently graduated from Northumbria University, where he achieved a BA in Architecture; he has a product design background and is a talented 3-D modeller.

Chris Austin, managing director at Brewster Bye Architects, said: "Every year we employ at least three new architectural assistants and have found that their dedication to the profession and willingness to learn is exceptional. Our latest talented trio are a welcome addition to our ever expanding and experienced team." The firm now employs a team of 26 people.



RUTH EVANS & JASON EVANS CPMG ARCHITECTS

Architecture firm CPMG Architects have announced two senior promotions within its head office team; Ruth Evans and Jason Evans. Ruth Evans has been promoted to associate and will "head up and nurture" a team of designers on the delivery of high-spec interior design schemes for clients, as well as working with the senior management team to continue growing the company's client base. Jason has also been promoted to associate, after initially joining the team in 2000 following his studies at the University of Derby. He has built up "vast amounts of experience within CPMG," said the firm, leading delivery of work across a range of sectors.



ELAD EISENSTEIN RAMBOLL

Engineering, design and consultancy firm Ramboll have announced the appointment of Elad Eisenstein as director of cities and regeneration. He will lead Ramboll's urban regeneration team, focusing on major cities projects, "integrating across transport, infrastructure, environment and energy – bringing a wealth of experience in addressing future urban challenges," said the firm. He has two decades of experience specialising in leading, designing and delivering complex and large-scale urban projects across the globe. He has won several international design competitions and advises public and private sector bodies on urban design and large scale planning.



MARIA KAROLIDES LK2 GROUP

LK2 Group have recently bolstered their team with the appointment of a senior architect, Maria Karolides. Maria – who has experience working in the education sector since 2001 – will be "leading the way on a number of high-profile schemes nationally," from conversions to mixed-use projects blending together sport and education. Throughout Maria's career, she has worked to deliver numerous buildings for the University of Lincoln, SEN facilities and primary school facilities. Notably, she was led on award-winning schemes such as Lincoln University's GCW Library, The Engine Shed venue, and Lincoln Performing Arts Centre.

CPD FOCUS

The latest CPD courses, seminars and documents for architects

DESIGNING FOR FLOOD RESILIENCE, RESISTANCE AND RECOVERABILITY



Delta Membranes' CIWEM and RIBA-approved Double Point CPD 'Flood Resilience' seminar aims to explore Flood Resilience, Resistance and Recoverability and the use of technologies which have been used historically in below ground structural waterproofing in a variety of different situations from domestic to commercial structures. With guidance of current Standard, BS85500:2015, the seminar will provide designers with a deeper understanding of the concepts in identifying flood resilience and resistance design and the use of suitable materials and construction techniques. 01992 523 523 www.deltamembranes.com

KINGSPAN CPD OFFERS EDUCATION IN BB101



Kingspan Insulation has released a new, RIBA accredited CPD providing advice on how designers can use insulation specification to meet the thermal comfort requirements within Building Bulletin 101 (BB101) – Guidelines on ventilation, thermal comfort and indoor air quality in schools. The CPD provides a comprehensive overview of the document, which was extensively revised in 2018 and aims to achieve healthier learning environments. Amongst the key changes are stricter requirements for indoor air quality and a new adaptive approach to how thermal comfort is assessed. 01544 387 384 www.kingspaninsulation.co.uk/cpd

NEW MASTIC ASPHALT RIBA CPD PRESENTATION



The Mastic Asphalt Council (MAC) has launched its first ever RIBA-approved CPD presentation entitled 'Black to the Future'. The presentation covers:

- What mastic asphalt is, its history and its relevance in today's market
- Performance benefits such as durability, waterproofing and fire safety
- Specification of mastic asphalt to achieve sustainability targets
- Design considerations when specifying mastic asphalt versus alternative materials
- Diversity of mastic asphalt applications

The seminar discusses how mastic asphalt may be perceived as an old fashioned building material, but like many long-lasting materials, it is being re-imagined and modified and re-examined as a highly relevant building material for today.

Sustainability is a key area of discussion and the fact that any project receiving the performance benefits of an advanced mastic asphalt system will receive a 100 per cent CO₂ neutral solution. Design considerations are discussed, such as weight loading, access requirements and speed of installation. Alternative options and lifecycle costs are analysed, as well as the diversity of mastic asphalt applications for both new build and refurbishment projects for the entire building envelope, including roofing, paving, screeding, flooring, car parking and tanking. The presentation lasts approximately one hour and counts towards CPD points. info@masticasphaltcouncil.co.uk www.masticasphaltcouncil.co.uk

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For further information or to book your RIBA accredited CPD seminar, please visit: www.rockfon.co.uk/learning/continuing-professional-development

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Mapei's high-demand training dates revealed for 2020



Mapei has unveiled its extensive list of training dates for 2020, as part of plans to continually utilise its impressive training facility based in Halesowen, West Midlands. Following a successful first year of training courses at the facility situated at Mapei Academy, a total of 51 days have been dedicated to training, covering Ceramic Tiling, Resilient Flooring, EWI, Resin, Ultratop Loft, Concrete Repair and Basement Structural Waterproofing.

There will be 12 dates dedicated for each

of the Ceramic Tiling and Resilient Flooring training courses, six dates for both EWI and Resin Flooring, and five dates each for Ultratop Loft, Concrete Repair, and Basement Structural Waterproofing. A team made up of Chris Myatt, Adrian Jennings, Neal Perryman, Adrian Jones and Jeremy Mann, as well as relevant product line experts, will be on hand to provide information and expertise at each tailored training course.

Bookings from distributors, contractors, designers and engineers are welcomed, and

can be tailored to specific needs and requirements. All training delegates will receive presentation notes, refreshments, a buffet lunch, a factory tour and Mapei goodies.

The dates are as follows:

Ceramic: January 7, February 4, March 3, April 7, May 5, June 2, July 7, August 4, September 8, October 6, November 3, December 1

Resilient: January 9, February 6, March 5, April 9, May 7, June 4, July 9, August 6, September 10, October 8, November 5, December 3

EWI: January 23, March 26, May 28, July 30, September 24, November 26

Resin: February 25, April 28, June 30, July 28, September 29, November 24
Ultratop Loft: January 21, March 24, June 23, August 25, October 27

Concrete Repair: March 17, May 12, July 2, September 15, November 10
Basement Structural Waterproofing: February 27, April 2, June 11, September 17, November 19.

Please email to book your place on one of Mapei's coveted training courses.

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Key research project offers hope for increased use of timber in the built environment

George Barnsdale is continuing its involvement in a three year pan-European research project led by the BRE, which it hopes will encourage architects to specify more sustainable timber products in construction.

ClickDesign aims to develop a performance based specification protocol to enable a software tool for architects and specifiers to use to embed service life performance specification for timber. The studies will help to increase market confidence with users for selecting wood as a



reliable product and enhance an optimised performance of timber in the built environment.

The stated aims of the research are:

Robust forecasting of aesthetic changes on surfaces developing the kinetic and/or intensity of variation in such changes due to location, microclimate, architectural design and materials used for construction.

Studying spatial distribution of fungal decay and its interaction with moisture transport and resulting gradients in buildings. Development of a termite/insect performance measure for the first time in Europe.

Robust integrated performance classification based on the whole set of external parameters – the foundation established for decay, material and integrity aspects, aesthetic limits and performance and termite/insect performance aspects.

All of this data will be made available at

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the click of a button, giving architects the reassurance they need to specify timber which is a much more sustainable resource than traditional construction methods.

Currently, 18 organisations including engineers, architects, trade bodies, forest product manufacturers and public authorities are involved from 6 countries (Germany, UK, Finland, Slovenia, Norway and Sweden). George Barnsdale is currently the only UK timber windows manufacturer involved in the industry group and has also been involved in numerous research projects in the past.

01775 823000 www.georgebarnsdale.co.uk

Norbord expands team with new Manager



Dan Clarke has joined the team at Norbord in the role of National Sales Manager. Previously National Sales Manager for Kronospan, with 24 years' experience in the panel manufacturing and timber distribution industry Dan's skills will be put to good use in his new role at Norbord. Dan will be busy extending Norbord portfolio in the new build, off site manufacturing, modular, timber frame, MMC's and timber engineering sectors. Dan commented: "I am excited to join Norbord and am looking forward to providing support and guidance to the team to further build the brand and encourage specifiers to use Norbord products nationwide in all areas of property building markets".

www.norbord.co.uk

Apprentice Decorator of the Year 2019



Bell Group's Gatis Celmins, 35, has emerged as the winner of the 2019 Apprentice Decorator of the Year competition after a gruelling three-day contest hosted at the WorldSkills UK LIVE event at Birmingham's NEC. The Inverness UHI apprentice

triumphed over eight other finalists thanks to the quality of his careful setting out and excellent time management, completing the complex design set by competition sponsor Crown Paints to an exceptionally high standard. Gatis said: "Reaching the final meant a great deal to me, and I'm happy to have achieved one of my goals."

info@crowntrade.co.uk

A. Proctor Group win at Awards



The A. Proctor Group received two awards at the prestigious CMAs (Construction Marketing Awards) in London last month. The A. Proctor Group won two categories: "Best Use of Advertising" and "Best Big Budget Campaign". Their winning entry, a fashion-inspired campaign, featured five fantastic costumes that were made completely

out of their high-performing construction membranes. CMA judges on the night of the award commented that A. Proctor Group's campaign was "innovative and exceptionally well executed."

01250 872261 www.proctorgroup.com

Crittall promises new streamlined flow



Crittall has unveiled a major investment initiative that will revolutionise its processes from initial estimate through to final delivery and installation. The company's Strategic Investment Programme will streamline every aspect of product ordering, manufacture and supply while retaining and enhancing the hand-built craftsmanship and bespoke nature that are hallmarks of its range of windows, doors and screens. "We are investing some £1.5 million to provide a clean flow of operation from the moment an order is received to processing it directly onto our CNC machinery," says Crittall Windows Managing Director Russell Ager.

01376 530800 www.crittall-windows.co.uk

This must be just like living in Paradise!



A £52 million student accommodation development in Coventry is using smoke and heat exhaust ventilation (SHEV) systems from SE Controls to enhance fire safety by providing smoke free escape routes for almost 1000 students living at Paradise Student Village.

Located on Paradise Street and managed by student accommodation provider, AXO Student Living, the development includes studio rooms and study bedrooms, arranged in clusters, as well as a cafe bar, cinema and gym.

Designed by Fraser Brown Mackenna Architects and constructed by Galliford Try, the new building incorporates three towers with 10, 12 and 14 storeys respectively, together with an extensive 3 storey town house structure that is arranged in a 'wall' below the towers and adjacent to the city's ring road.

To meet fire safety and smoke ventilation requirements, the buildings are separated into six individual fire zones with dedicated smoke control solutions from SE Controls serving each zone, which protects stairwells and corridors by keeping escape routes clear of smoke if a fire should occur.

The town house is separated into three zones with the 'cluster corridor' in each being protected by a mechanical smoke ventilation system, using duty and stand-by SHEVTEC® fans, with replacement air supplied by automatic opening lobby dampers connected to a natural air inlet shaft.

In addition, two of the town house zones also have a stair lobby, each of which is protected by an automatic louvre vent at the head of the stairs. Once triggered by a fire alarm signal, the corridor dampers on the fire floor open, together with the stair louvre, allowing smoke to be extracted from the building. Also, Manual Control Points (MCP) are located throughout the town house zones, which enable the system to be managed and reset by fire service personnel.

The three high-rise blocks also use SE Controls mechanical smoke extraction, but in a duplex push-pull system that enables smoke to be removed from corridors through one of two smoke shafts, depending on the location of the fire, to keep escape routes clear.

Each of the main stair cores in the tower blocks are also protected with roof mounted automatic louvre vents, which allow smoke and heat to be vented, keeping them clear of smoke and hot gases to aid escape.

The system is designed so that every tower incorporates two smoke shafts, each of which is connected to a duty and stand-by SHEVTEC smoke extraction fan set capable of running in either direction. In the event of a fire, both duty fans will start with one shaft extracting the smoke, while the other fan runs in the opposite direction, which helps purge smoke by pressurising the other shaft and corridor.

A key advantage of this approach is that the direction of operation is dependent on the location of the fire so that the extract fan

shaft is always closest to the source of a fire and the pressurised replacement air is supplied by the farthest shaft for more rapid and effective smoke removal.

Each corridor incorporates a SHEVTEC lobby damper at each end as well as an automatic smoke door by the lift lobby, which open when a signal is received from the building's alarm system.

The control of the complete smoke ventilation and extraction system is handled by 12 SE Controls OS2 SHEVTEC controllers with integral failsafe battery backup, which are linked to a series of OSLoop Coordinators throughout each of the six fire zones. OS2 MCPs and tamperproof MCPs are also installed to allow the fire service to manage the system's operation and reset it after any fire event.

SE Controls Project Manager, Regie Gadayan, explained: "This is an ideal example of how we combine our technical expertise, immense experience and innovative products to develop a highly effective solution for this flagship residential project."

He added: "The Paradise Student Village is an innovative development itself and is providing much needed high quality accommodation for students attending the city's university and I'm delighted that we have been able to play a key role in their safety."



01543 443060 www.secontrols.com

SPSenviowall EWI Systems Recognised at INCA Awards 2019



One of the first developments of its kind to use SPSenviowall's RendaClad System has been recognised at a leading national awards ceremony including collecting a new award for the first time.

Every year, the Insulated Render and Cladding Association (INCA) hold the INCA Awards to recognize the innovation and excellence in the external wall insulation (EWI) industry. Held at the MacDonald Burlington Hotel on November 28th, guests were entertained by comedian Hal

Cruttenden and presented with their awards alongside their colleagues and peers.

Leading render and external wall insulation company SPSenviowall and external wall insulation sub-contractor SERS Ltd scooped the Heritage Award for their work on the Bradley Lane buildings, based in Newton Abbott, at the Insulated Render and Cladding Association (INCA) Awards.

The properties on Bradley Lane utilises SPSenviowall's RendaClad System which was developed for applying a non-structural and seamless rendered rain screen system to a timber-framed substrate. With the use of a silicone render colour (SC75) chosen from an extensive range, it has remained as crisp and clean as the day the building was completed despite its position alongside a busy road. For over 10 years, the building's clean and bright appearance has endured daily pollution and perfectly showcases the longevity of SPSenviowall's RendaClad system and silicone topcoat finish.



SPSenviowall and installers, Square 1, also picked up the Architectural Design Award for its work on Berry Court in Bournemouth. The first time for the company to do so. It features an attractively curved facade achieved due to the use of the SPSenviowall system and skill of the contractor.

The two winning awards are a triumph and a true reflection of the quality of SPSenviowall's external wall insulation systems and render products.

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RCM are delighted to announce that three further products have successfully achieved the prestigious BBA accreditation. Through extensive testing RCM have secured BBA approval for its Supertech Weatherboard, Multipurpose sheathing board and Renderflex render carrier board. The BBA – British Board of Agreement was initially set up back in 1966 by the government of the day. Today the BBA is an independent body, which provides extensive and independent testing of products designed for the construction industry. BBA accreditation supports today's government by being an independent voice within the construction sector. Only products which meet the highest specifications will receive BBA approval as 'fit for purpose', bringing great reassurance and ultimately maintaining quality in the construction industry. RCM offers a wide portfolio of building boards and facades, with its popular A1 non-combustible Y-Wall fibre cement building board having already achieved BBA accreditation a few years ago. The latest BBA certifications pertain to three of RCM's popular products: Multipurpose; Renderflex and Supertech Weatherboard.

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SIMONSWERK exhibiting at ARCHITECT@WORK



Leading hinge manufacturer SIMONSWERK will be exhibiting at ARCHITECT@WORK at the Old Truman Brewery on 29th-30th January 2020. This internationally successful salon concept is exclusively aimed at architects, interior designers and specifiers. SIMONSWERK will be showcasing on Stand No. 47 the latest developments to its comprehensive hinge portfolio and visitors will be able to view the company's full range of hinge applications and also take advantage of one-to-one demonstrations of the SIMONSWERK online advanced PRODUCTSELECTOR information system created specifically for architects, ironmongers, specifiers, and interior designers.

Visitors to the SIMONSWERK stand will be able to view additions to the award winning TECTUS range including the new TECTUS Glass which has been awarded 'Best new product design and innovation 2019' at the Architectural Ironmongery Specification Awards. Organised by the Guild of Architectural Ironmongers and in conjunction with the Royal Institute of British Architects (RIBA).

