

School building



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TVS - helping fast-track education's sporting success

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Welcome to the Summer issue of School Building.

In this issue we bring you two case studies, the £12m CECAMM at the Isle of Wight College, which has been nominated for two awards, and Lillmunkens Förskola pre-school in Munkfors, Sweden, which received the Sustainable Building of the Year award by the Hållbar Byggande Värmland Association.

We take an in-depth look at the use of canopies in schools, where they are incorporated into the design to allow shaded play areas, extra usable outdoor space, and even dining halls, and show some great examples.

The construction and maintenance of school buildings is always in the news, as schools struggle to accommodate increasing pupil numbers, some in a very poor state of repair, and some with classrooms held in temporary buildings, permanently. A survey by the NASUWT, the Teachers' Union, reflects the shocking conditions that some teachers are expected to work under, and the effect this has on them, and their students.

Let us know what you're working on, we'd love to hear from you!

Juliet Davies

School building



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14 Article - Sports & leisure - spaces that aid education

How timber frame buildings are suited to playing an increasing role in the crucial sports and leisure aspects of learning and child development.



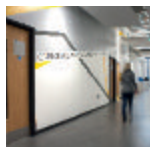
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Does your academy plan for the future and proactively look to safeguard its assets, or simply react to problems as they occur and then deal with the consequences?



26 Article - Take cover...

Canopies are a clever way of making outdoor space useable for much more of the year - because whether it's January or June we're never quite sure what the weather will bring!



38 Case Study - At the double!

A £12m scheme, funded by the Solent Local Enterprise Partnership (LEP), which aims to create a world-class engineering workforce on the Isle of Wight, has been shortlisted for two industry awards.

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When it comes to world class sporting facilities in education, Dorset's Bryanston School ranks amongst the best in the country.

Its former pupils even include a double Olympic champion. So, when it decided to add three new elite sports performance areas to its already extensive facilities, the aim was to ensure the project delivered world class facilities for the next sporting generation.

TVS Sports Flooring was chosen to help keep the school in sport's fast lane.

For more information see page 36





Strong pipeline in UK HE and PBSA markets

Total construction output in the higher education (HE) sector was estimated to be worth around £3.9bn in 2017, and this is forecast to rise as the market for university construction work steadily increases, reports AMA Research in 'Construction in the Higher Education & Student Accommodation Sector Report – UK 2018-2022'.

Despite the increase in tuition fees, student numbers continue to expand in the higher education sector placing great pressure upon university teaching, research and residential infrastructure.

Investment continues to increase among UK universities as competition to attract students intensifies, and there is a buoyant pipeline of ongoing new work at a number of universities as part of major long-term development programmes. While these projects are at varying stages of development they indicate an upward trend in construction work in the HE sector and are expected to translate into a rise in output over the medium term. As such, the HE sector remains an important driver of construction activity and output.

The expansion in the number of students has also led to increased pressure on university residential accommodation. Only around 20% of students are currently catered for in university-run halls and around one third of this accommodation was built before 1979 and in need of significant upgrading.

The shortfall in university owned accommodation continues to be met by commercial providers and the purpose-built student accommodation (PBSA). The PBSA sector has seen significant growth in recent years and commercially run student accommodation now accounts for over 50% of the market by value.

Planning consent granted for mainstream and SEN school

Kent County Council has granted detailed planning consent for Whitfield Aspen School, a unique and popular mainstream primary school which has a large specialist resourced provision for pupils with SEN in Whitfield, Kent.

Pellings, the integrated design, property and construction consultancy, developed the design for the new satellite school forming the expansion of Whitfield Aspen School in Whitfield, the growing residential suburb of Dover.

Due to the major residential development plans for Whitfield, with up to 6,000 homes being built over the next 30 years, Whitfield Aspen School will develop as a two-site school – expanding from 2-form mainstream plus 1-form SEN to 4-form mainstream plus 2-form SEN entry provision to meet the needs of the growing community. The new satellite school, located along Archers Court Road, is being built as part of Section 106 agreement, with a residential developer providing the site and contributing financially to the construction of the school.

The consented new school building comprises two floors of accommodation arranged to create three sides to an enclosed external courtyard. Two classroom blocks, containing mainstream and SEN provision, bookend a central block providing shared and specialist space and the school's administration hub. The central courtyard offers a sheltered informal area for play and learning accessed from mainstream/SEN classrooms. Beyond these shared spaces lies the playing field which is accessible to all.

BCA gains renewables training facility

The UK's first renewable energy training facility at a Further Education college, the Energy Centre at Berkshire College of Agriculture (BCA), Maidenhead, has been officially opened. The facility - pioneered by leading biomass company LC Energy in partnership with BCA and Thames Valley Berkshire Local Enterprise Partnership – is an important first step in addressing the significant skills shortage in the renewable energy sector here in the UK.

The opening of The Energy Centre at BCA will lead to courses which will enable, for the first time, students aged between 16 and 19 to gain accredited technical qualifications in renewable energy, marking a key development in delivering the skills required by employers to help the UK meet its renewable energy targets.

The UK has been allocated a target to increase the proportion of its renewable energy use to 15% by 2020. There is currently a shortfall of 50% in the 12% target for the generation of heat from renewable sources and a shortfall of 18% in the 30% target for the generation of electricity from renewables.

LC Energy firmly believes that extending access to approved and accredited technical education and skills training in renewable energy is key to addressing this, and to reducing the country's reliance on fossil fuels. As such, the company has installed the first training biomass boiler at a UK College of Further Education to facilitate accredited training for the next generation of heating and plumbing engineers.

Aim high!

A multi-disciplinary construction consultancy has helped to develop and construct an exciting new activity centre with one of Britain's tallest climbing towers for an independent school in Norfolk.

Daniel Connal Partnership has overseen the construction of the activity centre for Gresham's School in Holt, Norfolk. The activity centre includes high ropes, low ropes and assault courses, together with a mess room and bunkhouse, with the centrepiece being the 25m high Bourdillon Tower.

Named after Old Greshamian mountaineer, Tom Bourdillon, the climbing tower provides access to the high ropes and a 200m zip wire.

The activity centre project, built by Rope Course Construction Ltd, was initiated by the Trustees of the London Children's Camp, a charity closely connected to Gresham's whose primary function is to provide outward bounds holidays to the disadvantaged.

Located in woodland within the school campus and in North Norfolk's designated Area of Outstanding Natural Beauty AONB, the facility will enable the charity to provide holidays at Gresham's to the disadvantaged as well as opportunities for pupils and visitors to the school to learn outdoor pursuits skills and undertake physical activities.

Legal & General secures student blocks

LGIM Real Assets (Legal & General) have agreed to fund the development of two high-quality student accommodation blocks which have been pre-let to the University of Lincoln. EBW Developments is the developer on the scheme which is a joint venture between Bloc Ltd and Marcus Worthington Properties Ltd.

The acquisition was made on behalf of Legal & General's LPI (Limited Price Inflation) Income Property Fund for a total consideration of £25.6m.

The UK boasts many of the best universities in the world and has one of the world's strongest higher education systems. Attracting international students and academic talent, the higher education sector remains vital to the long-term prosperity of the UK economy. In order to support this strong demand from students, modern purpose-built accommodation is an essential part of a first class education experience.

Let to the University of Lincoln for 21 years, the accommodation will consist of 301 ensuite student rooms arranged across two modern blocks. With completion planned for the autumn of 2019, the property will be the latest addition to the University of Lincoln's student accommodation provision and will be located adjacent to the University campus in the city centre.

Board appointed at architectural practice

Renowned Yorkshire-based chartered architects practice Race Cottam Associates is restructuring its senior management team as part of its long-term development and expansion plans.

The new leadership at Race Cottam Associates, which specialises in the design of schools, higher education and further education projects, will be spearheaded by long-serving director David Speddings, who succeeds company co-founder David Cottam as managing director.

Joining David on the company's new board of directors will be Pauline Lake, who is responsible for business development and specialises in the school sector, and Laurie Cottam, who will take the lead in the company's civic, public sector and commercial projects.

The changes come on the back of a period of sustained growth for the practice, which was established in 1993. Recent projects include the University of York's landmark International Pathway College, design of the multi-million pound Astrea Academy in Sheffield and framework commissions for Leeds Beckett and Sheffield Hallam Universities.

Race Cottam's management restructure came as the company celebrated the anniversary of its 25th year in business in June.

Glenwood School in Essex school wins top property prize

Glenwood School was the winner in the Community Benefit category at the prestigious Royal Institute of Chartered Surveyors (RICS) Awards.

The Special Educational Needs (SEN) school in Benfleet, Essex was recognised for addressing the needs of SEN school places and community facilities in the local area at the RICS East of England Awards, which recognises outstanding developments in the region.

The £15m scheme was commissioned by Essex County Council through its own construction framework utilising leading property, construction and infrastructure consultancy Pick Everard for project and cost management services, with design and build expertise being provided by construction firm Morgan Sindall.

The new state-of-the-art building includes 26 classrooms, a hydrotherapy pool and specialist facilities to help meet pupils' sensory needs, including swing therapy rooms and a trampoline room to help promote body awareness, sequencing, postural control, and organisation of the senses.

Caledonian celebrates success at Offsite Awards

Caledonian is celebrating being Highly Commended at this year's Offsite Awards for its striking new £2.5m sports complex at Ashville College in Harrogate. Shortlisted for Education Project of the Year, Caledonian received the prestigious Award for the innovative turnkey solution it provided.

The Education Project of the Year was the most contested of all 20 categories at this year's awards, with 30 entries and a shortlist of 10 projects. The judges singled out Caledonian for the way it delivered such an individual and strikingly designed building, while still providing all the benefits of offsite construction and exemplary customer service throughout the process.

