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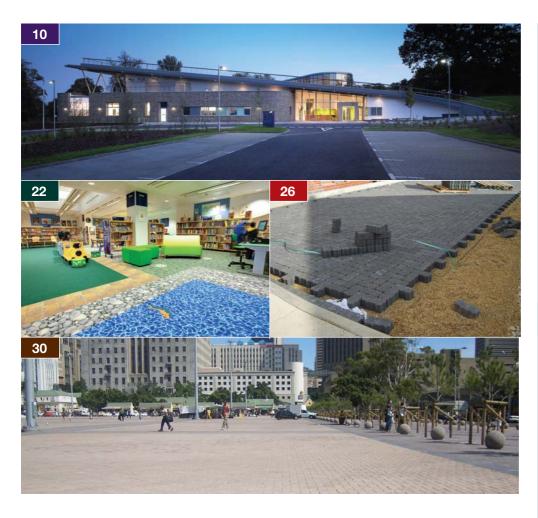
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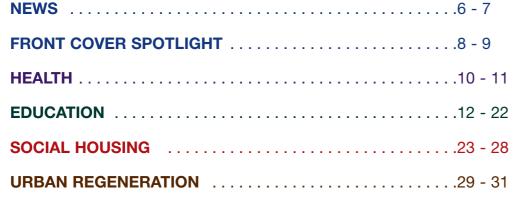


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Promethean ActivClassroom

Interactive learning technologies are increasingly being placed at the heart of schools' improvement strategies.

Promethean has a proven track record in embedding technology in new build projects. Of the 42 schools re-designed or re-built as part of the Building Schools for the Future programme by the end of 2009, 60% incorporated Promethean

ActivClassroom interactive solutions.

For more information on this and other recent projects, see page 8 - 9 **Enquiry 2**

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Nineteen Kaba SLX single sliding door packages, have been incorporated into new ward bays as part of the hospitals continuous improvement of patient dignity and privacy.

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activation by touch-less pads help to fight the spread of infection. 2.2 metre wide pocket side screens have been inlaid with dry wipe boards which are used by staff to record patient information providing a practical, reusable resource.

Julie Firth, Director of Nursing and Patient Experience at Colchester Hospital University NHS Foundation Trust said "The installation of Kaba sliding doors will help us to achieve national standards of delivering single sex accommodation one month before the national deadline". "While doing all that we can to optimise privacy and dignity is one of our priorities, we have also found that their installation has helped to modernise our estate and improve the physical environment, both for patients and staff".

Kaba Door Systems Ltd, Door Automation, Halesfield 4, Telford, Shropshire, TF7 4AP. Tel: 0870 000 5252. Fax: 0870 000 5253. Email: info@kdt.kaba.com. www.kabadoorsystems.co.uk

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Welcome...

ublic sector work is likely to change out of all recognition in the next couple of years. The new coalition government is committed not just to austerity measures, but also to a very different type of provision and even of society. The last government embarked on enthusiastic spending, only to find that some of its procurement methods militated against quality. In its efforts to control cost to itself through PFI and assure certainty through design and build, it ran the risk of squeezing out design quality and innovation.

But we should not be over-critical. It is easy to forget just how appalling a state much of our public domain was in 15 years ago. Schools using 'temporary' classrooms for years and even decades, and classrooms with buckets to catch the drips, are consigned to history. Many new health buildings may be less than ideal, but most are a great deal better than the worst of what went before.

Government seems to be a blunt instrument. Having determined a course and set out on it, it never seems quite able to refine this as it goes along. Pin your colours to the mast, and it is difficult to restitch them with time. We seem to need changes of government to get rid of the last set of bright ideas that have fossilised into orthodoxies.

Of course, what this latest government is not going to do is spend in any significant way. Doubtless, by attrition, it will discover that it needs to allocate more money to buildings than it previously thought necessary. Michael Gove, the new education secretary, has already apologised for unwise remarks about architects 'creaming off cash' from Building Schools for the Future.

We may be ready for some austerity and simplified structures. The idea of making do and mending, rather than sweeping away aging schools and hospitals, and blowing up failing housing blocks, has a certain appeal. We must hope though that this government realises that good architecture is an investment and not a cost.

Doubtless CABE is having to make some sacrifices, faced with a 3 per cent cut in funding. But the fact that it has survived so relatively unscathed should hold out some hope for the quality of buildings in the years to come. It will have a big task ahead of it, particularly once this government's bright new ideas also fossilise into some unsuitable fixed attitudes. Tighten your belts for a rocky ride.