0121 522 2848 www.simonswerk.co.uk

ARCHITECT@WORK STAND NO 47

ARCHITECT
@WORK
LONDON

Experience insight and innovation at Architect@Work

An impressive list of industry experts from architecture, development and the arts are set to share their knowledge alongside ‘curated innovations’ at the event dedicated to architects, being held in London from 29 - 30 January



Images © Marek Sikora Photography

The two-day trade event that focuses on architectural innovation will take place at the Old Truman Brewery, right in the centre of London's Shoreditch. It includes free admission for trade visitors and complimentary catering throughout, which encourages networking and downtime as well as deal-making opportunities.

The 2020 edition of Architect@Work focuses on ways design and architecture intersect with nature. This theme is

illustrated throughout the talks programme, and is said to be one of the event's most popular features. Timber 'revolutionary' practice Waugh Thistleton Architects is confirmed in the line up, as are architectural practices Invisible Studio, Palladian London, Sarah Wigglesworth Architects and Tate Harmer. There will be talks throughout the show that touch on how natural materials are being brought into our spaces, the importance of natural learning environments, and a debate on the pros and cons of designing for 'countryside vs city.'

The green belt was created to protect against London's sprawl and has been described as "a clear example of the relationship between urbanism and nature." However, some people believe it has become a stranglehold on development. Peter Murray, of New London Architecture, who has played a key role in promoting the green belt concept, will use his talk at Architect@Work as a platform detailing why he is calling for a review of the green belt concept to ensure it is still fit for purpose.

Landscape designer and personality Dan Pearson will be in conversation with journalist Helen Parton as the final talks event. RIBA are also on site and will present their pop-up bookshop, along with the Material Driven exhibition, which has been described as a "must-see for all 'material-o-philes.'" As a design agency and



materials library, Material Driven curates exhibitions by working with both established and emerging materials manufacturers, supporting and promoting their journey from prototype to product.

Visitors should allow plenty of time to explore the wide variety of manufacturers exhibiting their latest wares at the show. Architects, specifiers and interior/landscape designers can explore the latest product innovations from dozens of exhibitors from all over the world. Leading international architectural product suppliers are showing over 200 innovative products and offering the latest innovations in surface solutions, lighting technology and interior and exterior fixtures and fittings. All exhibitors go through a “rigorous selection process,” said the organisers, with an external judging panel overseeing the product selection. The two-day event will try to help visitors to get a deeper understanding of how particular new products can add value within both large and small-scale projects.

Product categories on show at Architect@Work

Carcass/building envelope

Exterior joinery, facade and exterior cladding, insulation, air/water tightness, roof construction, load bearing structures, roof covering, drainage and rainwater systems

Building systems

Fixed lighting, sanitaryware, heating, air conditioning, electricity and controls, plumbing, renewable energy

Interior finishing

Interior layout/design, interior joinery, floor coverings, wall coverings, partition walls and ceilings, paints and adhesives, door fittings

**Architect@Work UK runs on
29 - 30 January at Old Truman
Brewery. Please register at
www.architect-at-work.co.uk
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The Surface Design Show will showcase the best in innovative surface design, manufacturing and development at London's Business Design Centre in February, putting the focus on the on-trend topic 'Close to Home'

Now in its 15th year, the Surface Design Show is claimed by its organisers to be a must-visit for architects, designers and specifiers looking for material inspiration from the UK and around the world. As well as over 180 exhibitors, visitors can also enjoy a packed speaker programme of around 30 presentations from 50 speakers across the purpose-built stages, including the Opening Night Debate and the PechaKucha evening, which will be hosted by Phil Coffey of Coffey Architects. Speakers this year include the following:

- Daniel Campbell, director at Stiff + Trevillion Architects
- Luke Tozer, director at Pitman Tozer Architects
- Joe Morris, founding director of Morris+Company
- Richard Wilson RA, a renowned sculptor known for his "interventions in architectural space"
- Jerry Tate, partner at Tate Harmer
- Faye Davies, principal at Burrell Foley Fischer
- Stella Ioannou, director of Lacuna.

The event's 'Close to Home' theme will look beyond aesthetics and into manufacturers' impact on the environment – from the processes used in mining or manufacture, through to the carbon footprint sustained during sales and distribution. 'Designing with a conscience' will also be examined, from reusing waste materials to looking at what happens at the end of a product's life cycle.

As well as established brands, the Surface Design Show is dedicated to promoting up-



and-coming designers in the materials sector with its New Talent section, curated by creative director at Trendease International, Jennifer Castoldi. Some of the exhibitors include West by Design Limited which features hand painted, artisan wallpaper inspired by the rugged and North Yorkshire countryside; and Studio Gilles Werbrouck, a high-end textile studio creating unique handmade pieces focusing on innovative ways to present knitted textiles in the interior.

Surface Spotlight Live is a section of the show, which is wholly focused on the 'Close to Home' theme. Curated by trend expert Sally Angharad and forecasters Colour Hive, the exhibit will take a look at what



the future holds for materials. Stone Gallery also returns for 2020, accompanied by the Stone Knowledge Hub, supported by the leading industry body Stone Federation GB, which will form a focal point for the event where architects and designers can interact with, and learn more about, specifying natural stone.

Light School is a key component of the show, reflecting the fact that London is the world's capital for lighting design specification. Here, leading manufacturers will demonstrate the relationship between light and surfaces, as well as showcasing the latest architectural lighting products and innovations in lighting technology. Light Talks, a series of sessions supported by the Institution of Lighting Professionals and collated by Rebecca Weir from Lightbout.IQ will underpin this knowledge sharing.

The winners of the Surface Design Awards will also be revealed during the two and half days. Architectural practices including Steven Holl Architects, Mikhail Riches, AECOM, WilkinsonEyre and Chris

Dyson Architects are among those shortlisted for the 2020 awards. These practices were shortlisted as they "exemplify creative use of surface materials and lighting." There are 39 projects across 14 categories in total, from retail and public buildings to commercial projects and housing, including new categories in public realm and affordable housing for 2020. Demonstrating the truly international reach of the awards, now in their sixth year, projects on the shortlist spanned 13 countries from 34 different organisations, with emerging practices represented alongside established firms.

The 2020 judging panel of industry experts is co-chaired by Paul Priestman from PriestmanGoode and Amin Taha from Groupwork. The remaining judges are Nikki Barton, British Airways; Sean Griffiths, Modern Architect; Charles Holland, Charles Holland Architects; Glenn Johnson, Collins Aerospace; Daniel Mota Veiga, KEF / GP Acoustics and Steve Webb, Webb Yates Engineers.

Tickets are free to professional and trade visitors. Register at www surfacedesignshow.com/register

Modified LIGNIA timber on Stand 246



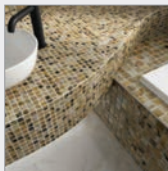
LIGNIA® is 'wood for life', manufactured by the award-winning LIGNIA Wood Company in Barry, Wales. LIGNIA is modified from FSC® plantation softwood into a beautiful, durable timber that matches

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SURFACE DESIGN SHOW STAND NO 246

Mosaics on a roll offer inspiring design



Marmox, synonymous with high-performance tiling preparation, waterproofing and insulating solutions for showers and wet rooms is launching a completely new innovative solution for tiling, Slicedstone Mosaics on a roll. Marmox will feature their latest innovation, Slicedstone Mosaics alongside their extensive portfolio of building board systems, tilebacker

boards, shower formers, and soundboard acoustic insulation boards at the Surface Design Show, stand number 240 at the Business Design Centre, Islington, London from 11-13 February 2020.

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Lathams launch demo zone at SDS2020



James Latham's stand will include a number of innovative surface solutions including HI-MACS®



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However, with this year's 'How Well Do You Know Us' campaign, the leading timber and panel products distributor has been broadening the awareness of its entire product range, from the very latest decors, melamines, laminates and veneers, through to solid surfaces, natural acrylic stone, thermoformable plastics, and more.

And at this year's Surface Design Show, Latham's stand (208) will be taking this one

step further. As well as featuring all the new and EXCLUSIVE product ranges from its supplier partners, it will also be adding two elements to the stand that customers have said they wanted to see; demonstrations and interaction.

Stuart Devoil, Group Head of Marketing, James Latham explained, "In the 'Demo Zone', visitors will be invited to take a seat at a counter in front of a specially constructed 'demo booth' and choose from a selection of product samples displayed in front of them. Once they have chosen, they will pass the sample to our operative behind the counter,

who will then undertake a demo of thermoforming, shaping, sublimation, coating or whatever is suitable for the chosen material. They will then be handed the sample to take away with them, but will also receive a token and an invite to come up to our private showroom (Suite 301) where they can enjoy a free drink and try the process themselves (whilst also having the opportunity to browse our greater range and consult with our specialists).

"In the 'interactive zone', visitors will be encouraged to take a selection of the 250 A4 samples we'll have on display, and form their own 'mood board' by sticking them to a large, 4m x 3m magnetic wall, mixing and matching until they have their perfect colour / texture / décor combo."

"We'll then photograph the mood board and post it on our Instagram, Pinterest and other social channels, for other designers to check out. Is it inspiration, or competition? We'll leave that up to you to decide....."

"All in all, this insight led approach is designed to bring greater interaction with our design focused customers, whilst also displaying the huge and diverse array of products we can provide. We hope to see you there on stand 208!"

The Surface Design Show takes place at the Business Design Centre, 52, Upper Street, Islington, London, N1 0QH between 11th-13th February 2020 – [www.surfacedesignshow.com](http://www surfacedesignshow.com).

0116 257 3415 www.lathamtimber.co.uk



Valchromat

Armourcoat joins Surface Design Show to celebrate the best in innovative surface design

Decorative specialists Armourcoat will be exhibiting at The Surface Design Show in February 2020, a must-visit event for architects, designers and specifiers looking for material inspiration from the UK and around the world, with this year's chosen theme of 'Close to Home.'

Now in its fifteenth year, The Surface Design Show, held at Islington's Business Design Centre, is the trade show to source products, gain new insights and connect with innovative and exciting materials such as Armourcoat's Acoustic Plaster System.

From restaurants, theatres, offices, classrooms, hotel receptions and private residences the use of hard sound reflective surfaces such as glass, wood and stone can cause excessive sound reverberation which leads to unpleasant noise levels. The correct control of sound can create a calmer and more pleasant environment. Designed to optimise the acoustics of interior spaces, Armourcoat Acoustic comprises of a special



mineral wool composite panel that is bonded onto the substrate and finished with a seamless layer, presenting an elegant marble-based plaster finish while allowing sound energy to pass through the surface.

Armourcoat will be recreating the hugely successful 'quiet zone' on their stand at the show to highlight the benefits of their

acoustic system, recently granted the Quiet Mark Award – the international mark of approval from the Noise Abatement Society Charitable Foundation. Through its pioneering acoustic tests, Quiet Mark awards its distinctive Purple Q Mark to products and services that show excellence in low-noise and high-performance.

Quiet Mark launch Acoustics Academy at Surface Design Show this year with an opening Master Class Lunch Event 12.00 – 14.30pm on 13 February featuring world-class architects and designers sharing unique technical insights for pioneering best-practice noise reduction solutions and sound-design including architectural triumph case-studies using Armourcoat Acoustic.

Please visit Armourcoat from 11–13 February, stand 102. For more information and to register for tickets, please visit www.surfacedesignshow.com.

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SURFACE DESIGN SHOW STAND NO 102

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**BUILDING
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Underground overtures

The new concert hall designed by Studio Seilern Architects for a Swiss ski village evolved from humble subterranean origins into a striking composition, opening up the building to the world's leading orchestras

Andermatt is a small ski resort village of around 1200 inhabitants nestled in the Swiss Alps – a former military outpost located at a historically important crossroads of strategic routes across the mountains. However, the village's light had dimmed significantly in recent decades, paling in comparison to other Swiss resorts. After the military pulled out several years ago, the municipality wanted to ensure Andermatt did not decline further, and decided to invest in its future.

The latest example of Andermatt's redevelopment is a world-class concert hall designed by Studio Seilern Architects, which puts the village on the map as a musical as well as holiday destination. It also does so in a surprising and stealthy way that harnessed the practice's proven design ingenuity in cultural sector projects. This is a building mostly submerged in the earth, originally destined to be a subterranean conference room for the town's new Radisson Blu hotel, until practice founder Christina Seilern had the vision to do something very different.

While the project began life as an enclosed building, its evolution into something far more ambitious is characteristic of many schemes the architect has worked on. She tells *ADF*: "It's a bit like story writing, you put in the major points you're trying to achieve, but it really takes you on an adventure."

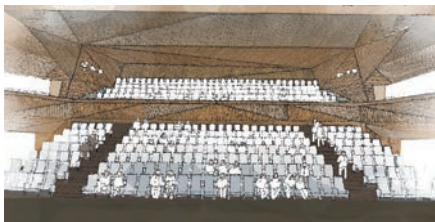
The project's origins were when the Swiss Government approached Egyptian developer Samih Sawiris, who has a reputation for transforming places with scarce infrastructure or built assets into major holiday destinations. He restructured the ski lifts, and built hotels, including the stunning five-star Chedi Andermatt. Sawiris is also a "very passionate music buff," says Seilern, explaining that her involvement began when she met Sawiris while designing two restaurants near the town: "He was talking about wanting to do a concert hall, and didn't realise one of the things we do is performing arts!"

It was not only Sawiris' love for classical music that made him want to pursue a grander vision for the hall – then under construction as a concrete basement next to co-client Radisson's hotel – but also pragmatism. He was aware that a small resort couldn't rely on seasonal sports, says Seilern: "it needs to be an all-rounder." Creating a concert hall of a standard that would attract the world's best orchestras (including perhaps the most famous, the Berlin Philharmonic) would help make Andermatt generate revenue throughout the year as a destination.

Site & design solution

The site is in the centre of the village, however it's in an "unexpected niche," says Seilern, adding, "normally a concert hall is

© Roland Halbe



The 'origami-like' ceiling and wall design was devised by the architects and acousticians to create the best possible sonic results; in so doing it also provides an appealing visual geometry

on the main square." It's in fact located behind the Radisson Blu hotel, but the architect's solution has ensured it presents an intriguing face to the local community.

Studio Seilern lifted and extended the existing steel roof (which would have made the ceiling only around 6.5 metres high) well above grade, increasing the volume from around 2,000 m³ to 5,340 m³. This enabled the building to host a full 75-piece symphony orchestra, and to seat 663 in the auditorium with the help of a concrete 'backpack' added to provide an upper gallery of seating. This addition also required magnanimity from the architect of an adjacent hotel, who had to redesign the scheme to give room for the extension to the concert hall.

With the client having strong ambitions to attract the leading orchestras, the design team toured other concert halls, including the flexible new space by Frank Gehry for pianist Daniel Barenboim's Barenboim-Said Akademie in Berlin. This has a similar size in plan to the Andermatt Concert Hall, but is 12 metres high; Seilern says "it's pretty obvious when you're in there why you need that height."

The big increase in height obviously meant a considerable uplift in cost (the

project ended up costing 16m CHF), and the client needed careful convincing this was in line with their ambitions. Seilern explains how canvassing the views of the musicians who would use the space was essential: "What helped us enormously was not us telling the client, but the musicians, that was what really unlocked the project. They said 'we're not going to play in that little hall.'"

The continuously glazed upper level, peering above the ground, allows people walking past to have a glimpse down into the hall – and three pale, cloud-like acoustic fiberglass sculptures – and even to see an orchestra playing below. The full-height glazing also brings in copious natural light, as well as views of the surrounding mountains, into the hall itself. The architects explained: "The romantic idea was that if it was a winter concert, the audience would be surrounded by a whirlwind of snow, and in the summer surrounded by nature and sunshine."

This "active frontage" turns the building into a "spectacle" externally, says Seilern, and internally marks it out among other concert halls, which tend to be somewhat closed off from their surroundings for acoustic reasons. Here full-height glazing runs continuously around the above-ground

portion, underneath the roof, whose timber-lined overhang is deep enough to create a public plaza beneath. The glass has been specified according to the acoustician's requirements to deal with 50 dB, and actually contributes its reflective properties usefully to the space.

Christina Seilern's very first sketch for the scheme, informed by her knowledge of designing other concert halls, included three suspended acoustic sculptures in the hall. Although this scheme progressed to a single form at one point, it has ended up with something very similar to her intuitive vision – partly due to pragmatic concerns around needing to hold water in a single sculpture for sprinklers. Winches enable the three final forms to move up and down as required for different performances. With a world-class concert hall, Seilern explains, it is not a finished article at completion, "you are constantly tuning it." She adds that the designers are gathering feedback from musicians, and return with the acousticians to tweak design elements.