Ashville College's new sports complex also impressed the judges with the possibilities of Caledonian's SMART offsite construction system and how it was used to create the projecting entrance pod, large open-plan gymnasium, and full height windows to maximise natural light.

Woodhead gets Gold

East Midlands construction company Robert Woodhead Ltd has taken home a Gold award at this year's Considerate Constructors Awards.

Woodhead achieved a fantastic score on its assessment of its work at High Oakham Primary School in Mansfield last year. The site team was awarded 42 out of 50, while carrying out necessary heating replacement works. The project was so highly commended by the CCS assessor, it was put forward for a national award.

The CCS's National Site Awards recognise those building sites registered with the Scheme, which have raised the bar for considerate construction.

During the project at High Oakham, which was delivered for the ARC Partnership and funded by Nottinghamshire County Council through the empa framework, the site team spent time on top of its initial programme of works, building a woodland shelter in the school grounds, bringing a disused area of woodland back into use. Woodhead teamed up with the school, its local sub-contractors and the Woodland Trust to construct a timber sheltered learning area, surrounded by an environmental garden.



Automatically impressive

Providing access into the newly refurbished reception area of a listed building on the University of Edinburgh campus, TORMAX has installed a single and double set of



image © John Need Photography

automatic sliding doors, creating an impressive glass entrance system that is fully compliant with the Equality Act 2010.

The bi-parting set of sliding doors are powered by a TORMAX iMotion 2202 operator which features unique AC motor technology and a state-of-the-art microprocessor control system. As well as being certified for rescue and escape routes, an electro-mechanical locking mechanism ensures a high level of security burglary protection.

Being a relatively large entrance, TORMAX recommended using their iMotion 2302 to power the internal glass sliding door. Despite being housed in a particularly slim and unobtrusive casing that measures just 150mm high, the iMotion 2302 is still capable of automating a single door leaf of up to 180kg.

www.tormax.co.uk

Handle with care

Sustainability was a key priority for the £28m Oastler Building, an award-winning new building belonging to the University of Huddersfield, and the high-efficiency TROX X-CUBE air handling units at the heart of the HVAC system are contributing to the energy efficiency of the building, which has achieved a BREEAM Excellent rating.



The architectural design of the different zones, and the diversity of usages throughout the Oastler Building, create a significant air management challenge. Air handing and ventilation demands vary from dynamic social spaces and lecture rooms, to long, tall corridors and individual study booths for language students requiring sound attenuation.

The X-CUBE's integral variable flow control technology facilitates room-by-room air management, adjusting automatically to requirements. Designed to connect seamlessly to a centralised BMS (via Modbus TCP, Ethernet or BACnet), the X-CUBE's built-in control technology (available as standard) avoids the need for complex or expensive bespoke programming of the BMS.

www.troxuk.co.uk

Multi-mode hybrid ventilation with enhanced thermal efficiency

Ventilation specialist Passivent has introduced the Hybrid Plus2 Aircool® multi-mode ventilation system. Designed to meet the requirements of the forthcoming Building Bulletin 101, "Guidelines on ventilation, thermal comfort and indoor air quality in schools" and the Facilities Output Specification for Priority Schools Programme Phase 2, the Hybrid Plus2 Aircool is suited to where a single-sided ventilation strategy is required in a building.

With a contemporary, streamlined design, the product consists of three main components: the external weather louvre, the through-wall sleeve and the inner mixing unit, making it easy to specify and order, whilst ensuring a complete integrated system is supplied. The Hybrid Plus2 Aircool incorporates three modes of operation to suit varying internal CO₂ and room temperature levels. Mode 1 - mixing mode - is designed for cooler spring, autumn and winter periods when the incoming air is tempered by mixing with warmer internal air before it enters the room thus minimising the risk of cold draughts. Mode 2 - cooling mode - is used in the warmer summer months when the unit responds to the higher temperatures within the room environment, extracts the warm stale air and replaces it with cooler fresh air. This mode ensures that CO₂ and temperature are kept at acceptable levels. Mode 3 - passive mode - can be used when two units are incorporated in the same room. This mode does not use any powered fans and allows single-sided ventilation to the room passively when mixing or cooling are not required.

The system utilises the controllable insulated dampers from Passivent's Aircool range which have been designed for use in external facades, including all forms of wall construction, curtain walling and window profiles. The system is controlled by the Passivent iC8000 controller allowing for up to four individual zones to be managed or it can be integrated within the building's management system. Incorporating a variable speed fan, the unit is energy efficient and quiet but is able to deliver up to 145l/s of ventilation. Weather resistance and security are provided by the external weather louvre, even when the internal insulated louvre is open. One Hybrid Plus2 Aircool can effectively ventilate a room containing up to 16 occupants; adding a second unit will accommodate up to 32 people per room. Made from robust lightweight ABS, the unique three part construction can be mounted below the ceiling and its modular design makes it simple and fast to install. The Hybrid Plus2 Aircool can also be mounted within the ceiling void with the inclusion of additional grilles and ducting.

The ventilator can be used across a range of markets including education and commercial offices with higher internal heat gains. In addition to daytime cooling, it can also be used for night cooling to reduce the risk of overheating.

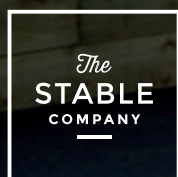
Passivent offers a comprehensive technical design service including assistance with product selection and system design.

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Primary school steps up

Bure Park Primary School in Bicester, Oxfordshire has invested in making its stage performances bigger and better than ever with a 16m² Revostage system from manufacturer Panel Systems.

Revostage features a modular design, combining a patented telescopic riser support and a structural stage platform. The two elements incorporate a unique fixing system to enable the stage to be erected with the use of a simple Allen key. Revostage is light to carry and can be easily transported as it can be reduced to just 15% of its extended size. The system can be erected by just one person in a few minutes.

Ideal for any business, school, college, organisation or premises that regularly hold events, Revostage provides the benefits of strength and durability within a lightweight system which can be stored away in a very small area, when not in use.

www.revostage.co.uk



Taking heating to new heights

Myson are excited and pleased to announce the introduction of three NEW vertical heating solutions. The introduction is set to expand their heating solutions portfolio even further, giving you and your customers even more choice when it comes to specifying heat emitters.

The first NEW addition is the LST Vertical, designed with safety in mind, it comes equipped with a round steel casing which ensures pipework is concealed. It comes with a 10 year warranty for both the emitter and casing, fully complies with NHS Guidance notes 1998 and is protected with anti-bacterial paint.

The NEW LST Vertical is the slimmest and widest panel LST on the UK market with widths ranging between 420mm & 870mm. Joining the rest of the LST family, it creates a total range of 94 stocked sizes, all in all making it the perfect heating solution for hospitals, care homes, schools and other public facing facilities.

In addition, while working on the LST Vertical Myson came to the conclusion that they needed a range of vertical premium panel radiators to complement their existing Plan & Plan Plus range. So, have welcomed the Plan Vertical and Plan Plus Vertical, creating a combined Plan & Plan Plus family range consisting of 230 stocked sizes.

The ideal solution for offices, hotels and contemporary buildings, the sleek flat front panel design of the Plan Vertical offers a modern alternative to the traditional panel radiator, while the Plan Plus Vertical takes modern styling one step further with a decorative front panel.

www.myson.co.uk



On guard!



A popular PVC-u Door Edge Guard range from leading door protection specialists Intastop has been expanded, now offering even greater choice.

The PVC 10mm Door Edge Guard is fitted with intumescent fire and smoke seals which are vandal-resistant yet easy to replace, making all Intastop PVC-u Door Edge Guards ideal for maintaining fire integrity and door safety, an essential part of fire door safety maintenance in keeping people and buildings safe. It can be used on the front and back edges of fire resisting door sets. It has a fire rating of Class 'O', BS476 Parts 6 & 7 and is tested to EN13501-1:2010. Furthermore, it is impact and scratch resistant and contains anti-bacterial properties to help reduce infection in healthcare establishments.

The 10mm PVC-u Door Guard is available in a range of colours and finishes.

www.intastop.com

DANLERS range of popular outdoor security switches just got better

DANLERS Outdoor Security Switch range are neat and compact and now benefit from an IP66 rated polycarbonate enclosure and therefore can be installed across a greater range of challenging environments.

The product range includes:

- IP66 Compact Person Detector with both improved time lag options and upgraded photocell range of 10-1000 lux together with a new photocell inactive feature.
- IP66 Twilight Switch turns lights ON from Dusk to Dawn.
- New IP66 Twilight Switch featuring DANLERS 'Intelligent' Photocell which reduces risk of hunting and over illumination.
- IP66 Dusk Switch with new 'Intelligent photocell' and LED feedback for determining time on duration from 2-16 hrs. Switches lights on for a timed duration and resets itself when enough light is available ensuring lights are not left on unnecessarily.



All products are UK manufactured and covered by DANLERS 5 year warranty.

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Postura+ is also available in a family of specialist seating products for all types of learning spaces:





Nuance Bathroom Panelling

Six times faster than tiling – easy clean solution for washroom upgrades

Tiling takes time – and is expensive. According to Which? Magazine, tiling a 7ft by 7ft small bathroom can take 1-3 days and costs up to £800.

A large 13ft by 7ft room would cost around £1315 to tile and take 3-6 days. Add the cost of the tiles and the noise and disruption involved in having the work done and it becomes an unattractive prospect for schools attempting to refurbish to a tight time schedule.

But what if a sleek, easy to maintain waterproof surface could be installed in as little as four hours for an average bathroom – and even be used to cover old and past their best tiles? In time trials conducted by Bushboard, fitting Nuance bathroom wall panelling was six times faster than ceramic tiling. Nuance bathroom panelling is completely waterproof, comes in a choice of 25 attractive and on trend finishes and can

be applied over old tiles to give a tired bathroom a bright new look without mess and disruption.