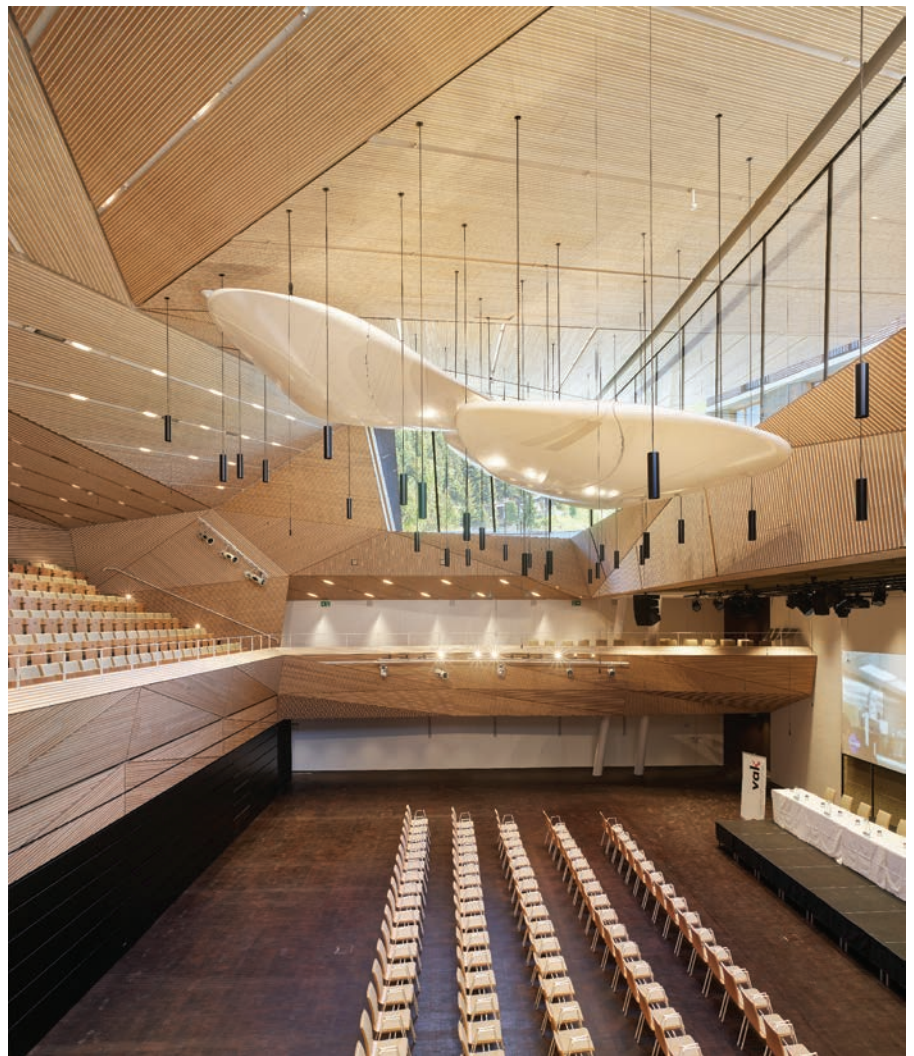
Seilern describes the careful process which led to choosing the final glazing surrounding the sculptures, but which also provides the upper face of the concert hall itself: "We had to test it at different sound frequencies because the acoustician wanted 50 dB at certain sound frequencies but not others, and had to work with the manufacturer to get the right kind of glass."

The solution of a triple-glazed operable facade with a single insulating layer "completely opened up the whole project and liberated it," says the architect. "It made it transparent and light, it didn't feel like a clunky, complex facade." This was a major improvement on the "hugely complicated triple-layer facade" that was initially proposed, says Seilern. This was expensive but also had issues around transparency. An electronically-controlled curtain closes across the glass to enable conferences or evening parties to take place in greater privacy.

Acoustics & staging

The undulating 'origami-like' ceiling and wall design was devised by the architects working closely together with Kahle acoustics to create the best possible sonic results; in so doing it also provides an appealing visual geometry. The strips of white oiled oak, arranged in a pattern of triangular sections, are thinner as the building rises, and subtly change from something closer to white to a yellower shade.

"Everything has been angled for the ideal

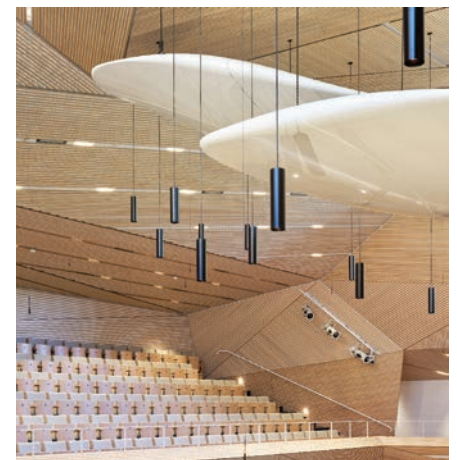


acoustic reflection," says Seilern, adding: "It's like an instrument, you are designing an instrument for the orchestra." The interior has been painstakingly designed to optimise reflection and absorption from orchestra to audience in the right places, and the calculations have resulted in interesting forms such as the inclined balconies. The dynamic interior, with views up to tree-covered mountains, enhances the entire experience to an immersive level, helped by the suspended reflectors designed to achieve the perfect auditory balance.

The ceiling is striped with "technical strips" which discreetly house smoke detectors, lights and around 260 speakers and over 120 microphones – for the PA system. The building is designed for an orchestra to require no audio assistance, but does have an 'electro-acoustic' system to slightly increase reverberation time to optimise acoustics for larger orchestras.

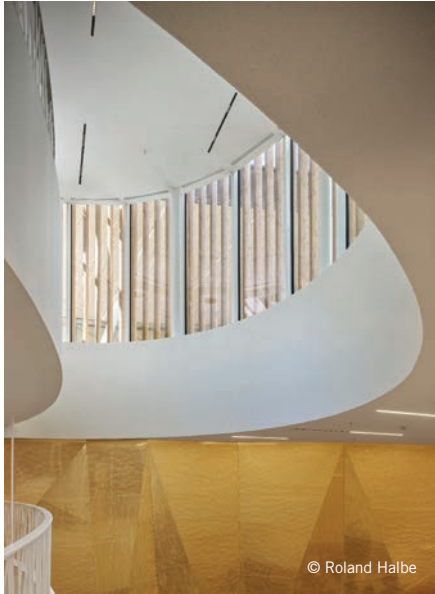
CLOUD FORMATIONS

Closely resembling project architect Christina Seilern's original sketch for the project are three 'cloud-like' fibreglass acoustic sculptures, suspended from wires and finished in a pale colour



“It’s like an instrument, you are designing an instrument for the orchestra”

Christina Seilern, Studio Seilern Architects



© Roland Halbe



© Kanipak Photography

ALPINE INSPIRATION

The foyer continues the ‘origami-like’ forms of the hall, with a gold polycarbonate and metal wall inspired by Alpine glaciers

Due to planning restrictions on the site, only some of the roof could be raised, this meant that the original configuration of the stage area would have been awkwardly constrained. So the designers placed the stage in the centre of the hall instead, giving symmetry to the space as well as acoustic benefits. This is enhanced by the two elegant pairs of angled white steel columns, framing the stage and reappearing at the ground floor entrance to support the roof.

Christina Seilern comments on the stage design: “It creates an acoustic pocket for the orchestra to sit in – to me what was really important was to sit the audience around the orchestra and envelop it.” She says that when the space is this intimate, and if you “wrap people around the orchestra,” everyone “has a good seat,” in terms of both visuals and acoustics. In addition, the central stage position means the foyer is a ‘crossover space’, which can be used by the orchestra during performances.

Behind the stage is a wall of expanded aluminium, designed to provide acoustic reflection in certain areas to help the musicians hear themselves. In others however it is more transparent, providing absorption, so that players of louder instruments don’t overwhelm themselves. Behind this sits air

exhaust ducting – one area where the heavily serviced space discreetly accommodates its copious M&E plant. The hall is flexible – a stepped platform of up to nine rows can disappear under the main balcony to create space for events.

The building is designed to strict Swiss ‘Minergie’ energy efficiency standards, however with it being completely shaded by nearby buildings, solar gain was not a concern. What was a challenge was accommodating the M&E services required without any acoustic interference; this meant a redesign of the original services strategy with bigger ducts and lower velocities. The timber-faced balcony’s deep form not only attenuates, it also hides what Seilern says are “enormous” ducts, which vent conditioned air from openings underneath the seating.

Foyer & entrance

The entrance is a small, round pavilion that was already built as part of the hotel, with a door added by the architects for off-street access. Once inside, visitors descend the “origami well,” as Seilern describes it, down a stair, whose pre-existing concrete core now houses the foyer. A mezzanine gallery was added here to provide added space for bars and circulation, and the golden



© Roland Halbe

polycarbonate and metal wall continues the pattern of triangles, which is repeated throughout the building.

“Because it is underground, we wanted to create something that was very reflective and would bounce the light around; we were fighting this bunker effect,” says Seilern. While some natural light descends via the staircase, the wall, inspired by Alpine glaciers and rock formations, helps the area feel light.

The clients have ensured that the local community feels included, and indeed has a sense of ownership of this prestigious new venue. “They release tickets, and during construction they were taken around the site, and had a video done for the opening – they are incredibly proud, that it’s the first of its kind.” While there have been other classical music festivals in Swiss ski villages, this is the first to have a concert hall, and three festivals are currently planned for Andermatt.

Conclusion

“When a new hall opens, the musicians decide what’s right and what’s not,” says Christina Seilern. Following the showing of the project to musicians to ascertain their views in the project’s initial stages, the architects found they were able to harness their expert ears in persuading both client

and themselves of the need to both expand the space and rigorously detail it so that it performed in the best possible way. As a result, the finished building is proving very popular with its knowledgeable users, who in turn are able to perform at their best for paying audiences.

The building was opened in June last year with a concert by the renowned Berlin Philharmonic Orchestra. Although the ultimate demonstration of the light-filled, acoustically honed hall’s success, it was a nerve-racking test-run for the architects. Seilern says: “It was quite daunting, because they are the critics at the end of the day.” However, she reports that the musicians were “very happy” with the space, and only made some technical comments regarding artificial lighting, “which is fine, we can solve that.”

Since opening, Seilern says musicians who have performed at the hall “are thrilled to see they have a new instrument to play with.” Its intimate nature is also a refreshing change for many performers, used to playing in cavernous 12,000 seat halls. A musician at the opening told the architect they were close enough to see an audience member had been moved to tears – a powerful demonstration of how this building can provide orchestras as well as audiences with a rare experience. ■

Waterfront Church's Sika Sarnafil roof triumphs at 2019 Scottish Roofing Awards

Market-leading single ply roofing manufacturer Sika Sarnafil and leading Glasgow-based contractor Ashton Building Systems (Scotland) Ltd have triumphed at the National Federation of Roofing Contractors (NFRC), Scottish Roofing Contractor of the Year Awards 2019.

The awards, which recognise outstanding standards of workmanship and technical expertise in the roofing industry within Scotland, saw the refurbished roof of Clydebank's striking, geometric Waterfront Parish Church come out on top in the Single Ply Roofing category.

The NFRC announced the winners at an awards luncheon presented by TV broadcaster Carol Smillie on Friday 15 November at The Grand Central Hotel, Glasgow.

Judged by an independent expert panel, Ashton's impressive work on the building's unique multifaceted roof – which having endured over 40 years of Glasgow's inclement



Ashton Building Systems team and Sika Sarnafil sales team with Carol Smillie and the award

weather was starting to fail and allow continual water ingress – secured their place as one of 16 category winners.

Tasked with installing a new waterproofing system, as well as upgrading the thermal value of the roof and improving roof access for safe and easy future maintenance, Ashton opted for a mechanically fixed Sarnafil system. S327-15EL in lead grey was specified due to its ease and speed of installation and the fact that it was able to be fixed onto the existing roof decking.



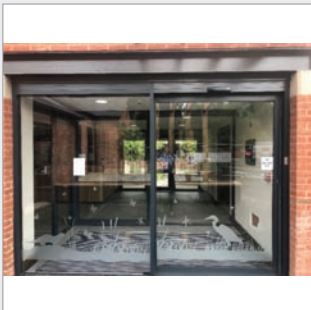
Clydebank's striking Waterfront Parish Church roof, which came out top in the Single Ply Roofing category

Involving high levels of complexity and detailing, the system was installed beautifully across a total of 10 roof areas, resulting in a 15-year system guarantee and an added 5-year diminishing warranty by Sika Sarnafil.

Ashton Building Systems' Managing Director, Garry Easton, comments on the project's award win: "Both we and the client were very happy with the results, and we're now delighted to see those results recognised with such a prestigious award."

01707 394444 gbr.sika.com

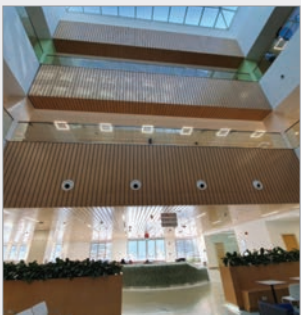
A welcoming entrance to new wildlife centre



Creating a warm welcome to all visitors to the Staffordshire Wildlife Trusts' new Wolseley Centre, two TORMAX automatic single sliding doors work in tandem to create a spacious lobby area that helps ensure a clear through-flow of pedestrians whilst also reducing heat-loss from the building. Enhancing the internal ambience, natural light floods through the glass doors whilst an attractive frosted wildlife manifestation to the external door complements the aesthetics of the facade. Delivering exceptional reliability, the doors are powered by two powerful TORMAX Windrive 2201 operators which can each drive a single door leaf of up to 120kg or a double set of doors weighing up to 100kg per leaf. Tested to well in excess of current industry requirements of one million cycles, Windrive operators can be found installed in demanding locations throughout the world. The Windrive 2201 operators are a cost-effective option, are quick and simple to install and are also easy for National Trust staff to adjust to meet the demands of the day.

sales@tormax.co.uk

Luceco LuxFrame at The Gargash Hospital, Dubai



Luceco has recently supplied over 2,500 LuxFrame luminaires to Gargash Hospital, Dubai in the United Arab Emirates. Gargash Hospital is UAE's first female-owned, multi-specialty, tertiary care hospital with primary focus on women's health and childcare. The facilities comprise of two basement levels, a ground floor and two additional floors offering numerous hospital beds. LuxFrame is a minimalist LED luminaire designed with simplicity in mind for suspended ceiling grid applications, enabling the creation of imaginative lighting with cost effectiveness and energy efficiency in mind. The LED luminaires brought spaces alive with colour and light whilst still creating a relaxing atmosphere supporting patient sleep cycles and enhancing the healing environment. Communal spaces, corridors, patient bedrooms, examination suites, nurse stations and consultation rooms were illuminated with LuxFrame, designed to deliver functional lighting in an architectural yet cost effective manner. Both high and low lumen output LuxFrame luminaires with dimmable options were used with IP rated LuxPanels supplied for Laboratory areas and Mosi, a robust circular utility bulkhead, used in stairwells.

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**BUILDING
PROJECTS**
**QUEEN ELIZABETH'S FOUNDATION FOR DISABLED PEOPLE'S
CARE AND REHABILITATION CENTRE, LEATHERHEAD**

Building independence

A new centre for a disability charity consolidates its existing buildings and combines therapy areas with a homely residential environment, supporting the development of the organisation's specialist care provision. Jack Wooler speaks to architect Edd Rushton

A new Care and Rehabilitation Centre is being constructed for Queen Elizabeth's Foundation for Disabled People (QEF) at the disability charity's Woodlands Road campus near the Surrey town of Leatherhead.

As part of a consolidation of its facilities, the £15m new addition is set to bring a host of benefits and assistive technologies to the charity's repertoire.

Designed by LOM architecture and design, and built by contractor Buxton, the project is intended to provide a specialist care service for people with complex physical disabilities and neuro-rehabilitation for those with an acquired brain injury – and its design contains many considerations to cater to such complex client needs.

At 4,000 m², the centre is the largest ever investment in the charity's 85-year history, and will provide 48 ensuite bedrooms, a fully accessible physiotherapy gym, therapy rooms, and recreation, dining and social spaces.

The masterplan

The new centre is located in a picturesque woodland setting in the green belt, with close connections to Leatherhead. The building, which is currently approaching completion, is configured around a landscaped quad, which, along with the more private resident's garden at the rear,

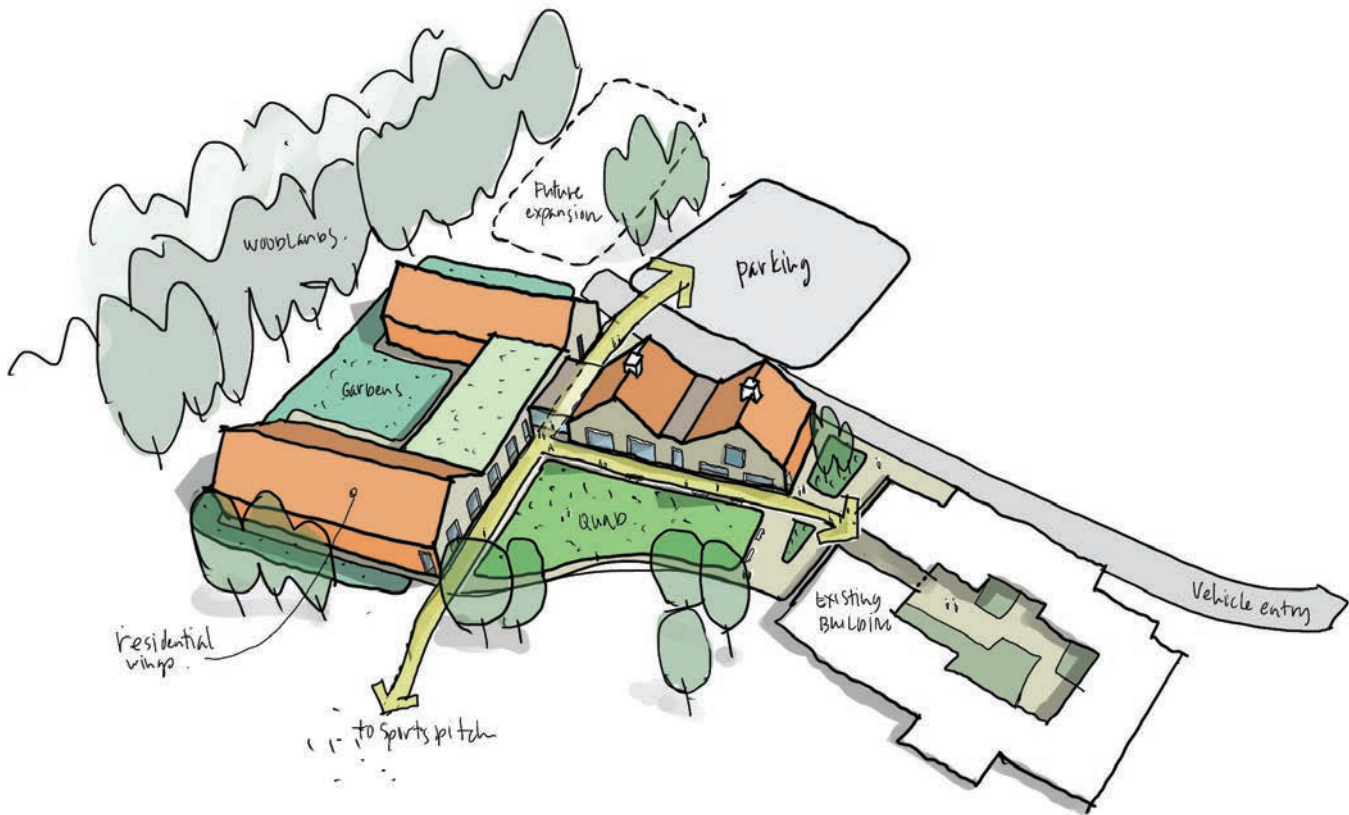
helps the project harmonise with its surrounding landscape.

Before this however, the first step for QEF was to consolidate its existing buildings on the site. The demand for services had been growing substantially, seeing the charity going from supporting around 1,000 people in 2012 to over 5,000 in 2018. LOM, who have a long working relationship with the charity, were commissioned to develop a strategic masterplan that would achieve the consolidation, while simultaneously advancing the site's reach and function.

"It was through this process that we helped the charity to realise the potential of their site," says Edd Rushton, associate at LOM architecture. "The project emerged out of that masterplan and is key to delivering their vision."

The vision was to bring together the charity's multidisciplinary residential care teams under one roof. QEF has been based at the Woodlands Road campus since the 1930s, which to this day hosts Leatherhead Court, its Victorian-built headquarters to the south of the new scheme. Up until the current project however, the site also comprised a number of separate, disparate buildings set over a large area.

"The buildings were from a whole host of different eras, right through from the 50s, 60s, and 70s onwards, and were time



The vision was to bring residential services together into a more “sustainable and focused campus”

served or obsolete,” explains the architect.

The vision was to bring residential services together into a more “sustainable and focused campus,” and create a building that offered people a modern and comfortable environment to rebuild and develop key life skills, increase opportunities, and take greater control of their lives.

This also enabled a tract of land to be released for sale which, combined with the support of private donors and QEF’s fundraising activities, helped to fund the construction project.

Design approach

When Rushton first visited this site, he was struck by “its balance of convenience – in terms of the local amenities, transport links, and proximity to Leatherhead – with the sense that you were in among nature and connected to it.”

He continues: “We really tried to carry that through the design. Complementing and making the most of the natural setting was a key driver in the development, from configuring the building itself all the way through to the materials, textures and the colours employed.”

Now standing two storeys high, the Y-

shaped centre is intended to embody this ideal – being focused around the aforementioned landscaped quad, which allows the building to “foster a connection with the natural environment and improve the wellbeing of the residents.”

Constructed as a steel framed superstructure on concrete pile foundations, the light gauge steel external walls are clad in a material palette of brick, clay tiles and timber cladding – all specified to reflect the local vernacular. Alongside these materials is copious glazing, which achieves further connection to the outside world. This combination of local materials helps the building to “harmonise with its surroundings,” albeit articulated and detailed in a “more contemporary way.”

“The idea was to create an environment that promotes a sense of familiarity among the residents,” Rushton explains, “they are materials which will be known to residents from surrounding buildings.”

He continues: “We selected a light grey blended brick, which contained quite a bit of variation; that’s used on the gable elevations with a red/orange clay tile used on the roofs of the residential wings, providing a warmth and a contrast to the grey brick.” The tone of the latter references



the Victorian brickwork found in the neighbouring headquarters building.

The northern side of the new building – encompassing the two prongs of the Y-shape – contains four residential wings, connected by social areas. Between them, the four wings host 48 ensuite bedrooms, all of which overlook either the grounds or the residents' garden.

The southern section contains more communal areas including catering and dining facilities, a training kitchen for residents, and the fully accessible physiotherapy gym and therapy rooms.

The idea behind the configuration – particularly the arrangement of the south block – was to provide scope for QEF to consider opening up the facilities to support other people with similar conditions," explains Rushton. "This is important because it offers QEF the opportunity to grow while controlling access to the 24/7 residential area.

Bright & airy

Heading inside, the objective was to create "bright and airy" interiors. Influenced by 'biophilic' principles, the architects specified 'natural' colours and textures for materials, bearing practicality in mind.

When it came to the 'bright' goal, the practice worked with consulting engineers to make the best use of natural daylight throughout the building. "The strategy was to optimise opportunities for daylighting, while also using glazing to provide a connection to the surrounding woodland," the architect adds.

The design incorporates full height glazing in a number of areas to achieve this, bringing in high levels of natural light while also "framing key vistas in order to bring the natural world in," says the architect.

As on the exterior, the connection to the natural surroundings was furthered by the interior's material palette, as Rushton explains: "It's about bringing the colours and textures of nature into the building. We used timber internally as a feature material, for frames on the inside of the windows as well as the door frames.

Edd tells *ADF* that the colour palette came in the main from the surrounding woodlands, with shades of greens and golds being prominent: "We used those colours for accenting – in the dining space and the therapy gym, we have acoustic baffles suspended from the ceiling that pick up on that palette."

QEF provide highly specialised and personalised care services, which are all tailored around the needs of the individual



SPRING OPENING

The centre is set to open in spring 2020

Residents' requirements

When moving around these bright interiors, future residents' routes through and around them have been "carefully considered from both a functional and design point of view." In so doing, the architects placed a strong focus on the inherent challenges faced by the building's users.

Conscious of the number of wheelchair users in the building, for instance, LOM designed the circulation routes to 'open out' and become more generous in key areas. As a simple example, where there are four bedroom doors facing out onto a corridor, those areas have been afforded added space.

It was also important to avoid creating a clinical environment; instead the architects put the emphasis on making spaces homely and inviting. "In a building like this, however," Edd qualifies, "there are some quite onerous clinical and technical requirements, so there was a need to strike a careful balance between those two influences – which were often conflicting."

He continues, commending the team's collaborative approach: "I think that was one of the biggest challenges during the project, to find that balance, and we spent quite a lot of time with QEF trying to achieve that together."

This was of course not the only design consideration necessary for such a challenging typology. "The project is quite unique," he says, "because QEF provide such highly specialised and personalised care services, which are all tailored around the needs of the individual, with a real focus on residents' independence. The use of assistive technology in the bedrooms enables each person to have greater control of their personal environment."

As a result, the brief development process and the architect's design response had to be, and was, underpinned by a "people-first philosophy," always with the requirements of its service users in mind.

Furthering this, the design also incorporates assistive technology in order to develop the charity's care services. All of the residents' bedrooms feature intelligent controls for example, which allows users to control their environment using device or voice activated methods.

Rushton explains further: "Underfloor heating, lighting, music and TV can all be controlled by the residents using a device or voice activation – even the activation of automatic bedroom doors and window blinds."

A breath of fresh air

Besides all these specialist design considerations, the building also performs well from an environmental perspective. For one, with the building being designed to achieve a BREEAM Very Good sustainability rating, the design as well as build process were environmentally sensitive: "There was an objective to minimise its carbon footprint, and also reduce running costs – so a number of features have been incorporated to that effect, including roof mounted solar panels, stringent air tightness and insulation standards, with heat loss through the building fabric kept to a minimum."

The design employs a passive approach to building services, as far as this is possible in this context. An example of this is the building's ability to 'breathe' through the incorporation of stack ventilation chimneys at roof level.

These brick forms have been placed above some of the larger spaces such as the dining hall and the physiotherapy gym, and utilise louvres connected to CO₂ sensors. When CO₂ levels rise, these louvres automatically open to purge the space.

"They can also be activated by residents," adds Edd, "it just requires a push of a button and they will open and draw fresh air through these spaces."

Investing in the future

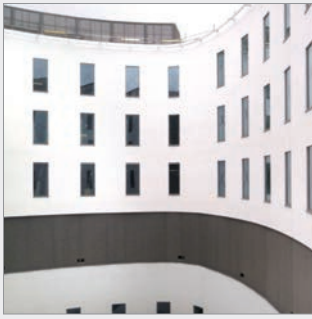
Set to open in Spring 2020, there's already been "a lot of excitement" around the new care and rehabilitation centre, the architect tells ADF, "especially so now that the building is taking shape."

He explains that the residents are looking forward to moving into their "new modern and comfortable building," and are especially interested in the assistive technology employed – overall, says the project's architect, "it's been a very positive reaction."

Looking over the investment as a whole – it being such an unprecedented one for QEF – Edd adds: "Besides all the new functions, the project is giving the charity the opportunity to engage with new supporters, as well as build new relationships with local authorities and other stakeholders."

He concludes: "Ultimately, it's going to transform QEF's campus, and enable them to keep delivering expert neuro rehabilitation and personalised specialist care for many more years to come." ■

Gilberts helps Papworth deliver healthy performance



The new Royal Papworth Hospital is set to achieve the highest energy efficiency, sustainability rating yet awarded to a UK hospital, helped in part through **Gilberts Blackpool**. Gilberts' ability to work closely with the design team and respond quickly to queries through its active pre-order service, enabled a timely solution to the challenges of meeting the key design criteria. As a result, more than 2,300m² of Gilberts' high performance louvres have been incorporated into the external facade, to ensure appropriate weather protection and ventilation of the plant needed to service the building, which is predominantly served by a ground source heat pump. The care criteria meant premium quality air conditioning has been deemed essential. Gilberts WPK75 and WGK75 Series are specifically developed for site assembly, to facilitate integration into modern structural interfaces and changes to the building profile. WPK75 delivers medium-high efficiency, whereas WGK75 provided standard weather screening. The WHK75 is designed for high performance situations, with the capability of being specified to form panels and doors, with or without acoustic attenuation.

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Contour revamps Sovereign range for 2020



Introducing Sovereign: **Contour's** new range of wall and floor mounted heat convectors. Combining sleek design and functional usability, these convectors-with lamella heat exchangers-have been manufactured for office and sales areas, car showrooms, hotels and other public buildings. The Sovereign range is particularly suitable in spaces occupied by members of the public. In such environments, a low surface temperature is required to ensure effective heat output whilst maintaining safety. Due to its minimal water usage, users benefit from simple controllability and rapid heating, enhancing thermal comfort conditions. Reducing thermal inertia when heating, the Sovereign range reacts quickly to ambient temperature fluctuations caused by accidental heat gains. Examples include sunlight, high traffic of people and electrical appliances. Convector heaters with lamella heat exchangers are proving to be a popular product due to their simple and effortless design; an elegant substitute for standard panel radiators. If you'd like to improve the comfort of your workspace or public building – whilst delivering stylish aesthetic appeal – get in touch with one of our experts today.

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Advanced to protect new £49 million Emergency Assessment Centre

Industry-leading MxPro 5 fire panels from global systems leader, Advanced, have been installed at Wexham Park Hospital as part of a major upgrade to the hospital's fire system.

Wexham Park Hospital is a large acute NHS hospital situated near Slough in Berkshire. As well as the main hospital building, the site has a large post graduate building, ambulance station, staff accommodation and a new £49 million, state-of-the-art, four-storey Emergency Assessment Centre.

Responsible for the design, supply, installation, testing and commissioning of the system was Advanced's partner, Static Systems Group, who install Advanced under their brand name Evo2. Static Systems completed the site-wide upgrade with 20 networked, MxPro 5 panels, 18 MxPro 5 repeater panels and 2000 Apollo field devices throughout a number of hospital buildings and departments including Intensive Care,

Sterile Services, Radiology and its new 9,300 sq-metre Emergency Assessment Centre.

Alex Southall, Proposals Manager at Static Systems, said: "We pride ourselves on our skills and expertise in working in challenging, live healthcare settings – it's where we excel. We specified Advanced on this project thanks to the MxPro's second-to-none networking capabilities, flexible multiprotocol platform and user-friendly interface. This enabled Static Systems to deliver a seamless installation with minimal disruption to the everyday workings of the clinical teams."

MxPro 5 is the fire industry's leading multiprotocol fire system solution and was recently certified by FM Approvals to the EN 54 standard. It offers customers a choice of two panel ranges, four detector protocols and a completely open installer network, backed up by free training and support. MxPro panels can be used in single loop, single panel format or easily configured into high speed, multi-loop panels in 200 node networks



covering huge areas. MxPro's legendary ease of installation and configuration and wide peripheral range make it customisable to almost any application.

Phil Calvey, Sales Manager for the South West, said: "As one of the latest NHS hospitals to be protected by Advanced panels it was a pleasure to be able to meet Static Systems' needs on the fire system upgrade at Wexham Park Hospital."

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Altro now a recommended supplier of floors and walls for ProCure22



Altro has been appointed as a recommended supplier of vinyl and resin floors and floor accessories on the Department of Health's ProCure22 Framework for NHS and social care construction schemes in England. Altro floor systems, including Altro Orchestra, Altro Aquarius and Altro Wood Safety, are recommended for use throughout healthcare environments. This follows Altro's appointment in 2018 as a recommended supplier of wall and door systems, including the Altro Whiterock and Altro Fortis systems. The ProCure22 (P22) process is designed to achieve improved value for money and reduce exposure to risk through a simplified capital procurement procedure. With up to 20-year product guarantees, Altro can ensure healthcare environments provide an impervious, hygienic and durable environment, meeting the stringent requirements in critical hygiene areas. With a vast array of colours, including wood-look designs, a warm and welcoming environment can be created to reduce stress and improve patient and staff wellbeing, without compromising on hygiene standards.