The panels are 100 percent waterproof and there is no need for ugly extrusions or trims which means the finished effect is sleek, virtually seam free and a cinch to clean. Ideal for bathrooms, cloakrooms, showers and even wetrooms Nuance panels are ideal for any site where down-time needs to be kept to an absolute minimum. Postformed edges make external corners easy and the choice of panel sizes reduces waste. The really good news is there is no need to hunt down an expert tiler or installer as Bushboard Nuance panels can be fitted by a competent diyer, maintenance teams, a plumber or bathroom fitter.

Maintaining grout and silicone sealer is a major drawback of tiling too. With Nuance panels there's no grout to look after but it must be installed with the company's own BB Complete - a superior adhesive and sealant for a longlasting easy clean finish that is guaranteed for a full 15 years.

Bushboard offers a comprehensive introduction pack that includes samples, mood boards and technical data. There is an accredited CPD and the possibility of sample-room installations for contracts that meet a minimum criteria. To receive a pack, email rchecketts@bushboard.co.uk or lsumpter@bushboard.co.uk.

www.bushboard.co.uk

Washroom Washroom unlocks potential with smartLOK

Washroom Washroom has added an innovative new cubicle lock to its washroom accessories collection and it is now available to see at the new Saneux showroom in Clerkenwell.

smartLOK combines high quality mechanics and electronics to enable the user to lock and unlock the cubicle door just with one touch. Simply pressing the handle activates the contact plate to lock or unlock the door smoothly.



With a number of different handle choices, all ergonomically designed with the user in mind, smartLOK adds an extra dimension to any washroom or changing area. The stylish lock is designed to look like a door handle from the

outside rather than a traditional bolt indicator, opening up new possibilities for architects and designers alike.

The new lock can be installed quickly in the same way as a standard lock. As an added safety feature, the lock set has been designed in such a way that the lock plate will break off cleanly if the door has to be forced open in an emergency situation. The lock plate section can then be easily replaced and clicked on to the cubicle door, causing minimal fuss, cost and downtime.

www.washroom.co.uk

Hygienic solution to toilet guidelines

Guidelines on school toilet provision have been updated for new build and refurbishment/conversion projects. In addition to changes to the specifications, the revised recommendations say it is better to have fewer, bigger, and better rooms than an over-provision of small compromises.

Closomat, Britain's leading provider of accessible toileting in and out of the home, delivers a complete package - design advice, supply install, and servicing/maintenance - to help commissioners and providers meet the new guidelines, with best value.



"School toilets really matter," says Robin Tuffley, Closomat marketing manager. "New research shows teenagers with continence issues are at risk of underachieving at school. And what about hygiene, not just for the child, but the member of staff helping them? What about privacy? Independence? Learning personal care skills?"

The new British Standard notes that replacement of a conventional WC with a wash and dry toilet, certainly in a Changing Places, enhances dignity and independence for the user.

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Preschool has winning design

Lillmunkens Förskola pre-school in Munkfors has made the grade for award winning sustainable design, in a beautiful and child-friendly environment.

The Public Health Authority in Sweden highlights that the choice of building materials can affect allergies and respiratory diseases, such as asthma. Knowing the materials in our environment can impact our health, it is important to consider the indoor and outdoor factors children are exposed to when developing schools.

Children are more vulnerable than adults. High metabolism, respiratory rate and skin permeability means children are susceptible to a higher intake of environmental contaminants as their organs are still developing.

During the construction of Lillmunkens Förskola preschool in Munkfors, great importance was given to the build's environmental and sustainability credentials. Environmentally friendly and non-toxic materials were used for both the building, including the exterior cladding, and the permanent furnishings and furniture.

VIVIX® by Formica Group was specified by KLARA Architects and Sweco Architects as part of the facade to complement the wood panelling. The panels were also used in the areas subject to high wear and tear such as the entrances, stairs, and storage spaces, with the durability of the panels being ideal for environments subject to high traffic footfall.

Used in the design of the ventilated façade, VIVIX® panels help optimise the school's heat and energy efficiency, and in doing so facilitates the work of green building technology alongside the products registered in the Swedish environmental databases;



SundaHus, Byggvarubedomningen, BASTA, and Svanen Husproduktsportal.

Lillmunkens Förskola was named after a nomination contest amongst Munkfors' residents. The two-storey building is located in the Munkerud area, with the building and its five departments having a gross area of approximately 1200m², and it can accommodate up to 100 children. In addition

to the departments, the pre-school includes communal areas such as a music room, creative studio, and staff rooms.

After its completion in 2017, Lillmunkens Förskola received the Sustainable Building of the Year award by the Hållbar Byggande Värmland Association.

All images © Sebastian Grönkvist



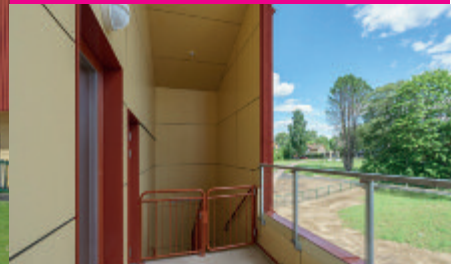
FACT FILE:

Location: Munkerud, Munkfors

Architect: KLARA Architects and Sweco Architects in the design phase

Entrepreneur: Noctor Bygg

Builder: Munkfors Municipality, Värmland





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Sports & leisure - *spaces that aid education*



A timber teaching, community & sports changing facility at Keelman's Way School, Hebburn.

We mentioned in our last article on modular classrooms that the school environment can have more impact on learning outcomes than you might think. With this in mind, we're looking at how timber frame buildings are suited to playing an increasing role in the crucial sports and leisure aspects of learning and child development.

How sports foster life skills

It is now widely acknowledged that sports play a key role in the development of life skills for pupils of all ages. From discipline and focus, through to developing an understanding and use of teamwork, as well as playing to strengths and so on, pupils can get much more from their sports lessons than the physical exertion itself - as incredibly valuable as that is.

"Besides just being fun, sports can help you perform better in school, relax more and worry less, deal with setbacks, work better with others and increase your energy - all of which helps you balance school and everything else going on in your life."

(www.rochester.edu/team/benefits-of-sports-to-students/)

So, as well as skills, the sports themselves present an opportunity for children to experience some of the physiological benefits of stepping outside the traditional classroom environment. This is where timber gets another gold star as a building material of choice.

Timber buildings for sports....

We've explored - and experienced through

demand - that many teachers find timber, modular buildings provide something different from the traditional brick-and-mortar classroom. Timber is a material at the forefront of evidence-led design, and its use has been scientifically shown to present a series of physiological benefits to users, including reduced blood pressure, heart rate and stress levels; wooden wall panels 'had an emotional and natural impression upon humans'; all exceptionally complementary alongside the benefits of sports.

Furthermore, timber is hygroscopic - improving indoor air quality by moderating humidity, and it's no secret that timber's natural qualities make it ideal for helping to keep its inhabitants cool - another plus point for sports facilities. Despite already being a natural insulator, further artificial insulation can assist wood's low thermal heat transfer, keeping everyone cooler in the summer and warmer in the winter.

Mixed-use timber buildings for education

What additional needs can timber buildings meet for sports education? Beyond the benefits of thermal performance, adding to school facilities in a cost-effective manner is a crucial consideration. We've worked with

multiple stakeholders on delivering builds that meet strict budgetary constraints, while ensuring no compromise on quality or design and functionality.

Timber is a fast, budget-friendly build option for everything from changing facilities and pavilions, through to sports halls, equipment stores, or even builds that require the flexibility to combine more traditional teaching set-ups, with any of the above.

We've worked with schools on accessible changing with access to playing fields, as well as specialist sports clubs. These facilities offer a club space, as well as a revenue stream as a community space. This is something which also poses an opportunity to certain schools and Higher Education facilities; broader use.

In seeking to create these kind of modular spaces, schools can further enhance their offering to, and position within their local communities. By having practical, well-designed spaces that can be hired by private sports clubs, these facilities themselves can be used to host alternative events; a win-win for the schools and the external organisations themselves.

www.thestablecompany.com



A timber clubhouse facility at Mareham Bowls Club.

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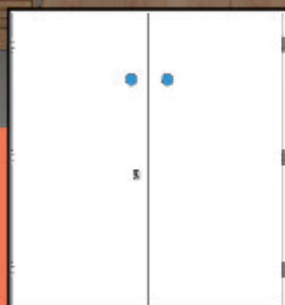


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Big steps on safety & security

Bigger is better, especially when it comes to security and safety on emergency exit doors. Now, architects and specifiers can have PAS 24 accredited double doors up to 2.6m wide and 3m high, thanks to Jack Aluminium's latest testing.

"This clever hardware removes the need for a managed security solution," explained Jeff Pearson, Sales and Marketing Director at Jack Aluminium. "The doors remain secure 24/7, without the addition of bolts. In emergency situations, occupants can hit the slave door leaf or the master door leaf and escape quickly."

The PAS 24 test was done on a TD68 Thermal Door set 3m high and 2.6m wide in partnership with GU Automatic Doors in Stratford.

The new hardware is available now, and combined with the cleverly designed TD68 Thermal Door offers a completely robust, thermally efficient, safe and secure, non-managed solution for sites including educational buildings and medical facilities.

www.jackaluminium.co.uk



Research links insulation to natural light levels



A new whitepaper from Kingspan Insulation has revealed that insulation specification can have a significant impact on daylight levels within a building. The Daylighting White Paper features research from respected independent consultants, Peutz BV, assessing differences in the average daylighting factor (ADF) of a room when Kingspan Kooltherm K15 Rainscreen Board is used within the external façade, compared with mineral fibre insulation.