01462 489 516 www.altro.co.uk

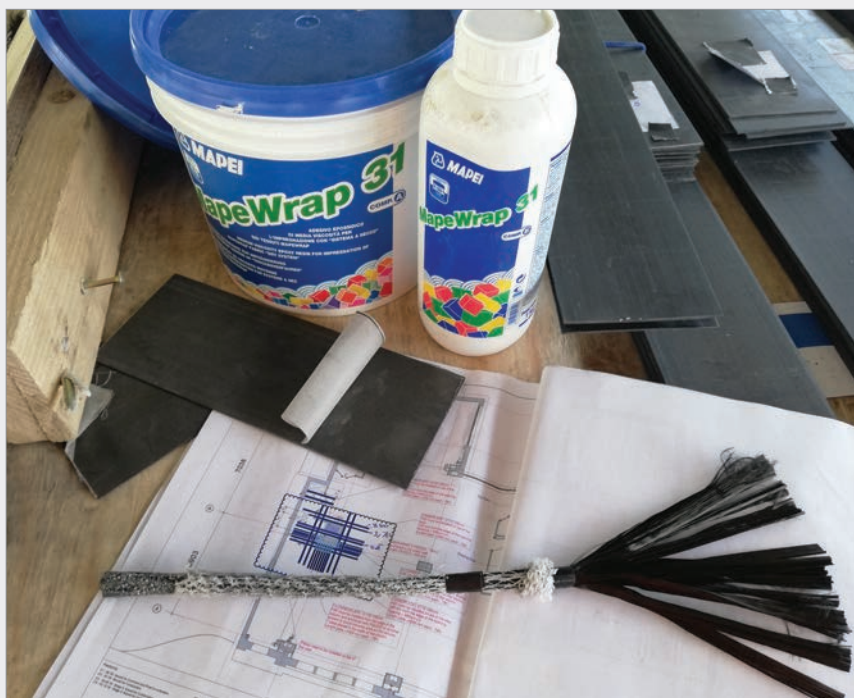
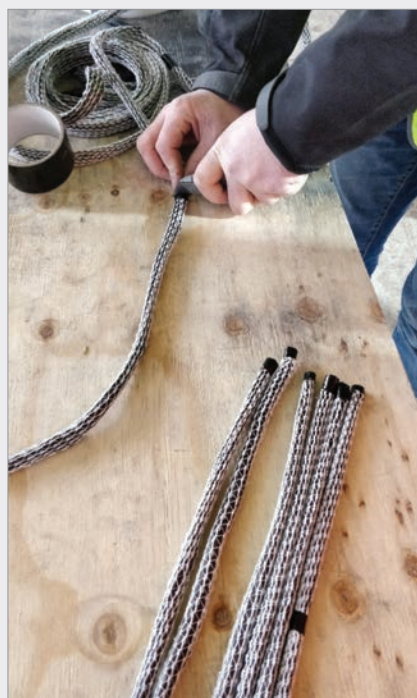
Stroke unit goes to the toilet to help patient recovery



The stroke unit at Blackpool Victoria Hospital has become the first of its kind in the country to go to the toilet to help patient recovery. The specialist department within the Blackpool Teaching Hospitals NHS Foundation Trust has had a Closomat Palma Vita shower (wash & dry) toilet installed. The toilet has integrated douching and drying, triggered when the flush mechanism is operated by pads on the side of the toilet, thus enabling patients to go to the loo without having to rely on nursing staff to help them. Purchased by the Blue Skies Hospital Fund – the fund-raising vehicle for the Trust – the Closomat is largely the result of campaigning by former stroke patient at the hospital Jean Sherrington. Closomat supplied and installed the new toilet and spent time training nursing staff so all understand how the toilet functions. The company is Britain's leading manufacturer of disabled toilet solutions; its Palma Vita is the biggest-selling shower toilet in the country, delivering the most effective washing and drying performance. Unlike alternative shower toilets, the Closomat Palma Vita can be accessorised, initially or retrospectively, to accommodate changing needs.

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Mapei completes FRP structural strengthening at London office space



Mapei products have been used as part of internal renovation works at the Local Government Association's Layden House office situated in Farringdon, London. The 1970's building underwent significant work, whereby Specialist Contractor Gunite (Eastern) Ltd requested a feasible solution using Mapei's composite materials for structural strengthening work.

The project required new openings to be created through the reinforced concrete slab to provide space for services and a new lift. Before cutting the openings, the slabs needed to be strengthened to redistribute the loads around the hole which meant designing for increased flexural loads and, where the holes were close to columns, also designing for punching shear. A feasible solution was proposed by Mapei, which included the use of Mapewrap C Fiocco carbon fibre cord and Carboplate, a pultruded carbon fibre plate pre-impregnated with epoxy-based resin.

The proposed design was accepted by the client as a cost-effective solution. The solution was approved and adopted by the

engineers, and it was implemented by Gunite (Eastern) Ltd after they were instructed to undertake the work by the Main Contractor Gilbert-Ash.

The design, where the service holes were cut near to columns, involved bonding Mapei Carboplate E170 plates to the top of the slab, with the plates on top of the slab connected into the column with the Mapewrap C Fiocco. This increased the ultimate slab deflection and improved the punching shear capacity of the slab.

Where the new lift was to be later installed, the design required a larger section of the slab to be cut out, which involved bonding Carboplate E170 plates around the location of the new lift and would therefore control the distribution of bending moments around the hole.

After the surface preparation of all the areas to receive Mapei Carboplate, holes were drilled into the junction of the column and the slab for the application of Mapewrap C Fiocco. Once the holes were drilled, Mapewrap C Fiocco carbon fibre connectors – previously prepared by cutting the cord to the designed length and impregnating half

the cut length in Mapewrap 31 adhesive and allowing them to dry – were inserted into the holes leaving half the cut length protruding from the hole.

Carboplate E170 was then applied to the prepared concrete slab using Mapewrap Primer 1 and Adesilex PG1 adhesive, as per the design. First, the surface was primed with Mapewrap Primer 1 to ensure a good adhesion to the structural concrete. With the primer still tacky, Adesilex PG1 was applied to the primed substrate, and the cut length of Carboplate E170 was then offered up to the adhesive on the slab and pushed together. A hard rubber roller was then used to apply pressure ensuring that a full bond was achieved between the concrete substrate and the plate, and ensuring that any excess adhesive was removed.

The Mapewrap C Fiocco that was previously left protruding from the hole had the protective sheath removed, and was then bonded onto the Carboplate E170 using Mapewrap 31 adhesive.

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Luxury Lillie Square Development Watertight Thanks To Newton Waterproofing



Leading independent supplier of structural waterproofing systems, Newton Waterproofing, has provided the perfect solution for a huge development in London.

Stonehouse Property Care, a Newton Specialist Basement Contractor, worked alongside Sir Robert McAlpine on the luxury Lillie Square project in Earls Court.

One of the most prestigious developments in the capital, it has transformed a 7.4-acre car park into over 800 multi-million-pound luxury residences and will eventually stretch from Chelsea FC's Stamford Bridge to Kensington Olympia.

The development also contains London's largest private residents' club, the majority of which is below ground, and boasting a lounge, library, private dining room, cinema, gym, spa facilities and a 20-metre swimming pool with jacuzzi.

Phase 1 of the project required robust waterproofing and the formation of a watertight basement to house this luxury residents club.

Newton Waterproofing and Stonehouse were consulted at an early stage to be part of the design team and provide a guaranteed waterproofing solution that would comply with the requirements of both BS 8102:2009 and any third-party warranty providers.

The solution was to design a combined waterproofing solution using three forms of waterproofing to avoid the risk of any future moisture ingress which would damage the high-quality finishes and disrupt club members.

Stonehouse applied the principles of BS 8102:2009 to create a Grade 3 'completely dry' internal environment. This involved an external Type A barrier achieved with the Newton 107F cementitious, liquid-applied waterproofing membrane; an integral water-resistant Type B concrete structure, and a full internal Newton Type C cavity drain membrane system installed throughout the basement area of the clubhouse.

They also installed four Newton Titan-Pro sump chambers containing dual NP400 pumps, as well as Newton High Water Alarms, Inverters and Battery Back-Up protection to create a truly failsafe system.

Stonehouse Property Care's MD Graham Stone commented: "We have worked closely with Newton Waterproofing for almost 20 years, and we wouldn't want to work with any other waterproofing supplier on such a large scale, luxury new build project as Lillie Square.

"The quality of their waterproofing materials combined with their on-site installation and technical support means I can

confidently specify, install and guarantee a fault-free waterproofing solution, and ultimately provide the best result for the client."

This Newton system forms the crucial barrier to any risk of water entry and has an extendable 10 Year Guarantee with independent insurance backing.

For Newton Waterproofing's MD Warren Muschiali, Lillie Square is yet another success story for the company.

"We were thrilled to have been involved in a project as high-profile as Lillie Square and it's yet another project that showcases our waterproofing in a massive new build project," said Warren.

"It's also the perfect example of our elite Specialist Basement Contractors, with Stonehouse providing outstanding design and installation of our high-quality products."

Waterproofing experts for over 170 years, Newton provide the best waterproofing and damp proofing systems for all structures, from new and existing domestic properties to large-scale commercial developments.

For the right waterproofing help and advice with your next project, contact Newton Waterproofing.

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Working together to harness the benefits of innovation

David Hulme of Square 4 Services discusses the value of roof trades and architects collaborating to ensure that roofing systems achieve design innovation and maximum performance potential

Historically, rooftops have served a primary purpose of providing shelter for buildings, but evolutions in building designs have become acutely geared towards sustainability and making better use of space, driving demand for rooftops to fulfil new functions. Architects are under increasing pressure to incorporate multiple elements including solar PV, skylights, HVAC systems and green spaces into roof designs, balancing the requirements of each.

Industry challenges

As the specifications of systems adapt and designs change, there can be a negative impact on other elements, inflating costs and compromising performance. To effectively balance design criteria to achieve optimum performance, there is value in specialist roof trades collaborating with architects on design from the early stages. Specialist roof trades can offer additional support and expertise to help architects create roof designs that might have been thought unachievable. The reality is that the industry is moving at pace, and new developments in materials and technologies are creating increased opportunity for design innovation.

Meeting design criteria with adequate consideration to all systems is complex and requires a lot of time and attention over the course of the design and build. In the commotion of convoluted conversations and design changes, inaccurate decisions can sometimes impede performance.

For example, some roof surfaces are changed during the design and build schedule in the interest of 'value engineering,' without the change being properly communicated to solar PV partners. When installers arrive on site it becomes evident that the roof surface is not



suitable for the fixings that were initially specified and these need to be changed for a different option. In some cases, this can significantly inflate costs and add time to tight build schedules, counteracting the perceived benefits of value engineering.

Balancing the requirements of the roof with the needs of different systems is no easy task. Working with such limited space on projects it is difficult to identify where elements such as solar PV, skylights, SVPs and HVAC systems might be best implemented, and which should be prioritised.

Maximising design potential

It is extremely beneficial for architects to consult specialist roof trades at the very beginning of conversations about rooftop design. By working with strategic partners, architects can be confident that every area of the design is acknowledged thoroughly

The key to designing innovative roof spaces is thoughtfully planning out and creating systems that maximise performance potential



By sharing knowledge, architects can remain ahead of the curve and continue to achieve innovative designs that further capitalise on space and enhance performance substantially

in relation to effectiveness and performance. This can help ease the pressure on architects and inspire confidence in decisions being made. With all parties having a 'seat at the table,' the margin for complication and error is reduced substantially.

The key to designing innovative roof spaces is thoughtfully planning out and creating systems that maximise performance potential. Approaching design holistically can pay dividends, even from the basics of considering the shading on a roof space and how this can impact solar PV or skylighting. Even strategically designing HVAC systems or SVPs to

penetrate the roof in one location can optimise the amount of usable space on a roof dramatically – this is especially beneficial on high-rise buildings where solar PV panels need to be grouped to achieve effective ballast so systems can resist high winds. Then moving towards the consideration of multiple systems, specialist partners can help to produce precise calculations on efficiency and advise the optimum coverage for elements such as skylights versus solar PV panels.

Capitalising on expertise

The benefits of including specialist roof trades in initial design conversations can be remarkable. By sharing knowledge, architects can remain ahead of the curve and continue to achieve innovative designs that further capitalise on space and enhance performance substantially. Roof spaces hold more value than ever before, and by consulting roof trades and working collaboratively on designs, architects can streamline processes and continue to bolster designs that challenge industry norms.

David Hulme is technical director at Square 4 Services

New 'dual-faced' Burwell Gault brick



Imperial Bricks has launched a second brick with its new 'dual-faced' finish: the Weathered Burwell Gault. A hard-textured, handmade brick with some golden buff shades and some greys, it's traditionally seen in Cambridge, Suffolk, and other Southern counties. Imperial's new brick is already in high demand. "While every face of a standard brick can be used to create a brickwork pattern or bond, they usually have the same texture and finish," adds Jason Hughes, Managing Director of Imperial Bricks. "So, if you want to use a smoother or 'facing' brick as well as a more weathered option from the same blend, you have to order two different product lines – a 'standard' and a 'weathered', for example. Our dual-faced bricks give you both options, so builders and developers only have to order one product line, while merchants require less stock. CE marked and fully frost resistant to F2 rating, the new Weathered Burwell Gault is available in traditional 68mm imperial, as a perfect alternative to hard-to-source genuine reclaims, or standard metric sizing for new builds.

01952 750816 www.imperialbricks.co.uk

Dynamic solution to music venue



The Box, located at FarGo Village in Coventry, has undergone several phases of regeneration to create the perfect performing arts venue with Norbord's SterlingOSB Zero at its core. BPN Architects specified SterlingOSB Zero for the project as it would give the venue character while principally

containing noise and offering a strong surface for objects or artwork to be attached to. BPN Architects, the design team and contractor agreed that Norbord's SterlingOSB Zero was a dynamic solution which enabled them to create a special performing arts place.

www.norbord.co.uk

Sto products provide the ideal solution



Photo: Hutton + Crow, Hertfordshire

StoVentec boards with a StoColor metallic paint finish have been used in the design of a unique new building which has revitalized part of London's industrial heritage. Sto supplied the adjustable mounting grid, StoVentec R carrier boards, Stolit K render and a StoColor metallic paint finish for the external soffits of the Coal Drops Yard project in King's Cross. Heatherwick Studio worked closely with Sto, who provided a variety of different samples with varying grain finishes and metallic colours. Sto's knowledge and expertise were central to being able to identify the perfect solution and successfully translate the architect's design into reality.

0141 892 8000 www.sto.co.uk

Galvanizing the sustainable finish

Galvanizing has long been recognised as the most sustainable finishing process available, and with the ever-evolving emergence of new technologies, it is increasingly becoming even more environmentally friendly.

Steel is a vital raw material in many industries across the world, but as a metal, it is highly prone to corrosion. In fact, it's estimated that worldwide, one tonne of steel turns to rust every 90 seconds, which means that for every two tonnes of new steel

produced, one is made simply to rust.

Galvanizing protects steel from corrosion by coating the metal with zinc to prevent it from rusting. Clean steel components are dipped into molten zinc at temperatures of up to 450°C, where a series of zinc-iron alloy layers are formed by a metallurgical reaction between the iron and the zinc. Unlike other finishes, the process of galvanizing results in minimal waste, as any zinc that doesn't instantly form a coating on the metal remains in the galvanizing bath and is subsequently re-used.

A further benefit of galvanizing is its low whole-life cost. The process only needs to be carried out once, and will result in corrosion protection that can last up to 70 years without the need for any time or resource-intensive maintenance or replacement, thus improving economies of scale and savings in energy. Galvanized products, once constructed or installed, can also be removed, re-galvanized and re-used, as well as being easily recycled with steel scrap in the steel production process.

Ongoing Development continues to



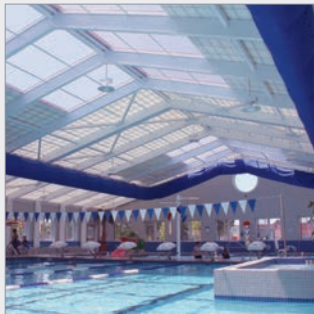
achieve more sustainability. One such method is the re-use of 'waste' heat from furnaces involved in the galvanizing process, via a system of ducting it through heat exchanger units, which provides heat for both degrease and pre-flux tanks. Low flume fluxes have also been developed which ensure that emission limits are achieved with minimum use of energy-consuming abatement equipment.

With its sustainable qualities, long life-span and cost-efficient whole-life savings, hot dip galvanizing can clearly be considered one of the most environmentally-friendly finishing processes available.