Calculations were completed for build-ups achieving three U-values, and incorporating four different window layouts. The enhanced thermal performance of Kingspan Kooltherm K15 Rainscreen Board allowed each U-value to be achieved with reduced external wall and reveal depths.

Kingspan Kooltherm K15 Rainscreen Board can provide a thin solution which allows buildings to meet or exceed the minimum daylighting requirements in BS 8206-2: 2008 more efficiently than mineral fibre insulation; this may allow buildings to attain BREEAM visual comfort daylighting credits with relative ease.

www.kingspaninsulation.co.uk

New Schueco seminars will address compliance issues

Leading sustainable building envelope specialist Schueco UK will be running a series of free seminars designed to address compliance issues in the aluminium façades, windows and doors market in the UK.

Schueco UK believes that following the publication of the final report of the Hackitt Review, compliance is a topic that every responsible company needs to address urgently and expects that demand for these seminars will be very high.

Aimed at architects, consultants and main contractors, the seminars will take place on a quarterly basis in Schueco UK's new London office and showroom, and individual seminars can also be arranged at the offices of specifiers or contractors.

The seminars, which will be relaxed and informal with refreshments, will follow a recognised CPD format. A full programme will be released shortly, but candidate topics include acoustics, building movement and structures.

The first seminar is scheduled for September.

www.schueco.co.uk



Assured fire protection for timber framed glazing

Designing, specifying and installing fire rated timber framed butt-jointed glazing is now easier with the assurance of a fully traceable supply chain, with the launch of SYSTEMGLAS®



Ligna by Promat UK, one of the country's leading manufacturers of fire, thermal and acoustic solutions.

Joining the existing 'frameless', paintable, metal-clad and steel frame options to complete the SYSTEMGLAS® range, Ligna gives designers the ideal balance of assured fire protection and maximum light transmission in all kinds of timber framed glazed partitions and screens. It has been tested (CERTIFIRE CF5452) to provide integrity and insulation (EI) fire protection from 30 minutes up to 60 minutes (EI30 to EI60). All the options are explained in Promat's UK's comprehensive new downloadable Specifiers Guide.

SYSTEMGLAS® Ligna's exact configuration of fire glass and components, including beading and setting blocks, is provided to joinery manufacturers who are fully supported by Promat UK throughout the manufacture stage.

www.promat-glass.co.uk

Construction of sherford's first primary school now well underway



Sherford's first primary school, Sherford Vale, is now one step closer to welcoming pupils, with construction of the main buildings continuing to progress quickly. Marking a monumental milestone in the development of the Devon community, local dignitaries, members of the Sherford Consortium and the first Sherford Vale teachers met at the new town to celebrate the occasion.

Located at the heart of Sherford, and with construction starting in Autumn 2017, the first permanent school structures are in the process of being completed, including the main school building, first classrooms, as well as an outside play area. With the recent addition of a new roof, works will also soon focus on the school's interior, with doors set to open to pupils from September 2018.

420 primary places will be available to children between the ages of 2-11 at Sherford Vale, with applications now open on the Devon County Council website. Representing a £6m plus investment into community infrastructure, the new school is being funded

and constructed by the Sherford Consortium - the partnership of award-winning homebuilders, Bovis Homes, Linden Homes and Taylor Wimpey - with £1m also being pledged towards its creation by Devon County Council.

The new school will be sponsored and run by the Westcountry Schools Trust (WeST), which has a proven track record in education excellence locally, also running neighbouring Ivybridge Community College.

The first Sherford Vale teaching staff member, Miss May, along with CEO of Westcountry Schools Trust (WeST), Rob Haring, joined local dignitaries and the Sherford Consortium onsite to celebrate the milestone.

Rob Haring CEO of WeST, said: "It is fantastic to have reached this landmark moment and to see Sherford Vale taking shape - taking us one step closer to welcoming the first pupils. Even though Sherford Vale is still under construction, we have been very busy behind the scenes, recruiting staff, planning and developing the school curriculum, as well as designing and launching the new school uniforms.

"Our vision is focused on academic excellence and success for all children, and over the past few months, we have been meeting with local families to discuss their hopes for Sherford Vale. It is exciting to be at the heart of a new community in one of the region's most picturesque areas, and we want children to ask questions and find solutions, while making full use of the great outdoors, helping and inspiring them to grow into confident young people."

www.sherford.org

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Roses bloom again after successful event at York University

Following on from the 54th Roses sporting event and Lancaster University's victory, we look back at last year's event, which showcased Rubb's multi sports facility at the University of York's campus.

The Roses sports event is a contest between York and Lancaster Universities which is steeped in history. Stemming from the War of the Roses that caused decades of civil war in the fifteenth century, this fierce rivalry lives on in the form of the largest inter-university sports tournament in Europe. With 50 sports and more than 100 fixtures, Roses is an amazing festival of sport.

Last year basketball was the showcase, opening event sport at the 53rd Roses opening ceremony, hosted in the Rubb designed York Sport Arena. The atmosphere was electric as the University of York prepared to put on an impressive performance at the opening event.

York and Lancaster battled it out in one of many big sporting fixtures over Roses weekend, with York making a dramatic comeback from 16 points behind to win 50-47, confirmed with the last shot of the game.

Head of sport Keith Morris said: "We built the arena for nights like this! To come back from 16 points down to win and the crowd reaction at the end was something that no one there will ever forget; it is one of my most memorable experiences working in student sport. The whole weekend was a huge success and was helped by maximising playing and spectator opportunities. By Saturday morning we had relocated the banks of seating to create further two show courts for a range of sports played over the rest of the event and meant that all sports had full crowds across the weekend."

Many of the other indoor events, including indoor hockey, netball, handball, badminton and volleyball were hosted inside the Rubb designed multi-use sport facility.

The 40m wide x 55m long steel and fabric-clad structure was a focal point for much of the action across the University's Sports Centre. The sports building features an apex height of 13.4m and provides a higher internal clear centre height of 11.9m. The Mansard, multi-pitch roof provides a substantial internal volume of playing space at 20,600m³. The structure is clad with Rubb's insulated fabric cladding system Thermohall®, which helps support a climate-controlled environment suitable for indoor sports. The sports arena includes a central, premier standard, multi-sports court for recreational and performance level basketball, netball, badminton, futsal and volleyball.

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OSMOUK Post Fix is a strong, easy-to-use, and fast-setting solution that allows users to fix sports posts in a matter of minutes, making it a cost effective, lightweight alternative to concrete.

With no complicated installation process and no need for any tools or fixings, everyone can use OSMOUK Post Fix. Applications include basketball and netball hoops, and football, tennis, and volleyball nets.

OSMOUK Post Fix has been specifically designed for use with wood, vinyl, PVC, steel, concrete, and metal posts. Filling the void between post and hole, this two-part component ensures the installed post is secure, providing high strength against impacts and shocks. The solution is waterproof, which helps to protect the post against rotting. Users can install posts using OSMOUK Post Fix all year round.

The installation process is extremely quick and can be done within minutes. To begin, dig a hole that is twice the dimension of the width of the post, and stand the post in the hole. To prepare the mixture, simply mix Part B into Part A and shake the bottle for 20 seconds. Immediately after it has been mixed together, pour the solution into the hole, with the post firmly in place. The solution will then expand in the hole, securing the post in the desired position. Once secured, you can cut away any excess solution, and then cover with sand.

OSMOUK Post Fix has a shelf life of 12 months, if stored in its original package and away from direct sunlight and moisture.

To watch the OSMOUK Post Fix installation video, visit www.vimeo.com and search for OSMOUK Post Fix.

For more information on OSMOUK Post Fix, email sales@osmouk.com or visit the below website.

www.easypostfix.co.uk



Panasonic GHP keeps skyliner sports centre cool



Skyliner Sports Centre, located in the Moreton Hall area of Bury St Edmunds in Suffolk, required an energy efficient and cost-effective air conditioning solution to be installed into their new building that houses their busy gym and fitness studios. There is a limited supply of power to the building which is why three Panasonic GHP (Gas Driven) VRF units were chosen as the ideal energy efficient heating & cooling solution for this project by installers Pitkin & Ruddock and distributor Oceanair.

Damian Nunn, Director of Pitkin & Ruddock went on to explain, "The main challenge for this project was the restricted amount of power allocated to the building, in this case on 200A TPN, which is not enough to accommodate a conventional VRF air conditioning system, as well as to maintain the other essential building services such as IT and lighting etc. The Panasonic GHP VRF units overcome this problem as they can operate on a lot less power, as it is only the fans and control circuits which draw on the power supply. The technology also ensures the system is also highly energy efficient."

The gym area and each fitness studios on site has a separate Panasonic GHP VRF system installed complete with four to six Panasonic ceiling cassette units. Whilst the cassette units are in use, fresh air is brought into the areas and stale air is removed via Panasonic heat recovery ventilation units.

Damian added, "The heat recovery ventilation units recover up to 77% of the heat in the outgoing air making for an ecological and energy efficient solution for this project."

The gas engine within the Panasonic GHP VRF units is used as a driving source of the compressor instead of the usual electric motor, this provides the advantage of waste heat being produced from the gas engine and being available to use elsewhere, thus freeing up the electricity supply for other uses. Furthermore, the system provides advanced all-round energy efficiency and is a very cost-effective solution for simultaneous heating and cooling.

The Skyliner Sports Centre is located within the grounds of a busy school, with the gym and studios being in constant use. The gym has been designed with comfortable spacious areas to accommodate the high quality 45 stations of equipment and overlooks the swimming pool. The equipment includes cardiovascular, resistance, functional training equipment and free weights.

www.aircon.panasonic.eu



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Who to trust

Experts in working with the education sector, Bauder has extensive experience of providing a variety of flat roof solutions from fundamental waterproofing through to green roofing and solar PV arrays on schools and academies. Bauder works in partnership with you to advise and deliver the best flat roof systems from survey through to guarantee.