01902 601944 www.wedge-galv.co.uk



Retractable Kalwall allows open air swimming



Kalwall® translucent cladding, exclusively available in the UK and Ireland from **Structura UK Ltd**, has been used for a clever retractable roof system at Club One in Maryland, USA. Kalwall and its subsidiary, Structures Unlimited, worked with SEI Architects to engineer a 40 x 25 metre enclosure for Club One's aquatic centre comprising six-lane swimming pool, warm water leisure/therapy pool and a kid's pool with slide and beach entry. The pre-engineered aluminium frame pool enclosure system features a Kalwall translucent panel roof system with two unique openable roof systems. The retractable roof systems help create an atmosphere that allows the facility to be operated as an outdoor pool in spring, summer and autumn and as an indoor pool in winter months. With diffused natural daylight and resistance to solar gain, coupled with significant reduction in ventilation, cooling and dehumidification energy costs, energy-consuming artificial lighting and air-conditioning costs are dramatically reduced. The lightweight system also reduces the need for supporting structures maximising the usable space while offering the highest protection.

www.structura-uk.com/kalwall

Neaco's design input enhances apartments



McCarthy & Stone's Stapleton Court development of retirement apartments has utilised Neaco's design expertise for an extensive specification of glass walk-on balconies. Fraser Mitcalfe, Regional Surveyor at McCarthy & Stone, said: "We have used Neaco for numerous previous developments due the high standard of their product and their reliable service. As a company, they bring more than just product quality to the table – they also bring useful design input and experience from a supplier's perspective. Their Neatdek decking is now specified group-wide due to its non-combustible quality which is now a legal requirement for balconies on residential developments."

sales@neaco.co.uk

Metal Technology's innovative designs



Metal Technology recently delivered its specialist architectural aluminium systems for use at Bertha Park High School in Perth, which is set to become one of the most advanced schools in the UK and beyond due investment into innovative technologies. The significant education project selected Metal Technology's systems in order to meet the security, thermal, and airtight design requirements, as well as the desired ventilation strategy. The state-of-the-art facility perfectly showcases Metal Technology's striking full height System 17 curtain walling facade, as well as a range of other specialist products.

028 9448 7777 www.metaltechnology.com

Sustainable Luxa building shines



Located in the 22@ district of Barcelona, the Luxa building has been designed to reflect the city's modern and vibrant place on the world stage, comprising twin towers embellished with silver and gold WICTEC curtain walling, as well as other systems from the WICONA range. The elevations to both the nine-storey structures are fabricated using WICONA's WICTEC 50EL SG modular facade to create extensive glazed areas, which were specified to provide solar protection through silk screen printing, showing a series of attractive, reflective vertical strips. These enable full visibility as well as improved comfort for those inside.

01924 232323 www.wicona.com/en/uk

Senior delivers PURE® luxury at Grantley Hall



High-performance aluminium fenestration solutions from Senior Architectural Systems have helped breathe new life into the recently refurbished Grantley Hall in North Yorkshire. The prestigious contract saw Senior's aluminium curtain walling, windows and doors fabricated and installed. The slim sightlines offered by Senior's SF52 aluminium curtain wall provided the ideal solution and were perfectly complemented by Senior's high-performance SPW501 commercial doors and patented low U-value PURE® aluminium windows.

www.seniorarchitectural.co.uk

Spectus delivers for new build village



Over 300 Spectus Elite 70 System windows were used in the construction of a new build retirement village in Chorley town centre. Chorley Council commissioned a 65 apartment retirement village to provide those aged 55 and above with an independent living space with access to care and support. The Elite 70 System from Spectus was able to meet this requirement and within the budget. It is a five-chamber system, which increases thermal performance, meaning it is capable of achieving a Window Energy Rating of A+ and U-Values to 0.8W/m²K. The system is Secured by Design accredited.

www.spectus.co.uk

Profile 22 selected for housing development



A development of 82 new build houses to the north of Glasgow benefit from Optima casement windows and French doors from Profile 22. Optima is the market leader in the commercial sector thanks to its ability to meet the most demanding specifications at a cost-effective price point. Optima is the award-winning 70mm system for Profile 22. Its casement windows are available in sculptured and chamfered variations. Aesthetically, Optima casement windows offer improved sightlines and a higher glass-to-frame ratio. The system meets all requirements for thermal efficiency as standard.

www.profile22.co.uk



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Strong enough for a big finish

Kelvin Green of Saint-Gobain Weber explains why render is more than just a decorative feature, and explores the best options for properties built in challenging locations

Over recent years, render has had a resurgence in popularity. Modern renders offer more than just a decorative finish, with features such as through-coloured formulations reducing maintenance, integrated biocide to reduce the natural occurrence of algae on surfaces, and one-coat and pump application to cut time spent on site.

Renders can also be combined with external wall insulation (EWI) providing an aesthetically pleasing finish with the added benefit of reduced fuel bills for homeowners.

The versatile nature of render, combined with the range of colours and finishes available, means that it can be used on most properties, no matter the location, to create a home that stands out.

Monocouche benefits

Developments in coastal regions are at much greater risk of exposure to aggressive weather than inland regions. The most vulnerable areas are within 500 m of the coastline, but high winds, driving rain; wind-blown salt and higher UV exposure can affect buildings as far inland as 5 km.

The application of a monocouche render can help protect and decorate buildings in these highly exposed areas. Monocouche render consists of a single coat, applied in two passes, it is through-coloured, so there is no need for a top coat or painting, saving time and resources compared to a traditional multi-coat system. Suitable for most types of brick, blockwork or concrete substrates, monocouche render offers a low-maintenance and durable finish with algae and UV resistance.

It also allows design flexibility. Monocouche can be used to create a range of finishes including scraped, roughcast or dry dashed, and is also suitable for creating ashlar, key stones and quoin features. A thick render system finished with a roughcast texture or a dry dash aggregate will offer further protection to buildings in severe exposure areas.



Monocouche render is also ideal for properties that need to be completed within a short timeframe. It allows for fast application, meaning shorter programme periods and site costs. Monocouche render can be trowel or pump applied, and finished on the same day, allowing access to other trades more quickly.

High traffic areas

Properties in areas close to busy roads will suffer from the effects of traffic pollution. This can leave a dark residue or cause discolouration on external surfaces.

To stop the pollution penetrating the facade, a protective coating could be used to create an additional barrier. Using a highly hydrophobic coating protects render from water ingress, oil and graffiti, as well as dirt, stains and other atmospheric contaminants.



Adding this type of coating does not affect the original appearance of the render and still allows the substrate to breathe. It simply helps to keep render looking better for longer.

Solid wall refurbishment

Over 30 per cent of UK and Ireland housing stock has been built with solid walls. In traditional construction, these types of walls are built with nine-inch solid brickwork or in non-traditional housing; they are constructed of systems using mainly precast concrete panels.

Solid wall homes can lose as much as 45 per cent of their heat through untreated walls. It is harder to retrospectively improve thermal performance in solid wall properties compared to unfilled cavity walls, but EWI is ideal for this type of house.

EWI can significantly lower heating bills and carbon emissions while extending the life of existing buildings by keeping the old structure warm and stable. It also offers the opportunity to protect, enhance and repair old facades, using a combination of thermal, decorative and structural elements.

Case study: Clevedon, Gloucestershire

A collection of five three-storey homes in the seaside town of Clevedon was built to give homeowners direct views of the sea and Britain's only Grade I listed pier. The development offers a beautiful view, but with this comes its own weather-related challenges.

The development by Cotswold Homes needed an external finish that would stand up against more extreme weather conditions experienced by coastal properties, while fitting in with the existing surroundings.

Mark Pickthall of M P Plastering, Burnham-on-Sea, Bristol, specified the use of weberpral M monocouche render for Cotswold Homes due to its weather and algae-resistant properties.

"The houses were designed with crisp, contemporary lines so the product was selected to complement this minimalist style and help it to blend perfectly with the surrounding landscape," Mark comments. He adds "It is hardwearing and very low maintenance, which is ideal in this area of high exposure close to the sea."

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01908 015760 www.bmigroup.com/uk

Green Roof CPD from Optigreen



Green roof supplier Optigreen, offer a CPD seminar which is perfectly designed for an audience that has had limited involvement with specifying green roofs. The seminar covers areas such as: What is a Green Roof?; Initial Design Considerations; Green Roof

Build-up's and How They Function; Dealing with Pitched Green Roofs; Care and Maintenance. Optigreen can tailor the presentation to your time and needs and the company will issue an individual CPD certificate to each person who attends.

info@optigreen.co.uk



Listed building uses Earthborn silicate

Over 60 years, repairs to Grade II Listed Moreton House in Bideford, north Devon, had caused significant problems. Cement repairs, vinyl paints and a sprayed-on acrylic render coating resulted in damp building up, damaging the plaster and wood. In many places moisture was trapped behind the paint. Some of the external render was replaced with lime but the new owners did not want to use limewash as it needs a lot of coats and regular reapplication. They used Earthborn's Silicate Masonry Paint system which is a durable, easy to use alternative to limewash and conventional masonry paints. It comprises a primer and paint, which form a chemical bond with the underlying mineral substrate to produce a very hard wearing, weather resistant barrier. It offers the same high levels of breathability as limewash but is easier to use and lasts up to 15 years. Useful for any porous mineral surface such as stone, brick, concrete, render or cob, Ecopro Silicate Masonry Paint gives a classic matt finish that will not yellow with time. It even helps prevent algae growth and mould. The paint was used on the stone window sills as well as the walls. Earthborn's silicate masonry paint range has 24 colours. Bespoke colours can be developed through the nationwide network of Earthborn stockists.

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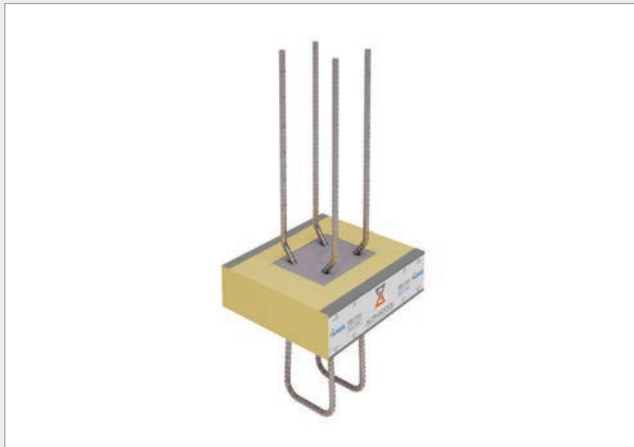
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RAISING THE STANDARDS IN LIGHTWEIGHT ROOFING

New product from Schöck – for reinforced concrete walls



The Alphadock is an innovative new addition to the Schöck range of solutions for minimising thermal bridges in building structures. This new product thermally insulates connections for reinforced concrete walls and columns, providing optimum thermal insulation and maximum load bearing capacity. Thermal bridges in concrete wall and column connections cause significant energy losses, making it difficult to achieve the highest energy standards in new buildings. Additionally they present a risk area for condensation and mould growth that can cause structural damage and occupant health issues. The Schöck Alphadock dramatically reduces the effect of thermal bridges in those areas where previously the problem was very difficult to combat.

The first product installation in the UK is at the landmark Keybridge residential development, in the heart of London's Vauxhall regeneration area. The scheme combines elements of Manhattan architecture with London's prestigious mansion block style, offering 595 new homes across six individual buildings. One of the buildings, Keybridge Lofts, which stands at 37 storeys, is the UK's tallest residential brick tower and there are exposed brick-clad columns which span two floors and tie back into the structure at the very top of the building.

The requirement was to provide a thermally broken base fixing for the columns. Previously Schöck have offered a hybrid solution involving the steel-to-steel modular Isokorb, combined with a specially designed base plate. This formed a thermally broken

base fixing, which was cast into the slab and to which a further Isokorb product was attached. Allowing a steel column to be installed, which was then clad in brickwork. The top of the column being retained and tied-in using standard Isokorb elements to provide a fully thermally broken solution. The method was effective, but not the most efficient in terms of time and cost. Now with the Schöck Alphadock, installation is easy. It is an important new solution as linear thermal bridges at reinforced concrete walls and columns are often neglected – and the resulting energy loss simply compensated for in the thermal calculations.

For further information on the new Alphadock product contact Schöck.

01865 290 890 www.schoeck.co.uk

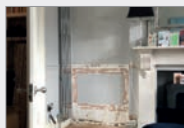


VEKA UK is on same page

Industry-leading PVCu systems supplier **VEKA UK** has launched a brand new specification guide providing manufacturers, installers and specifiers with comprehensive information on all the products within the VEKA UK portfolio. For a brand that is world renowned for both its heritage and its commitment to innovation, the timing of the launch is particularly apt; it coincides with the global VEKA Group's 50th anniversary, and a cutting edge new www.veka.co.uk website. Marketing Director Dawn Stockell explains: "Here at VEKA UK, we know our products are perfect for every project, because they are tested to all expected quality and safety accreditations – but more importantly – they must meet our own exceptionally high standards. "Furthermore, as a customer-centric company, having the 'perfect product' is just one part of the service; the second part is presenting all that product information within the ideal package, and that's exactly what we've done with both our new specification guide and the new VEKA website."

www.veka.co.uk

Victorian house heating improves



The heating efficiency of a 1870s three floor semi-detached house in south east London is set to be dramatically improved as a result of the introduction of Spacetherm WL insulation from the **A Proctor Group**. Spacetherm WL is a high-performance laminate specifically

designed to be fixed to the internal surfaces of existing solid walls without the need for mechanical fixings. Property owner Sean Crawford said: "The reasons that I chose to use Spacetherm WL are, that it is super thin and highly insulating. I won't have to remove marble fireplaces, reinstate radiators, and window surrounds."

01250 872261 www.proctorgroup.com

Kingspan on display at museum



Photo: Christian Richter

Kingspan's Kooltherm and Therma products have been installed as part of the naturally weathered copper facade for the Windermere Jetty – Museum of Boats, Steam and Stories, named design of the year at the 2019 AJ Architecture Awards. The naturally ventilated museum is designed to be highly energy efficient. Kingspan Kooltherm K15 Rainscreen Board was specified for the walls of the main museum building with Kingspan Thermapitch TP10 chosen for its pitched roof. Kingspan Kooltherm K15 Rainscreen Board is the first insulation board for rainscreen cladding applications to achieve LABC Registered Detail status.

01544 387 384 www.kingspaninsulation.co.uk

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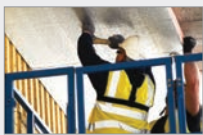
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Study shows soffit savings with Kingspan



New research from quantity surveyors, Rider Levett Bucknall, has shown that the physical properties, specifically the enhanced thermal performance, of Kingspan Kooltherm K110 FM Soffit Board can allow installers to fit an additional

5.25m² of insulation every thirty minutes when compared with the closest competitor, rock mineral fibre. This analysis showed that the thermal conductivity of Kingspan Kooltherm K110 FM Soffit Board (0.018 W/mK) was the lowest on the market, 11 per cent better than the next best material and 89 per cent better than rock mineral fibre.

01544 387 384 www.kingspaninsulation.co.uk/SpeedMatters

Vortice launches new heat recovery unit



Vortice has launched a version of its popular Vort Avel heat recovery unit which is thermal efficient and accredited under the German Passivhaus standard, the Vort Avel 450 D. Suitable for vertical wall installation, it has a high efficiency counter cross flow heat exchanger and automatically activated anti-freeze protection. The front panel gives direct access to the main internal components and allows for easy change of filters. The Vort Avel 450 D has four operational speeds and a 100 per cent mechanical by-pass and its design allows for virtually maintenance free operation.

01283 492949 www.vortice.ltd.uk

Marmox specified for hotel conversion

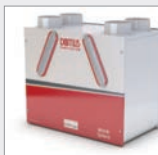


A former hotel in the Polwarth area of Scotland's capital is the subject of a complex conversion and reconfiguration project, where Marmox Thermoblocks have been specified by the project consultants to address the critical floor/wall junction within the new extensions

being constructed. The block-layers have used a total of 117 of the 140mm wide Thermoblock units each one 600mm long and 65mm high. In addition, the merchant stockist involved, St. Andrews Building and Timber also supplied a carton of 10 Marmox MSP 360 Sealant for the purpose of completing the stepped joints.

01634 835290 www.marmox.co.uk

New Domus Ventilation MVHR wall units



Domus Ventilation has launched the HRXE range of high performance Mechanical Ventilation with Heat Recovery (MVHR) units for small to medium size residential properties. MVHR systems combine supply and extract ventilation in one system. They efficiently recover the heat typically lost in waste, stale air and use it to temper the fresh air drawn into the building via a heat exchanger. The filtered, pre-warmed air is distributed to areas of the home such as living rooms and bedrooms, effectively meeting part of the heating load in energy efficient dwellings.

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Indoor air quality: the key to a healthy home

Patrick Calvey from Siegenia looks at the importance of air quality within buildings, and the role ventilation has to play in wellness

Wellbeing and the creation of 'healthy' homes are topics that have recently gained considerable traction within architectural circles, highlighted by the introduction of the WELL Building Standard and Fitwel certifications. Indeed, last summer RIBA published its 'Wellbeing In Interiors' book, further showing what a hot topic this is.

As well as striving for better standards, the increased focus on this topic is also in part a reaction to the poor current state of our buildings. A recently released Healthy Homes Barometer report has placed the UK 21st out of the 28 EU countries in a scale of healthy homes and has estimated that 'unhealthy' homes will cost the EU €55.6bn over the next 40 years. It is therefore clear that standards need to improve.

Emphasis is, quite rightly, placed on measures increasing the flow of natural light, retaining heat and energy and on smart products. However, ventilation is a key area that, although it has been on the radar in other European countries for some decades now, often gets overlooked in the UK. Indeed a Healthy Homes Government White Paper published in 2018 stated that 65 per cent of UK homes suffer from poor indoor air quality.

What's more vital to wellbeing than the air we breathe?

Studies have shown that a family of four produces an average of 14 litres (24 pints) of water vapour each day. And with the introduction of Passivhaus, and modern buildings being increasingly airtight, this brings with it issues such as condensation and mould which can exacerbate, or even cause, health problems such as asthma, stroke and cardiovascular issues. It is therefore vital that any healthy home design includes plans for the consistent, year-round provision of clean fresh air, ideally via mechanical ventilation.



Why mechanical ventilation should be considered

While trickle vents are reliant upon the air pressure differential, mechanical units provide controllable fresh air ventilation and, unlike natural ventilation methods such as the opening of windows, modern mechanical systems can filter out pollen, carbon, coarse and fine dust and NO_x particles from exhaust fumes. Furthermore, the sustained provision of fresh air can help to prevent damage to the building structure and windows caused by damp and mould, thereby decreasing future maintenance costs. They also negate other disadvantages of natural ventilation in terms of security, energy wastage, and noise pollution in busy areas.

Noise pollution is another big topic to consider in plans, as it can have similar detrimental health effects to poor air quality, including heart problems and



If the right system is chosen, mechanical ventilation can provide an extremely positive impact on the health of buildings and their inhabitants

impaired cognitive performance. Not only does mechanical ventilation have the benefit of reducing noise pollution through keeping windows closed, there are also units available that can dampen external noise by up to 50 dB while running extremely quietly at only 20 dB(A). Siegenia, for example, has successfully installed hundreds of thousands of mechanical vents in clean air and noise reduction schemes in proximity to airports and train stations across the UK and Europe, due being designed for high sound absorption performance and low inherent noise.

Centralised ventilation systems are not the only way

When considering ventilation, thoughts often go straight to centralised systems, which can

be daunting in terms of the expense and time-consuming, disruptive installation of ducting required. However, single-room ventilation units are available on the market and can be just as effective, while only requiring sometimes as little as 45 minutes to install and one core drill hole in the wall per unit. Nor need maintenance be a costly job. Some filters need only be cleaned or replaced once a year and units are available that will indicate this to the user.

Single-unit vents can also be paired with smart technology such as air quality sensors or apps. They can therefore be set to automatically kick into action when the air quality drops below a certain level, or be controlled remotely via a mobile device to suit users' needs.

With air quality being so important to health, ventilation clearly ought to be an important piece of the wellness puzzle. If the right system is chosen, mechanical ventilation can provide an extremely positive impact on the health of buildings and their inhabitants and could serve to complement your other wellness measures.

Patrick Calvey is national sales manager at Siegenia-Aubi

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0844 856 0591

Mendip's double sided Woodland stove heats two rooms in one



With open-plan living becoming the norm for many homes, whether it's a spacious new-build, a period property or a character cottage, selecting the perfect stove to heat more than one area can present a challenge. Now Mendip Stoves has the solution with the launch of its new Double Sided Woodland design. As well as offering all the benefits of the standard Woodland stove – large glass viewing window, stainless steel handles – this new, deeper model will provide the perfect centrepiece for an open-plan living area and will complement both classic and contemporary interior design. The Woodland Double Sided stove does not require any venting as it is fitted with a direct external air connection and is DEFRA approved so it can be used in built-up areas and to burn wood in a smoke control zone. Cast iron doors on both sides of the stove can be opened, which enables the fire to be loaded from either side for ease and convenience, whichever room or area you are in at the time. The Woodland Double Sided stove is also the first in Mendip's collection to utilise a catalyser to keep it burning efficiently, which in turn means that it is Ecodesign Ready.

01934 750500 www.mendipstoves.co.uk

Consort Claudgen introduces new heaters



Consort Claudgen have expanded their Electronic seven-day Timer range to include three new low surface temperature fan heaters; two of which are 500W and 750W heaters in the PLSTiE Slimline range and a new 2kW CN2MLSTiE heater. All heaters offer six heating periods per day, seven days a week and

have an optional open/close window detection feature. They are also enhanced with safety monitoring features and one of the latest low energy consumption EC motors. This allows the heaters to operate quietly, whilst still providing the best possible levels of comfort.

01646 692172 www.consortepl.com

New augmented reality app released



Stelrad has released a new App to help those specifying Stelrad radiators to envisage them in a real life setting. The augmented reality App is free and can be downloaded from your Apple and Android App store. Users will also be interested to see that Stelrad has added more of its sector leading radiator products for domestic and commercial buildings – and they are now available to incorporate in designs. Details can be found on the Stelrad website or you can call for further information. You can also follow Stelrad on Twitter @Stelrad or on Facebook at www.facebook.com/StelradLimited.

0844 543 6200 www.stelrad.com

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Only as flexible as the installations it houses



With a growing trend towards flexible working how can building design keep up? AET Flexible Space is a pioneer of underfloor air conditioning (UfAC) solutions that offer complete flexibility. Modular in its design, AET's system is installed at floor level, making it easy to install, maintain, and rearrange. CEO Glan Blake Thomas said: "Corporate organisations are seeking more agile workspaces and our flexible solutions are absolutely ideal to support this trend. AET's UfAC systems offer up to 30 per cent savings in energy costs and around 29 per cent reduction in CO₂ emissions compared to ceiling systems."

01342 310400 www.flexiblespace.com

Pioneering standard of wellness in Ireland



Ventilation from Gilberts Blackpool has helped the Lennox Building become the first in Ireland to achieve WELL v2. Building services specialist Keane Environmental recommended ventilation grilles from Gilberts Blackpool to provide quality fresh air with thermal comfort throughout the three-storey premises. Some 125 no GSFE circular fixed swirl diffusers with 800mm coanda plates have been fitted to exposed ductwork throughout the ground floor reception and restaurant, plus the office spaces and meeting rooms above, totalling 27000 ft².

01253 766911 info@gilbertsblackpool.com

Academy Enhances Corridors with the Help of Yeoman Shield

Macmillan Academy, responsible for the care and education of 1500 11-18-year olds, undertook during the summer of 2019, a large project to further refurbish many corridors within its central building, with the help of Yeoman Shield wall protection products.

As a campus site the Academy's central building is one of the oldest dating from around 1940 and in a bid to meet today's expectations and blend seamlessly with the newer, fresher facilities it was key to find a solution which both enhanced the overall appearance, whilst also ensuring hardwearing durable areas were achieved.

Having provided quality products and services to a previous project for Macmillan Academy, Yeoman Shield were first choice for the provision of wall protection on this latest refurbishment.

Yeoman Shield's directly employed fixing operatives installed wall protection panels along corridors to protect from costly to repair impact damage and marking.

Along department corridors Yeoman Shield digitally printed protection panels with relevant subject names, text and images were portrait fitted at full height giving an informative yet vibrant design.

Where required, 50mm dia. Guardian Handrails in contrasting colours were installed with Stainless Steel handrails being utilised for stairways and slopes. 200 mm protection rails were fitted to white walls, not only for impact protection but to provide interest with a colour contrast.

"The finish of Yeoman Shield products not only provides us with a hardwearing solution but has also been used to visually enhance the corridors. We were excited to install the bespoke printed panels, handrails and protection rails, all of which added to the visual appearance of the finished products." Explained Mrs Jackson, Estates Director at Macmillan Academy.

Yeoman Shield's wide choice of colours also allowed The Academy to pick wall panels to match bespoke signage frames, supplied by The Horizon Group, resulting in stunning wall displays.

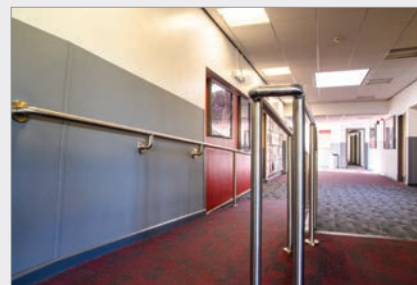
"Yeoman Shield expertly managed all aspects of the project; from initial quotation stage, to installation to the project sign-off, they adapted to fit our work schedule to



ensure all works were completed for the first day of the new term. Again, the dedicated team were super-efficient and met with all our H & S requests.

"Overall an outstanding project which has provided sustainably manageable corridors, which we are sure will stand the test of time." Concludes Mrs Jackson.

0113 279 5854
www.yeomanshield.com



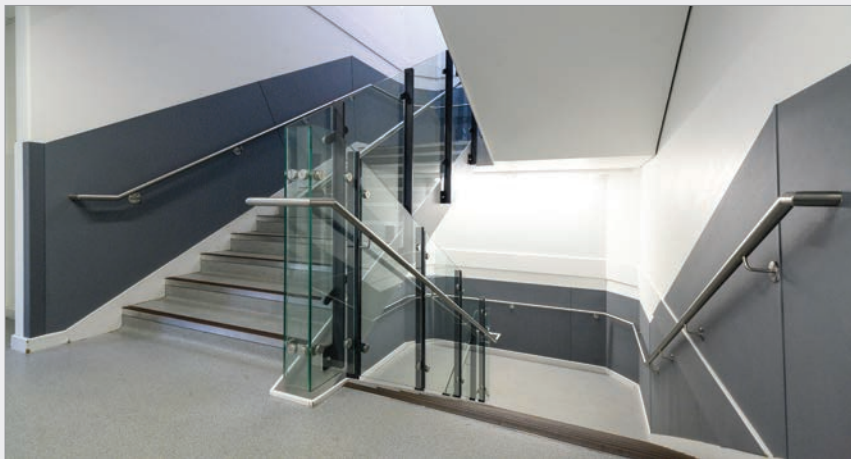
Lifecycle of Academy Walls Extended with Yeoman Shield

SPIE, who manage and maintain schools for a variety of institutions nationwide, engaged with Yeoman Shield when carrying out lifecycle works for a group of Salford Schools.

With a requirement for attractive, clean and damage free environments, for the comfort of students and staff, SPIE contracted Yeoman Shield to install their wall protection panels in areas of the schools which were receiving heavy footfall and impact damage.

Having a wide range of colours to choose from, Yeoman Shield were able to provide the wall protection panels in colour schemes to suit those of each individual school. The 2.0 mm thick FalmouthEx or HessianEx protection panels were fitted mainly along corridors, staircases and in congregation areas, such as sports halls and dining areas, to fend off damage caused by everyday pedestrian traffic and the movement of equipment.

Once installed the wall protection panels



not only look great but will show a big reduction for the need of redecoration and repair to walls over the lifecycle of the building, showing a year on year saving to maintenance costs.

For more information on smart looking, low maintenance protection for walls in busy environments, please visit the website.

0113 279 5854 www.yeomanshield.com

Gx Glass launches printed glass visualiser



Premium glass processor and manufacturer Gx Glass has introduced its new printed glass visualiser. The innovative tool allows interior designers and installers to visualise a range of 'on-trend' pre-set ceramic printed glass designs in a range of applications from splashbacks, to shower screens, to wall cladding. The visualiser has been created to

demonstrate the versatility of Gx Glass' CeramX Digital printing process – the company's digitally printed glass that has the longevity and quality which goes hand in hand with ceramic inks.

www.gxglass.com www.tecglassdigital.com/gxglass

SensoWash® Starck f: Iconic design



Duravit and Philippe Starck present the new generation shower toilet; SensoWash® Starck f Plus and Starck f Lite. Operated via remote control or app, the technology within all components has been reorganized, so all is now housed within the ceramic body creating a stylish minimalist

product. Comfort is guaranteed thanks to finishing touches, such as the motion sensor for automatic cover opening, plus setting options for seat heating, the shower flow and the controllable hot air dryer. The app also enables personal configuration of the shower-toilet.

01908 286680 www.duravit.co.uk

Kaldewei classic undercounter washbasin



The gently flowing interior shape of the round Classic Undercounter Washbasin gives it an elegant and timeless design. Made from Kaldewei's superior steel enamel, in two different sizes, the Classic Undercounter Washbasin comes with overflow fitting, easy-clean finish and sound insulation. Available

in alpine white, sanitary colours and in a selection of exclusive matt shades from Kaldewei's Coordinated Colours Collection (shown here in Catania Grey matt). All Kaldewei bathroom solutions are 100 per cent recyclable and are supplied with a 30-year guarantee.

01480 498 053 www.kaldewei.co.uk

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magrini baby changing units

Magrini **baby changing units** provide a hygienic and safe place for changing your smallest customers.

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Knauf AMF Ceilings touch down at Bristol Airport

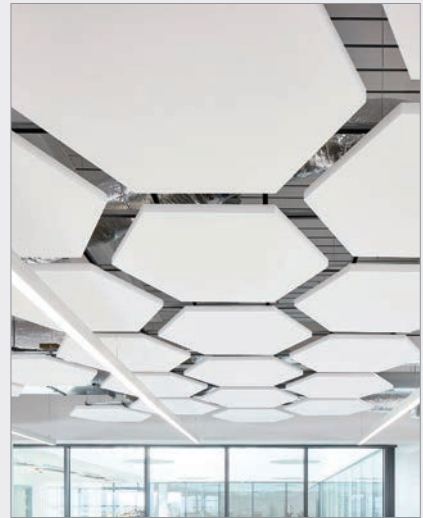
An £8m three-storey, energy efficient, administrative hub at Bristol Airport has just been completed. The impressive state-of-the-art steel framed building has a bespoke Knauf AMF ceiling system fitted throughout to ensure acoustic comfort for the airport's senior management and project teams.



A visually intricate honeycomb effect ceiling required the design and meticulous installation of suspended hexagonal acoustic rafts with precise spacing. This represented a challenge, but one Knauf AMF overcame with the development of a bespoke Donn grid. The grid ensured that each one of the 420 Topiq Sonic Rafts were positioned equidistant to each other.

Commenting on the project, Stride Treglown Associate Architect Toni Riddiford said, "This building facilitates a new agile and collaborative way of working for Bristol Airport. The internal aesthetic is an honest expression of the steel structure and exposed services installation. However, these two factors require careful acoustic consideration. The result is a series of hexagonal suspended rafts that provide acoustic function, as well as making a strong visual statement, defining areas and adding interest to the soffit."

AMF Topiq Sonic are frameless ceiling rafts which offer excellent sound absorption



and humidity resistance. Suspended by simple, discreet cable hangers, the rafts create a weightless, elegant structure. Manufactured in a range of shapes and custom colours, AMF Topiq Sonic rafts offer architects and designers even greater design choice as well as superior performance.

0191 518 8600 www.knaufamf.com

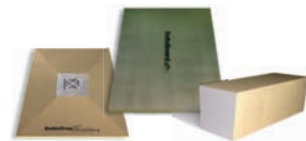


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Luxurious and beautiful bathing environments can be created using DeltaBoard, DeltaTray and Wellness Seating Profiles. PCS Products are designed for use as a lining and overlay system; for walls, floors and ceilings that require the application of natural stone, ceramic and porcelain tiles. The versatile thermal construction products shown, provide an excellent waterproof solution for any tiling project.



PCS manufacture a diverse range of high performance construction products including wall niches, tile backer boards, shower tray formers, flexi panels, tapered panels, tileable seating profiles & more. For more information visit www.pcsboard.com.

What's Under Your Tiles?

All PCS products are available through our national network of distributors and stockists.



01942 820131
www.pcsboard.com
sales@pcsboard.com

Fresh ideas for Interior Doors in 2020

As a new decade commences, professionals everywhere are seeking fresh inspiration for interiors, whether for commercial spaces or residential living. This desire for innovative performance and trend-setting designs is most notable when it comes to interior doors, whose influence upon a room can have a marked effect on the surrounding décor, lifting and invigorating adjacent space. Bringing clarity to this process is Vicaima, who have just launched their 2020 Interior Door Selector. Packed with ideas this brochure is an essential tool for every specifier.

Now an annual and eagerly anticipated event, the 2020 edition of the Vicaima Interior Door Selector has over 100 pages



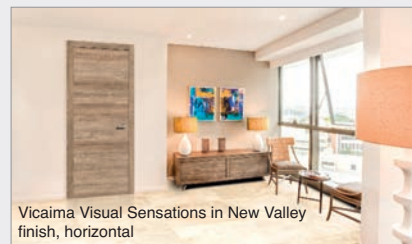
Vicaima 2020 Interior Door Selector

filled with doors and doorsets that suit a multitude of applications, tastes and budgets. Its simple to navigate layout has been designed to make the selection process straightforward, with at a glance guides to form, function and fire, or indeed other desired performance criteria. Every range also shows a simply Price Indicator, allowing easy comparison between potential options for that perfect specification.