The service you receive

Our team of highly experienced area technical managers and site technicians is one of the largest in the industry, ensuring a personal,

bespoke service throughout the project. A fundamental element of this service is the assistance that the Bauder team can offer with applying for the various funding that is available. This includes providing specialist reports and help with preparing and completing an application for submission to the Education Funding Agency (EFA) for Condition Improvement Fund (CIF) bids.

We also provide a no obligation Bauder roof evaluation to determine any issues that your flat roof is experiencing which can include moisture mapping investigations. This diagnostic report plots precisely the roof conditions, identifying if any immediate work is required. As one of the only roofing manufacturers offering this service, Bauder can uniquely identify, specify and complete the remedial works needed, saving on unnecessary work. We offer a wide range of advanced waterproofing systems to deliver the best solution to meet the practical, environmental and term time considerations of your school roof project.

Roof delivery programme

Once your school roof repair project starts, our experienced site technicians monitor the works as they progress, inspecting the installation and providing periodic reports. Excellent workmanship is crucial to the guarantee that accompanies Bauder installations and so we have always operated a policy to train and approve the individual installer, and not simply the contracting roofing company. A full final inspection is completed on the works by our site technician team before the guarantee can be issued. Our range of guarantees can cover all elements of product, design and installation of the Bauder system.

If you would like to learn more about how your school or academy can benefit from Bauder's comprehensive flat roof solutions, please call 0845 271 8800 or alternatively visit the below website.

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Remove the drama from school roofing installations with Metrotile

With the summer holiday rapidly approaching, many schools and academies across the UK will be taking the opportunity to tackle refurbishments and repairs before the new term begins in September.



With just six weeks, or even less during the other holidays, the last thing you need is a roof material that is heavy, requires a significant amount of transport just to get to site, takes up too much room before installation and then doesn't provide enough security against vandalism when installed.

Metrotile roofing is not like so-called 'traditional' roofing tiles, pressed from the highest quality drawing grade, ZAM-coated steel and offering unsurpassed security at a fraction of the weight and at either .450mm or .900mm thick. At one seventh of the weight, you need just one seventh of the transport, tiles are effortlessly transported to and around the site and most importantly, they're rapidly installed, easing the burdens of the tight school holiday deadlines.

www.metrotile.co.uk

Science meets modern classics

Bowman Riley Architects specified EQUITONE [natura] in colour Anthracite for the new science block at Harrogate Grammar School to juxtapose with the original, more traditional existing building to create a prominent addition to the school's campus.

"The natural and soft texture of EQUITONE [natura] responds well to the 1930s red brick buildings in the surrounding courtyard, providing a contemporary and modern approach," explained architect Richard Berry.



EQUITONE [natura] offers a tactile smooth surface which allows the textures of the fibre cement to show through the facade. All EQUITONE materials are available in a range of colours,

finishes, and fixing options, giving full creative scope. In addition, EQUITONE meets the reaction to fire classification A2-s1, d0, making it suitable for a variety of building types. EQUITONE also has a minimum life expectancy of at least 50 years.

www.equitone.co.uk

Refurbishing school roofs for the long term - *The need for a cost effective solution*

It is widely reported that local authority spending has been cut and capacity across both the primary and secondary sectors has come under increasing pressure, squeezing limited budgets still further.

Much of the UK's school building stock has flat roofs, many of which have seen better days, the challenge for schools is to manage the financial implications of this urgent maintenance issue and, too often, they opt for an ongoing cycle of the cheapest quick fix rather than a robust long-term solution.

Overlay Strategy

By far the fastest and least disruptive option for refurbishing school roofs is to clean and prepare the existing surface and carry out an overlay, with the new system laid over the top of the existing roof.

It's essential that the chosen system is selected to meet the long-term waterproofing needs of the building and is fully compatible with the existing substrate. Often the cheapest to install option does not offer the best whole life cost proposition and may end up being more expensive over a 25-year period that involves four or five rounds of repairs!

Kemper System's BBA accredited cold liquid-applied Kemperol membranes have been widely used on school roofs and can be applied on top of the existing failed bitumen, asphalt, felt or single-ply membranes with minimum preparation. Being cold applied, they also have the added benefit of reducing the fire risk associated with products that require hot works.

The Kemperol range includes Kemperol 2K-PUR, a solvent-free liquid system which is odourless, providing the ideal solution for roof refurbishments that need to take place during term time.

Long Term Thinking

There's no easy answer to making school maintenance budgets go further but, as we face increasing uncertainty about what the climate will throw at us and how our school buildings will cope, it's important to remember that a cheap quick fix may not be the most cost-effective long-term solution.

www.kempersystem.co.uk



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KI's 'Ruckus' chair shortlisted for a Mixology Award

KI is delighted to announce that its revolutionary Ruckus chair has been shortlisted for the Product of the Year – Task Furniture award at this year's Mixology Awards. The winner will be announced at the gala event on 21 June 2018 in London.

'Ruckus' is KI's innovative seating collection that redefines the boundaries of learning environments. It is a unique approach to the concept of 'active learning' as it enables the user to rotate 360 degrees within the chair so that they can quickly pivot and reorient themselves to where their attention is needed.

The chair's unique backrest offers supports and comfort, but also functions as integrated armrests, or for perching on at standing height. The backrest can even be used as a work surface for notepads, laptops or tablet computers.

The collection includes task, 4-leg and stack chairs, and stools in two height options. Each chair in the collection is available in 24 colours and 31 frame finishes and the robust base of the stack chair can be fitted with a steel storage rack in matching or contrasting colours. The generously proportioned seat with waterfall edges enhances comfort and stability for students of all shapes and sizes and upholstered seat pads can be added for even more comfort.

Designed and manufactured by KI in the USA, it comes with a 15 year warranty and won the 'Best of NeoCon 2017' Gold Award for education solutions.

www.kieurope.com



Dunham-Bush expands fan convector range

Renowned fan convector manufacturer Dunham-Bush has added a number of important new models to its comprehensive range.

The Smart-Vector has been introduced to help maximise indoor air quality, particularly when Building Bulletin 101 is a requirement. The new models will be ideal for installation in classrooms and offices where the highest standards of air quality are essential for the well-being and productivity of the occupants.

There are two floor standing and one high-wall models in the range with outputs ranging from 1.7 to 12.5kW. All models are available with EC motors and connectivity via BMS for increased controllability and comfort levels.

Smart-Vectors introduce fresh air into the building via a plenum fitted with an electronic damper linked to a CO2 sensor sited within the space. This provides automatic on demand ventilation in the room the emitter is serving and helps to achieve excellent air quality.

The units come complete with a standard control package, which provides fresh air heating, fresh air ventilation and recirculation heating modes. An extract air enabling option is also available. Further control options are available to meet specific customer requirements on request.

Also new for this summer launch are slimline wall mounted fan convectors with top or front grilles and outputs ranging from 1.4 to 9.0kW. Built to the same robust standards as the existing range of heating products and available with EC motors, they feature easy access for maintenance, pencil proof grilles and built-in or remote control options. The new Series SL is a great solution where space is tight.

The new Avant-Garde fan convector models have been designed specifically to interface with condensing boiler systems where return water temperatures are below dew point, (under 55°C). Avant-Garde models enable condensing boilers to significantly increase their combustion efficiency, while reducing emissions during condensing mode. The increased water temperature differentials across the coil also help to reduce pumping energy usage by up to 87%, while the decreased water temperatures reduce standing losses from pipework. The option of an EC motor can also reduce electrical consumption by up to 80% compared to a standard AC motor. Outputs range from 1.7 to 12.5kW.

Dunham-Bush has also announced that high specification Super Comfort fan convectors are now readily available from stock to meet fast delivery requirements during the busiest refurbishment periods over the school summer holidays. With outputs from 1.7 to 12.5kW, the Super Comfort AM range of fan convectors meets the most demanding lead times.

Dunham-Bush fan convectors are one of the best heating emitter solutions where fast controllable heat is in demand at various intervals during the day. Schools and public buildings fall neatly into these categories. For example, a school hall can be empty one minute and at full capacity the next. The ability to accurately meet these demands at short notice prevents long heat up periods and substantially reduces overshoots in heating requirements. Such controllability brings about major energy savings, with the added benefit of reducing CO2 and NOx levels.

www.dunham-bush.co.uk



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Unique curved Odyssey provides bespoke trunking solution at uni campus



A bespoke cable management solution was delivered to a tight deadline ensuring halls of residence at the University of Warwick were ready to welcome students in time for the new term.

Marshall-Tufflex's sleek Odyssey PVC-U trunking system offers a completely curved profile and is the only one of its kind on the

market. It has been designed specifically with health, education and office environments in mind.

Bespoke lengths of 2.25m were cut to size to fit-out student rooms in the Arthur Vick Residence at the university. The Odyssey trunking was supplied in white with flush fitting charcoal accessory boxes to comply with Part M of the Building Regulations.

The dado trunking delivers data and electricity to desk areas in each of the 150 study rooms and was part of a refit of the whole residence. The halls are in constant use so the pressure was on to complete the refurbishment during the university vacation time.

Marshall-Tufflex has a dedicated team to deal with special projects where cable management products are fabricated to customised design and specification. The team was able to provide the bespoke cut lengths with a quick turnaround, helping the refit stay on track and on budget.

www.marshall-tufflex.com

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Take cover...

Canopies are a clever way of making outdoor space useable for much more of the year - because whether it's January or June we're never quite sure what the weather will bring!

School buildings are great users of how flexible canopies can be, offering shade to play areas, or keeping the elements off outdoor eating areas.