New for 2020, Vicaima have introduced some pioneering products that are certain to gain wide appeal. These include: Primed 2 Go, a revolutionary, polymer faced door for painting that requires no surface sanding or priming, saving time and money on site. Deep Textured Finish, creating the authentic touch of an open grain in a matt finish that can be applied to a selection of veneered and stained veneered doors.

An extension to the Visual Sensation foil door range, introducing four new matt finishes and new horizontal grain options in both the Naturdor Stained and Dekordor SD Foil ranges.

Naturally, at Vicaima it's not just about



Vicaima Visual Sensations in New Valley finish, horizontal

great design and trend setting aesthetics. As specialists in performance products, Vicaima set the benchmark for fire certification, coupled with security and acoustic solutions. With a growing market awareness of the needs of providing peace of mind when it comes to fire safety, specifiers gain confidence from a supplier like Vicaima, who achieved 54 minutes during recent MHCLG testing of their 30-minute door assemblies. This coupled with Secure By Design approval and FSC environmental certification, makes Vicaima the obvious choice for demanding locations.

01793 532333 www.vicaima.com

New Transition Profiles: LVT Transitions



Quantum Flooring Solutions' Luxury Vinyl Tile (LVT) transition profiles are suitable for covering and protecting joints between floorcoverings. They can also be used as transitions between two vinyl floorcoverings or two different types of floorcoverings, generally vinyl to carpet or vinyl to vinyl.

The bases for these LVT transitions come in three finishes: gold polished, silver chrome, and anodised satin silver. A 30mm wide LVT strip fits into the base. The profiles can be fitted with secret fixing, so there are no screw holes to worry about. They can also be fitted using Quantum's new Q-Fix cartridge adhesive, with a strong and durable bond. Q-Fix can fully replace mechanical fixing, saving time and money. Quantum Flooring Solutions' LVT transitions can be used with resilient floorcoverings, carpets and carpet tiles to prevent worn and frayed edges from becoming a trip hazard. They are suitable for use to aid safety in all public buildings such as hospitals, schools and hotels.

0161 627 4222 www.quantumprofilesystems.com

Radialised ceiling for landmark restaurant



Photo: Issy Crocker

A distinctive, spiral-shaped restaurant – a new landmark for a fashionable area of London – features a complex, radialised ceiling by Hunter Douglas Architectural. Hunter Douglas Architectural was specified to supply solid wood grill in ash for the restaurant ceiling after impressing designers Nex – with the design consultation support before construction began. The global architectural products company supplied 189m² of FSC-certified and fire-rated panels, 20mm x 80mm slats, with a 100mm gap.

01604 648229 www.hunterdouglas.co.uk

Nature and industry combine



Two stunning Hunter Douglas Architectural ceilings that echo Rotterdam's industrial heritage have been installed in the 29th floor of the Maas Tower, the tallest building in the Benelux region. Hunter Douglas Architectural was specified to supply 310m² of grill wood veneer in poplar. The grills were 10-40-20-45 profile with standard mismatched veneer to recreate as natural effect as possible. The panels were easy to install and can be removed quickly if access to the plenum is required. The dramatic Multipanel BXD ceiling, specified in RAL black, was supplied for the staff lounge and bar area.

01604 648229 www.hunterdouglas.co.uk

Sounding Out 1950's design



An intriguing new Milan styled Italian café has opened on Essex Road, Islington designed by well-known Italian studio Vudafieri-Saverino Partners. The 240 sqm 'Latteria' is inspired by Milanese culture and style with a warm and informal atmosphere in white and red. This is complemented by Trolldtekt wood wool panels on the ceiling painted white to blend in and used to soften the acoustics and reduce background noise. Trolldtekt panels are frequently used in this kind of open plan environment to combat noise generated by the kitchen machinery, staff and customers which is exacerbated by bouncing off the hard surfaces. This is particularly true in this project where the design harks back to the 1950's and features an open-plan kitchen coupled with hard surface lacquers and laminates, polished and satin-finished steel, tiled walls and marble floors. Trolldtekt's acoustic panels absorb both direct and reverberated sound. They help to strike the balance between a lively and welcoming environment and an experience where the venue is uncomfortably loud. This is important because customers' comfort and a willingness to spend time and money is decreased in a noisy environment.

www.trolldtekt.co.uk

Shape & structure

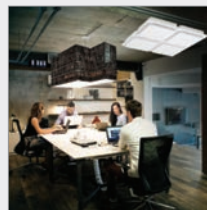


Celebrating the beauty of structure and geometry, the latest collections from CTD Architectural will bring a sense of character and depth to any commercial or residential space. New for autumn 2019, CTD Architectural Tiles has introduced a broad range of designs to its growing portfolio of wall tiles, including the eye-catching Shapes,

Murals Lines and Kenzo (pictured). Ideal for designers, specifiers and developers looking to make a statement, the new ranges combine a multitude of structures, patterns and finishes to deliver surfaces that perform both aesthetically and practically.

0800 021 4835 www.ctdarchitecturaltiles.co.uk

Concord pushes boundaries with Pixier Pod



Concord, Sylvania's architectural lighting brand, has added new iterations of its award-winning Pixier product further expanding this range of design led luminaires. The new Concord Pixier Single Pod Recessed is a high-performance single light pod which excels in corporate, office and education installations. This has been introduced alongside a wall-mounted

version to further the installation opportunities of Pixier, by applying a consistent design theme across multiple fitting applications.

www.sylvania-lighting.com/en-gb

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Stairway to historic results

Milbank Concrete Products describe how a precast concrete stair design provided a practical as well as unique result, for a high-end conversion of an Art Deco cinema

The Denham Film Studios are a collection of 224 conversion and new build homes in Buckinghamshire, including 154 one, two and three-bedroom apartments and 70 four and five-bedroom family townhouses. Features within the new development include a restored historic cinema with a bar and a community hall/fitness space. The new properties are designed around garden squares, landscaped grounds, rill water features, private gardens and protected woodland.

The Studios were opened by film producer Alexander Korda in 1936 and saw the filming of big screen classics like *Brief Encounter*. The main Grade 2 listed building has been converted into 49 apartments, around two new green squares and communal gardens, bordered by three new four-storey apartment buildings providing 105 new homes. Around the eastern side of the site there are avenues of new three- and four-storey terraced housing, and to the northern section two- and three-storey detached townhouses; all overlooking communal landscaping and private gardens.

The retained cinema – which was used to screen movies to Hollywood directors including Stanley Kubrick, Albert ‘Cubby’ Broccoli and Steven Spielberg – was refurbished and turned into a cinema theatre and club for residents; retaining an important link to the history of the site.

Sat within the heart of the apartment complex stands a duo of twisting precast concrete stairs with cast concrete handrails. Finished with LED lighting and Italian marble, they are thought to be the first of their kind in the United Kingdom.

Unique for offsite

The two precast concrete helical staircases that Weston Homes asked us to provide would need to incorporate 150 mm wide by 900 mm high concrete handrails, to tie in with the Art Deco style balustrading to the circulation areas of their flagship development site.

Constructing these flights using traditional insitu pouring methods would



have proved to be challenging in terms of generating the flowing soffit and erecting the necessary formwork – this would have needed to remain in place for at least four weeks after the second flight had been cast. Instead, precast concrete’s quality, affordability, and longevity resulted in a well-designed, manufactured and installed finished product.

A staircase with a built-in handrail of this size has to our knowledge never been made offsite in a factory environment, and was a real technical challenge to not only structurally design but to also tie in with the building’s design. There were also restrictions on transport to the site and considerations on how they would be lifted into position due to the sheer size and weight of each individual flight – a staggering 22 plus tonnes between them. Although immensely challenging, we were completely satisfied with the final result, thanks to the effort put in by the team.

Design, construction and logistics

Kallisto have a long history of providing high-quality precast concrete solutions for



HISTORIC

Now converted into apartments and houses, Denham Film Studios was originally opened in 1936 and saw the filming of big screen classics



Utilising precast concrete constructed in an offsite environment has proven to be a beneficial alternative over traditional insitu methods of casting

the construction industry, and our experience and reputation led to us being chosen by Weston Homes for this unique and exciting renovation project.

The required soffit was able to be produced using our adjustable pallet moulding system, which also acted as the formwork for each storey height flight. Projecting starter bars were cast into the treads of the stair for tying into the precast wall reinforcement. The formwork for the walls was then erected on the flights and extensively propped prior to the concrete pour.

Utilising precast concrete constructed in an offsite environment has proven to be a beneficial alternative over traditional insitu methods of casting when taking overall

end quality, cost-effectiveness, efficiency and safety into consideration.

Our precast components are manufactured offsite in an enclosed casting environment, avoiding delays due to inclement weather conditions. They are developed to be extremely structurally efficient, and supplied to an exact build fit and specification, accelerating the build process. Insitu moulds generally need to be left in place for weeks to allow the concrete to cast.

Precast components allow immediate site and finishing access following installation, providing a safe and solid footing and reducing delays for follow on trades. Components can also be delivered to site as required in the build process ensuring that onsite storage is not an issue when space is at a premium.

In this case, the two four metre diameter staircase flights each weighing over 11 tonnes, were delivered to site on a specialist low loader accompanied by a support vehicle. They were also installed in one day by one of our professional fixing teams, minimising disruption on site and providing an immediate access to the upper levels for other trades.

BLANCO's SUBLINE is simply sublime



BLANCO's SUBLINE sink portfolio has been developed to mix exceptional designs with practicality. Available in a range of models and colours, the SUBLINE sink in SILGRANIT® PuraDur® combines a strong sink surface with creativity in the working space. Homeowners and designers can select a small bowl, such as

BLANCO's SUBLINE 160-U, to act as a side bowl alongside a larger main one, such as the SUBLINE 700-U, while the SILGRANIT® PuraDur® material will ensure a seamless blend between the two.

www.blanco.co.uk

On the level with Norcros Adhesives



Norcros Adhesives is adding a new leveller to its already comprehensive range. Norcros Pro AF Low Prep Self Smoothing Levelling Compound is an ammonia and latex-free, two-part levelling compound. It is suitable for use on most substrates without the need for priming. Norcros Pro AF Leveller has been specially formulated for use over old adhesive residues including bitumen, historically a problematic material to bond to. There is no need to prime or remove firmly bonded residues. This greatly reduces the time usually required for preparation of the substrate to be levelled.

01782 524140 www.norcros-adhesives.com

Gerflor floorings complete leisure centre



The completion of a multi-million pound new leisure centre 'kitted-out' with no less than five high performance Gerflor flooring products, has boosted the leisure offering available to a rural community in the north of the Isle of Axholme, North Lincolnshire.

A simple to maintain surface was an important characteristic for the multi-function fitness studio flooring enabling it to be quickly cleaned. Meeting this brief with ease was Gerflor's Taraflex® Comfort in wood-effect design 'Oak'. Being a multi-use space, a hardwearing surface was needed, but not a clinical feel or look.

01926 622600 www.gerflor.co.uk

Altro Ensemble strikes a chic note



Altro Ensemble™ modular luxury vinyl tiles have helped to create a chic, dynamic and modern space with a new approach to bingo within the new Opera Bingo Club in Barrow-in-Furness. Architects and designers, Bignell Shacklady Ewing, developed the new space and the company's Interior Designer, Emily East,

headed up the project. She said: "We felt the wood effect Altro Ensemble flooring system would enhance that contemporary feel the client wanted to achieve, and give it a chic and 'funky' feel."

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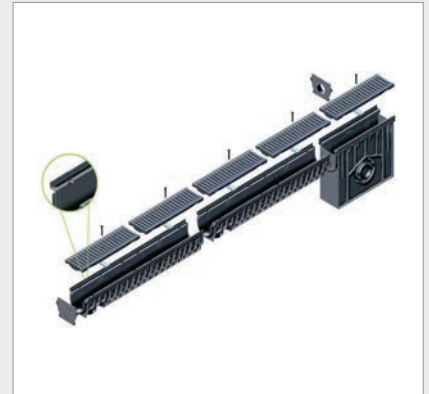
info@kallistostairs.co.uk

Hauraton channels drain Blue Badge scheme parking bays at RHS Wisley

The new facility at the Royal Horticultural Society gardens, Wisley, Surrey has transformed the experience for visitors. The new Welcome Building buildings with its surrounding landscape includes a spacious arrivals hall, cafe, shop, plant centre and a 100 seat restaurant. There

are now three large car/coach parks including Blue Badge scheme easy access bays for visitors in park two.

One hundred metres of Hauraton RECYFIX® PRO 100 channel system, fitted with FIBRETEC® C250, 9mm HEELSAFE slot gratings, was used by groundwork



sub-contractor GPB Construction Ltd to drain the asphalted Blue Badge parking bays for visitors. The channels were installed between the bays and the path leading to the entrance of the new arrivals hall.

01582 501380 www.drainage-projects.co.uk

New Aico product selector arrives



Aico has launched Issue 10 of its popular Product Selector. The new version features the same ring bound format as the previous edition, for ease of use, and all the key features that customers value, with the added enhancement of tabs to help customers find what they are looking for with greater ease.

Aico's extensive product range and ever-growing list of sophisticated, ground-breaking features, are covered in the new Product Guide, along with an easy reference product list including descriptions. The Product Guide also lists Aico's Regional Specification Managers, who are available to offer guidance and support.

www.aico.co.uk/technical-support/guides-publications/#navigation

Resiblock provide Retail Therapy



Resiblock have teamed with JSA Architects in the specification of Resiblock Resiecco at Gateway Retail Centre, Galway for Knocknacarra Phase 2. Resiblock have initially provided sealing solutions for an area

of around 1,500m² for the retail centre car park and footways, which makes up around 50 per cent of total area to be sealed. With the sealer installed, Resiblock Resiecco will provide sand stabilisation which will prevent the failure of the concrete block paving under the weight of both vehicular and pedestrianised traffic.

mail@resiblock.com

Farm invests in a-maize-ing irrigation lagoon



Firestone Building Products has supplied 9,000m² of the company's GeoGard EPDM lining membrane for an irrigation reservoir project at a 1,000 hectare farm just outside the Herefordshire town of Leominster. The

estate invested in an irrigation lagoon as part of a transition from cultivating potato crops to maize. Hereford-based Agri Management Solutions (AMS) helped the farm to achieve planning permission for the development and specified GeoGard EPDM membrane for the project. Director of AMS Peter Gwynne said: "We never compromise on the quality, performance or longevity of the lining system."

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Green-tech supply materials as part of £300m Leeds redevelopment project

Designed to be an important and integral part of Leeds' vibrant Cultural Quarter, sitting side by side with the West Yorkshire Playhouse, the Quarry Hill Campus is one of the first developments to be completed as part of an exciting £300m redevelopment of the area.

As part of the larger development, including Gateway Court and Playhouse Square, approximately 0.4ha of existing green space will be enhanced, and a further 0.2ha created, including 33 new trees, shrub planting and grassed terraces.

Situated next to the west Yorkshire Playhouse, planners were keen to develop a continuous public realm throughout the site. Leading Leeds landscape architects Re-form, used landscaping and planting to soften what was previously a hard-urban space. The use of trees along the front of the building, as well as around the entrance and raised parking area, add welcome greenery, while three large planters break up what would be an



exposed area at the lower level front corner.

The Green-tech team worked with Howard Civil Engineering, providing the unique, patented ArborRaft tree pit system. ArborRaft's shallow profile not only protects the soil from compaction, but also reduces intrusion into the rooting area. Combined with Green-tree's specially formulated ArborRaft soil and subsoil, this will give the trees the very best chance of successful establishment. Terram Root Guard was used



where necessary and the tree pits were finished off with the Fortress grille, allowing paving to be laid seamlessly, practically up to the trees themselves. Irrigation is provided by the tried and tested Mona Relief Grande. The perforated pipe sits around the root ball and, via a capped filler pipe provides a cost effective, easy to use irrigation solution.

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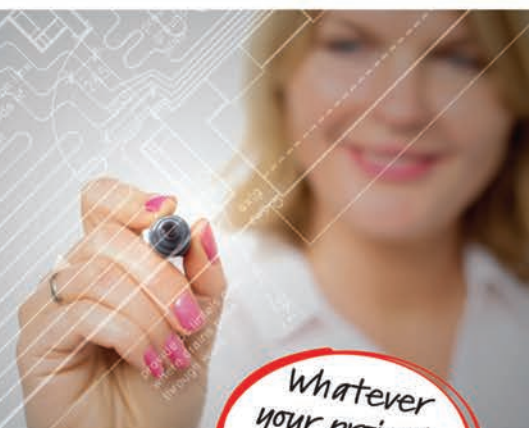




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