Polycarbonate roofing supplier Twinfix marked the first use in the UK of its premium bolted glass canopy, when two of its new 'spider-bolt' contemporary canopies were used at the new Trumpington Park Primary School near Cambridge. Designed by architects Frank Shaw Associates for main contractor Kier, the design was based on Bulletin 103 guidance but was developed in close consultation with the sponsor Cambridge Primary Education Trust (CPET) and Cambridgeshire County Council and was tailored to suit their preferred educational vision and pedagogy.

One 20m long canopy floats above the main entrance, the other runs for 40m along the children's outside activity learning zone. The former comprises 1.5m² panels of 13.5mm of clear heat soaked glass used alongside cedar wood panelling (the panelling was not supplied by Twinfix), the latter 3.2m long x 1m wide panels of 19.5mm, both with a 1.5mm interlayer of PVB (Polyvinyl Butyral resin).

The pre-drilled bolted glass canopies were installed to a 2° pitch by Twinfix's in-house team using a hired spider crane, tower scaffold, and walk-safe gutters to lift the 70kg panels onto an existing frame of vertical and horizontal galvanised steel supports.

At Trumpington Park the canopies abut the building's façade above the galvanised steel plinth, while at the other end, they deliberately fall short of the horizontal supports at the entrance and overlap them at

Trumpington Park Primary School (image © Twinfix)



the outside activity learning zone. These cantilever canopies are also designed to be reverse pitch to allow drainage into a gutter next to the building and to keep the overall look sleek.

Manufactured from galvanised steel and glazed with laminated glass, they are fixed using satin stainless steel bolts with silicone seals. The use of bolts to fix the glass, rather than glazing bars, creates clean lines and large, open areas of glass.

The school's design was subject to the Great Kneighton Design Code and was required to play a key role in the fulfilment of the wider masterplan - a challenge for a 630 pupil primary school where child safeguarding was paramount. The solution was a simple plan on a north/south axis with east/west facing classrooms. This resolved a contradiction of the masterplan where southern pedestrian entry from School Square was required with vehicular entry from the north. This was a challenging arrangement for a primary school as it would otherwise have split the site.

The use of a deep plan allowed a favourable enclosure ratio matching the challenging cost plan. Organisational simplicity has allowed a structural simplicity suitable for cross laminated timber. This in turn allowed the remarkable nine month build time to be achieved.

The Twinfix canopy at the entrance is credited by the architects with helping to complete and make meaningful the cloister theme of School Square. Entry to independently operating parts of the school are all from the square ensuring maximum use of the public space, while internally a 'Heart' space is created through use of the multi-functional library which is also used as a hall extension and, at times, circulation space.

At Winstanley College in Wigan the catering is undertaken by an external provider, Caterlink, who provide schools, colleges and universities across the UK with a range of catering services. Canopies UK were approached by Caterlink shortly after they'd won the college's catering contract and the brief was simple - to cater for more students when space within the dining hall was already tight.

Canopies UK knew how to solve this predicament, and specified one of their Cantabria outdoor canopies, which they tailored to the brief, meaning that the canopy ticked both the college's and Caterlink's requirements. The dining hall doubles up as a

multi-purpose room that students use during their free periods all-year round, which was one of the college's main requirements.

Now that the Cantabria is in place, Caterlink is serving more students during break and lunchtimes, while the students themselves have a light, bright area where they can study, regardless of what the weather's doing. They can sit with the sun shining down on them, and on greyer, wintry days they can still use the area because the roof of the Cantabria can be closed at the touch of a button. Incorporating LED lighting and electric heating, the Cantabria has become a much-loved feature at Winstanley College. And it's now widely referred to by students and staff as the Garden Room and used for a wide range of events, such as parents' evenings.

In Sheffield, a £15m Academy, which helps tackle a demographic need for more academy places, has been built on the site of the former Don Valley athletics stadium. The new Oasis Academy Don Valley, an all-through academy, provides modern, state-of-the-art learning spaces for 1,200 students aged from two to 16.

A variety of Technal's range of systems appears in the design, and Technal's MX curtain walling has been used as bespoke canopy glazing to create covered walkways and a protected external play area for the Academy's nursery and primary areas, which also allows light to flood into the classrooms behind.

And currently underway, the £8.2m contract for the design and offsite construction of a new 630 place primary school for Concordia Academy in Romford was awarded to the McAvoy Group. Facilities will include a music and drama studio, main hall with adjacent smaller hall, 14 classrooms, full catering kitchen, activity room, small group learning rooms, staff room and administration offices.

The design solution maximises the external play space within the site and the landscaping will create an inspirational external environment to reflect and support the school's educational needs. There will be a hard surfaced games area for high-energy play; an informal outdoor learning area with tensile fabric canopy to provide a shaded area; a garden space with raised planting beds; a dedicated, secure reception play area along the southern elevation, and a natural habitat ecology zone.





Emoji bin wins!



When a range of concept designs for new school waste and recycling bins was shown to pupils in the South West, one stood head and shoulders above the rest - the Emoji

Bin from Leaffield Environmental. So enthused was Vince Wright, Leaffield's UK and Export Sales Manager, that the designs have been realised and the new bins have been produced and introduced in super-quick time.

The new bins were designed with emoji faces in order to help younger children identify between recyclable litter - smiley face emoji, and landfill waste - sad face emoji, but they have already established their place as 'happy mixed waste bins.'

The new Emoji Bins are manufactured entirely from recyclable polyethylene, the bin bodies being manufactured from recycled material. They stand some 80cm high and have a capacity of 60 litres when used with a plastic sack liner or 70 litres when used with the optional moulded plastic liner.

www.leaffieldrecycle.com

How long will a new timber fence last?



A new timber fence is a substantial investment which you would expect to last 15-20 years. In reality this can be quite different in many cases.

What customers may not realise is that there is range of timber fence post options available. Whilst some timber posts last many years, others fail after only a few. Timber fence post failure, due to ground rot, is the root cause of fence failure.

From the moment a new timber fence is installed, decay will start to occur at the ground line section of the fence post. Some wood preservative treatments will keep this at bay for many years, others will only protect the wood for a few years. A perfectly good fence will fall over when the timber fence post has rotted through at ground level, meaning the whole fence will need repairing or replacing.

It really is worth ensuring that the timber fence posts that are used will last for 20 years.

Timber fence posts fitted with Postsaver ground-line barrier sleeves, offer the ultimate protection as they completely protect this vulnerable section of the post from ground rot. They have been in production for over 20 years, and have been proven to prevent ground rot.

www.postsaver.co.uk

Striking a balance between security, aesthetics & budget

Jacksons fencing research highlights challenges facing architects when installing school fencing.

- A third of architects say that schools have weak points in their perimeters and entrances
- Multiple entry points are the biggest access control challenge affecting schools (90%)
- Nearly all architects are familiar with Secured by Design standards (95%)
- 71% of refurbishment specifications are identical to the original ones

Today Jacksons Fencing, the UK perimeter security manufacturer and specialist, releases insights into architects' views on school safety from its report 'Protecting the Future'.

Taken alongside teachers' perspectives, the report highlights significant differences between architects and school management as well as some reassuring common ground.

On average, almost two thirds of architects know of schools being affected by fencing and gate issues (60%). While a similar amount of head teachers have commissioned new access solutions at least once (63%) and over three quarters have had their perimeter inspected within the past five years (80%), these problems are clearly not being resolved.

The majority of architects (71%) find that school security refurbishments use the original specifications with some value engineering while a significant number know of schools down specifying to save cost (17%). This is despite head teachers' greatest concerns being unauthorised exits and entrances (30% and 25%), both of which can be prevented with well-designed and specified fencing and gates.

Specification evasion

Architects identify budget as the greatest challenge when installing school fencing (84%), followed by restricted installation times (48%) and working where children are present (39%). The high number of schools keeping the same specifications or down specifying may be a reflection of this concern for cost and minimum disruption.

A perimeter's price tag is not the most significant concern for schools, however. Performance is the highest priority (73%) for teachers, followed closely by security ratings and accredited products (68%). These come ahead of both lifetime and initial costs (64% and 59% respectively).

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It doesn't add up...

Schools are struggling to accommodate increasing pupil numbers, with the impact of extra pupils exacerbating the already significant strains on school buildings, a survey by the NASUWT, the --

Crumbling buildings, temporary classrooms, and rising class sizes are major challenges facing too many schools.

Nearly half (48%) of teachers who responded to the survey said that the number of pupils on roll at their school has significantly increased in the last five years, with 72% saying class sizes have become larger as a result.

More than one in five (21%) said that classrooms had been created in temporary structures or by using other areas of the school to accommodate extra pupils.

Teachers have serious concerns about the condition of their school buildings and the impact this is having on pupils' learning.

During the conference, representatives debated a motion on the misuse of school funding, highlighting concerns that in some schools money is being used to fund vanity projects rather than to support the delivery of high-quality education and the maintenance of buildings.

Half of those who responded to the survey said that their school has embarked on significant spending projects in the last five years, with 29% saying that this money had been spent on new branding or rebranding for the school, a quarter saying money has been spent on appointing extra members of the management team, and 22% saying money has been spent on hiring consultants.

"This is a disgraceful picture of schools in the 21st century, and revealing about the spending priorities of some schools," said Chris Keates, General Secretary of the NASUWT. "The impact of the Government's failure to plan adequately for the predicted increase in the number of school places is clear for all to see. Instead of supporting schools to plan for increases in pupil numbers, millions of pounds have been poured into its ideological free schools project while pupils and teachers in other schools are crammed into inadequate buildings.



Chris Keates, NASUWT General Secretary

"The failure of government is compounded by those employers which, rather than invest in the maintenance of their school buildings and improving the learning environment, have chosen instead to stockpile their funds in reserves or give priority to vanity projects which have little or no impact on educational outcomes.

"Our children and young people deserve a learning environment which enhances their experience and provides them with the fit for purpose spaces and facilities they need and deserve."

Judging by the comments from some teachers we have shown here, it would appear that there is still a very long way to go to properly fund school building programmes, and to run adequate maintenance strategies.





THE FINDINGS

The survey, which received over 1,200 responses, also found:

- as dining halls and entrance ways are not large enough for the number of pupils and staff using them and 64% said the same of their classrooms and teaching spaces
- 55% said there is not adequate room for staff and pupils to move around their classroom safely and for effective learning to take place
- 72% said the size and layout of the school does not support positive pupil behaviour and 57% said the same of their classroom
- 58% said the overall physical condition of their school has declined since they started working there
- 71% said there were signs of leaks, damp or mould around their school and 55% said the same for their classroom
- 77% said the temperature in their classroom was not comfortable all year round and they did not have the means to control the temperature themselves
- 58% said there are not adequate numbers of toilets for staff and pupils and 53% said they were not in good condition
- Only 15% said their school was fitted with sprinklers in the event of a fire

These findings were released in the NASUWT's Annual Conference in Birmingham.

PHYSICAL CONDITIONS

When asked about the physical condition of their school buildings and classrooms, some teachers commented:

"The school was built in the 50's as a temporary school and it wasn't meant to last more than 20-25 years. It was supposed to get a new build from the government but it didn't go through. It is riddled with asbestos and the roof badly leaks whenever it rains."

"There are insufficient classrooms so we have to teach in the social area- effectively a large corridor."

"Having been built in the 70s for a specific number of children and yet the intake in London continuously increases, class sizes are growing. But while we may continue to take more students, that doesn't make the hallways any bigger. There are no longer amenities like lockers, they had to be removed. We have had to implement crowd control one way systems because otherwise it was absolutely dangerous for the students changing classes - not to say that there isn't a bit of a crush even with this."

"We have two old mobile classrooms. They have been rapidly declining. The heating often does not work and children sit in coats to learn. In summer the mobiles are stifling with ridiculously hot temperatures. There are frequent problems with the toilets and drains. They are cramped. Numbers on roll are increasing and we cannot accommodate them."

"If we wanted a classroom re-painted, we had to buy the paint personally and use the holidays to do it ourselves."

"There is no board for me to write on - pretty essential since I am an English teacher. One window doesn't open at all and the rest aren't sealed properly so there is usually a draft."

There are two cupboards in my room and neither has a handle."

"My classroom has thick black mould growing up the walls, the paint is peeling and the room smells very damp."

PUPIL NUMBERS

Teachers were also asked to give any comments about the impact which changes to pupil numbers have had on physical environment in their school.

These included:

"Becoming more hazardous - twice the number of students that should be working in practical areas."

"Increase in numbers by 120 pupils, (15%) one extra form entry by 4 years, has seen classes at max size (32) and all rooms being used, including rooms not designed for 32 pupils (6th form rooms designed for 24 max). Often students sharing desks, not enough chairs - have taught students sitting on the floor."

"We have removed the computer room and the art room, we have lost an internal courtyard and had the size of the staff room reduced."

"Some classes exceed 30 students, which means in some classrooms three students using a desk designed for two students."

"Corridors are unsafe when students are moving between lessons."

"Too many children on too small a playground means more incidents at playtimes."



Fast track all the way

Whitworth Park School and Sixth Form College in Spennymoor, just south of Durham, provides an environment where they strive for 'excellence for everyone.'

The school previously had a new block constructed during the Building Schools for the Future programme, and the remaining part of the works required the fitting of new floor coverings to the circulation routes of the old block that would continue to be retained.

The project had to be completed quickly to avoid disruption to the education facility. The requirement for a fast track flooring and durable solution was well-suited to international flooring specialist Gerflor, who supplied their amazing GTI Max flooring. This would prove its worth in saving both time and money for Durham County Council as there was no need for the school to close, with the installation being completed in only four days.

www.gerflor.co.uk



Style's partnership with Sunesis grows



Since 2010, Sunesis has successfully delivered over 18,000 school places, on time and on budget, with every project receiving high customer satisfaction scores. Clients choose a building model that best meets their needs, adapting it to their specific requirements.

Flexible space is an important part of the personalisation process, and on the Keynes2 range of primary schools, Sunesis customers benefit from the very best partitioning solution thanks to the partnership with Style, which is providing a DORMA Variflex moveable wall with a superb 55dB Rw acoustic rating.

"DORMA Variflex is a superb product, and a key advantage for schools is that the panel faces are easily detached from the frame, whilst the panel remains on the overhead track," explained Mike Fine, Style's director for the midlands. "If one is damaged, you only have to swap the affected panel face rather than replace the whole system, which can save considerable money."

www.style-partitions.co.uk

Discover a new world of colour

Commercial and residential vinyl flooring specialist Polyflor has launched their spectacularly colourful new homogeneous flooring collection, Palettone PUR. Designed for contemporary interior design schemes in education and other commercial projects, durable Palettone sheet vinyl flooring has a 2mm gauge and features a high quality, cross-linked, UV cured polyurethane reinforcement that protects the floor covering by resisting soiling and scuffing.



All 50 Palettone shades are available in 2 x 20m sheet format, while 12 of these shades are available in 608 x 608mm tiles, and six are available in an SD sheet specification.

Palettone is 100% recyclable through the Recofloor vinyl take back scheme and contains recycled material. The collection has achieved a generic BRE A+ rating in major use areas, helping to contribute points within a BREEAM Assessment. Palettone also achieves Indoor Air Comfort Gold certification for low VOC emissions, an internationally recognised indoor air quality standard.

www.polyflor.com

Good acoustics for Art & Design

Bedales School's new Art and Design building has a strong sense of countryside, incorporating renewable natural products including sustainably sourced timber for cladding, and Troldekt's wood wool panels for acoustics, all of which help to reduce the embodied carbon in the construction.



The form and east-west orientation of the pitched roofs defines a series of carefully scaled, north-lit studio spaces. Their dramatic pitched ceilings comprise Troldekt acoustic panels on one side to absorb sound and improve acoustics. On the other side, natural light is maximised and the need for artificial lighting reduced. In what is otherwise a lightweight building, the thermal mass of exposed concrete surfaces contributes to a stable internal temperature.

Troldekt natural wood wool panels are available in various sizes and in four grades from extreme fine to coarse, and they can be left untreated or painted in virtually any RAL colour.

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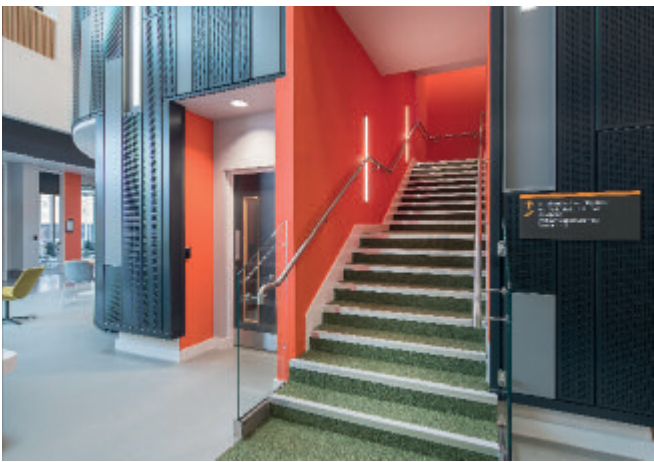
Gradus XT – the best just got better

Contract interiors specialist Gradus has updated its market leading XT range of aluminium stair edgings. New aluminium XT retains all the existing benefits of XT with the addition of new features that offer improved performance.

The Gradus XT range of stair edgings offers the ultimate solution in reducing slips, trips and falls on stairs and supports the recommendations in the latest building legislation and standards.

The range features an extended insert design that wraps around the leading edge of the step to ensure that foot contact is always made with the slip-resistant element of the stair edging, providing maximum safety underfoot and minimising the risk of slip.

In addition, new XT aluminium profiles now feature a unique locking mechanism that secures the slip-resistant insert in place on both the tread and riser. This removes the need for an adhesive bond between the insert and channel and increases the resistance to moisture ingress, making the profiles ideal for use in areas subject to more frequent cleaning e.g. healthcare and education environments.



In addition to the XT profiles, Gradus has also improved the range of inserts designed for use in areas where the stair edgings may become wet e.g. stairs close to entrances or where safety flooring is used. New Xtra-grip and Xtra-grip Plus inserts provide increased surface roughness and, when combined with the new XT profiles, offers one of the most robust stair edging solutions on the market.

For the complete solution, XT stair edgings can be installed with Gradus Grip ultra-strong stair edging adhesive, eliminating the need for mechanical fixings and screw head cover plugs, providing a hygienic, aesthetic solution.

BIM objects are available for the complete range of XT stair edgings, including PVC-u Hardnose.

For further information, please contact Gradus Technical Support on 01625 428922 or visit the website.

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Versatile Multiwash achieves consistently high results

Scrubber dryer provides the solution for hygienically clean floors

Floor cleaning in schools and colleges needs to be smart – in terms of efficiency as well as results. The Multiwash scrubber dryer is a workhorse for cleaning teams in education, highly valued for its versatility and ease of use too, as managers in the sector confirm*.

Truvox International's Multiwash can wash, scrub and dry floors in one pass, leaving them safe to walk on in minutes – and hygienically clean for infection control.

Highly versatile, this scrubber dryer can clean virtually any hard floor – from classrooms and sports halls, including non-slip safety flooring, to pool-sides – and even entrance mats and low-pile carpets. With cleaning widths of 24cm, 34cm and 44cm, each model is easy to use and manoeuvre, even under desks and furniture.

The cordless Multiwash 340/Pump Battery model is ideal for busy spaces. A quick battery change doubles run time to 100 minutes.

Truvox high-pressure counter-rotating brushes require less water and solution, and speed up the drying process, as well as giving consistently top results.

*See our case study at

www.truvox.com/case-studies/scrubber-dryers-streamline-carpet-cleaning-in-historic-stowe-school





TVS helps keep school in sport's fast lane

Lancashire-based TVS Group is using its expertise in sports flooring to help education create world class facilities.



Turning the ordinary into the extraordinary is part of the thrill of projects in the education sector, according to TVS Group Sales Director Andy Roberts. While his company continues to be a favourite flooring supplier for health clubs, sports halls and gyms across the country, its sports flooring work in the education sector is producing equally eye-catching results.

When Bryanston School in Dorset, one of the country's leading co-educational independent boarding schools, decided to create three new elite performance areas, specialist TVS was tasked with providing all the flooring solutions. The project included a new 40 metre sprint track, a new sports hall and an elite-level strength and conditioning area. With Bryanston responsible for developing a number of top athletes, professional rugby players, cricketers and even a double-Olympic eventing champion –Germany's Hinrich Romeike— the school demanded exacting standards.

"The three-lane athletics track presented a unique challenge," explained Andy Roberts. "It had to conform to IAAF standards, take a running spike, join up with the strength and conditioning flooring at the same floor height and match the colour scheme of the sports hall. Force plates, to analyse the biomechanical performance of each individual athlete, were also to be installed at a point below the track, adding another level of complexity to the project."

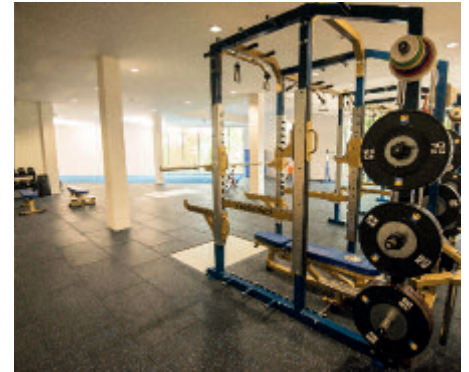
The solution was to use the company's TVS SW 1200 sandwich system, which is certified to IAAF standards. This system is installed using a TVS prefabricated elastic layer, poured in polyurethane binder and an EPDM granulate spread over the top. As part of the works, the school constructed the concrete slab work in order to ensure the athletics track, hallways and strength and conditioning areas all met at the exact same height.

In the strength and conditioning area TVS installed T40 Sportec Style Tiles, a 40mm-thick, interlocking, heavy-duty rubber gym tile. The tiles are manufactured specifically to cater for heavy weightlifting activities. Despite the irregular shaped room – and the IAAF track running in at an acute angle – the tiles were all installed in a single day to create a large open plan free weights area.

For the sports hall, the flooring solution needed to be a surface that could both satisfy the requirements of a variety of sports and conform to EN14904, the strict European sports flooring standard, ensuring player safety, longevity and performance quality. The high slip resistance and excellent wear characteristics of the TVS Sports PU system made it the perfect choice for Bryanston. Due to their surface durability and point elastic performance, PU systems are ideal for multi-sport use and can even be used, if required, to stage non-sporting activities.

TVS utilised a seamless, polyurethane, point elastic system, incorporating a four-layer build to ensure a level surface with performance characteristics suitable for

multi-sport use. TVS also identified and rectified damp and level issues in the structural sub-base by installing a damp proof membrane, as well as a self-levelling screed to the sporting areas.



On completion TVS also consulted with the school to customise the line markings in accordance with their elite sports programme, so that the new surface could be used for a range of sports from indoor hockey and netball to volleyball, badminton, basketball, tennis and futsal. Bryanston has now also appointed TVS to refurbish its old sports hall to bring it up to current standards. This is part of a school-wide improvement programme to the sports facilities including newly-built fitness suites, studio spaces and pool hall."

For more information, please email Sales@TVS-Group.co.uk, call 01706 260 220 or visit the below website.

www.tvs-group.co.uk



School makeover revealed as part of Dulux smarter spaces initiative

After beating off competition from schools across the country to win the 2017 Dulux Smarter Spaces competition, Lawley Primary School has revealed the £10,000 makeover awarded as its prize.

Taking inspiration from the school's year five pupils, the colour and design transformation has totally revitalised and refurbished the school's entrance hall and main corridor. After taking thought-provoking ideas and design concepts from the students themselves, it was decided to utilise colours and inspiring images to decorate the space, mirroring the ethos of Lawley Primary School, its staff and the children.

Launched in April, on the belief that a vibrant space that utilises effective colour and design can help inspire teachers and students alike – a view backed up by 85% of teachers according to a Dulux study – the competition required schools to submit a 300-word entry explaining why they should win a £10,000 transformation and how they would make use of the funding. After receiving entries from across the country, Lawley Primary was chosen as one of two winners by a panel of judges, including Matthew Burton and education expert, Professor Stephen Heppell.

Dulux Smarter Spaces Ambassador Matthew Burton, of Educating Yorkshire fame, unveiled the new space at a ribbon cutting ceremony on 6th March. He said: "Dulux research undertaken as part of this initiative has shown that a staggering two thirds of schools in the UK lack the funding to make basic refurbishments, so it's a real honour to be able to give something back to two deserving schools.

"In my many years as a teacher I have witnessed first-hand the effects a cared-for classroom or school environment can have on pupils' wellbeing and grades, and I've also seen how neglected spaces can be uninspiring and a challenge to teach in. I'm fully supportive of learner-led design. I believe children are much more likely to be engaged if they have a bright and colourful space that they've had some element of creative control over, so it's wonderful to see Lawley Primary School children's designs brought to life."

The Dulux Smarter Spaces team works in partnership with schools to find the best solution for their particular needs, from making sure they are matched with a quality decorating contractor to ensuring every aspect of the project is smoothly managed. Offering expert colour and design expertise, the service helps schools get the most out of their environment within their budget and allows teachers and head teachers to focus on running the school.

For further information on Dulux Smarter Spaces please call 0333 222 7022 or visit the below website.

www.duluxsmarterspaces.co.uk



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At the double!

A £12m scheme, funded by the Solent Local Enterprise Partnership (LEP), which aims to create a world-class engineering workforce on the Isle of Wight, has been shortlisted for two industry awards.



The Centre of Excellence for Composites, Advanced Manufacturing and Marine (CECAMM) – a new educational facility at the Isle of Wight College – has been nominated for a Royal Institute of British Architects (RIBA) [IW] and IW Society Design and Conservation Awards and a Local Authority Building Control (LABC) Regional Building Excellence Award for the best educational building in the south east.

Leading property, construction and infrastructure consultancy Pick Everard delivered full multi-disciplinary services for the project – designing the building as well as acting as quantity surveyors, project managers and mechanical and electrical engineers – which provides 3,050m² of high quality teaching facilities and flexible workshops for up to 500 engineering students.

“We’re delighted that the CECAMM has been nominated for two prestigious awards, showcasing the success of such a worthy development,” said Rod Burton, partner at Pick Everard. “We achieved a BREEAM design rating of ‘very good’ by incorporating sustainable solutions – such as rainwater attenuation and optimised use of day-lighting – within the design.

“Due to the nature of the clients’ requirements, the project challenged the design team from the outset, particularly the mechanical and electrical engineers, as they had to work to very exacting standards when producing specifications for the specialist equipment needed. Surface water was also a particular challenge, resulting in the design and construction of swales, these shallow channels now serve to enhance the local habitat and landscape quality within the site by collecting water.

“This new facility will contribute to a sustainable, long-term economic development on the island, hopefully encouraging young students to seek their career path here. The design was a team effort within a very tight budget with guidance from island employers to give students the skills they need for work.”

The CECAMM Centre, situated at Whippingham Technology Park, East Cowes, provides training in numerous specialist industries, including 3D printing, bench fitting, boat construction and design, marine engineering and fabrication.

“This world-class facility is intended to meet the needs of our prestigious island employers and offers students a broad experience of engineering skills, designed to support them building careers and maintaining the reputation of the Island as a focal point of engineering excellence,” explained Debbie Lavin, principal of The Isle of Wight College. “As such, the design of the building and its content was fundamental to supporting that vision and I am delighted that is achieving those aims. Students and employers have all agreed that in operation the facility more than meets the very high expectations it was conceived for. It is a wonderful place to work and study and I am proud of it and all who contributed to it being here.”

The RIBA [IW] and IW Society Design and Conservation Awards celebrates the best architecture across the Isle of Wight. The winners of the LABC Regional Building Excellence Awards – which celebrates achievements in the construction industry – will be announced in June.

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Case study: National College of High Speed Rail

Vitesse Plus lighting control system and An-10 wireless controls increase energy efficiency at the new learning space in Doncaster

Thousands of engineers will need to be trained at the National College for High Speed Rail in Doncaster, meeting the future requirements of the UK rail sector.

CP Electronics, the leading supplier of lighting controls in the UK, supported the construction of the building at each phase of the development, from design to completion, ensuring that the project was executed correctly, first time round.

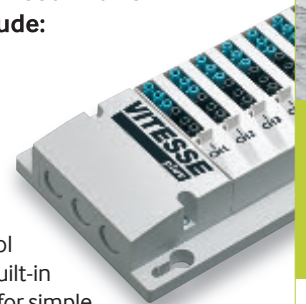
“The support from CP Electronics throughout the project was first class. We were particularly impressed with the technical support that was provided to us.”

Nick Richardson, Project Manager, Briggs & Forrester



Products utilised in this project include:

Vitesse Plus:
Standalone lighting control system with built-in pre-set menu for simple commissioning.



An-10: Wireless presence detectors led to reduced wiring and installation time in this project.



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