Welcome to Public Sector Building Specification

DAVID STILES PUBLISHING EDITOR



Public sector organisations turn over 'green' leaf



PUBLIC SECTOR BODIES INCLUDING SCHOOLS, HOSPITALS AND LOCAL AUTHORITIES ARE SAVING A PROJECTED LIFETIME TOTAL OF £244M IN REDUCED ENERGY BILLS, THANKS TO THE £57M GOVERNMENT FUNDED INTEREST FREE LOAN PROGRAMME THAT ENABLES THE INSTALLATION OF SIMPLE ENERGY EFFICIENCY MEASURES.

he Salix Energy Efficiency Loans (SEELS) fund administered by Salix Finance was fully subscribed in just nine months after the launch of this unique stimulus package following the 2009 Budget. A total of 1,435 energy efficiency projects across 218 organisations are now scheduled for completion over the coming months. This investment, all of which will be returned to the public purse, will save the public sector an estimated 85,000 tonnes of CO₂ annually and some 1.2m tonnes over the lifetime of the projects.

In addition, the Salix Finance £84m recycling fund is supporting around 3,000 projects, which are forecast to generate lifetime energy savings in excess of £165m. Salix Finance is currently working with public sector organisations to indentify and develop new projects to reinvest their savings into, a process which continues until no further work

can be identified. It hopes to be able to work with new clients in the future to make cost savings and reduce carbon dioxide emissions.

Frimley Park NHS Trust in Surrey used a Salix fund of £121,000 to enable energy efficiency projects that are projected to generate lifetime savings of almost £446,000 and over 3,000 tonnes of CO₂. Similarly Greenwich Council is implementing more than a dozen projects that will improve energy efficiency and drive down emissions across the borough, leading to lifetime savings in excess of £2m and CO₂ reduction amounting to 17.8 tonnes. And at Surrey University, efficiency projects costing just over £600,000 will lead to lifetime savings of over £2.3m and 13,000 tonnes of CO₂.

All Salix funded projects use proven technologies that get quick results and continue to operate effectively for many years. These include upgraded lighting,

insulation and heating, combined heat and power systems and improved IT controls systems to street lighting systems in order to prevent unnecessary energy use.

For example, Reigate and Banstead Borough Council is installing a new lighting system in one of its multi-storey car parks. The change will reduce current power consumption by 76% and will save the council £20,000 a year, which will be used on future energy projects.

Solar powered traffic bollards are being introduced on Warrington's streets as part of an energy efficiency programme which will enable the borough council to save £150,000 in energy bills and reduce carbon emissions by 757 tonnes over the next four and a half years. Other measures include changes to street signage lighting and upgraded heating controls in council buildings.

Students at the University of Cumbria are thought to be the first to have their digs heated by renewable energy produced from chipped willow which is grown on site. A biomass boiler has been installed which cost £500,000 and is expected to save 260 tons of carbon dioxide every year and will make immediate annual savings of £50,000.



Public sector organisations have stringent sustainability targets to meet, with initiatives such as the 10:10 campaign encouraging organisations to reduce their carbon footprint by 10% during 2010 and the Carbon Reduction Commitment requiring larger organisations to reduce emissions by 60% by 2050. However, it just goes to show that some public sector organisations are translating these challenges into reality. There is no doubt that reducing your carbon footprint also results in long term cost savings and is well worth any investment.

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Salix Finance

Enquiry 5



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Investing in future technology

By Alistair Hayward, Director of UK business development at Promethean

THE LINK BETWEEN THE QUALITY OF A SCHOOL'S DESIGN AND THE QUALITY OF EDUCATION PROVIDED HAS INCREASINGLY BEEN RECOGNISED AT PLANNING AND POLICY LEVEL. DUE TO THIS, THE BUILDING SCHOOLS FOR THE FUTURE (BSF) PROGRAMME WAS LAUNCHED BY THE DEPARTMENT FOR CHILDREN SCHOOLS AND FAMILIES (FORMALLY THE DEPARTMENT FOR EDUCATION AND SKILLS) IN 2004.

n its aim to rebuild or remodel every secondary state school in England by 2020, BSF will transform around 3,500 secondary state schools throughout the next decade. Bringing together significant capital investment for school buildings, as well as for information and communications technology (ICT), BSF is the biggest ever investment programme in school buildings. With an average of £2.5 – 3 billion being spent on the

programme annually, BSF aims to create cutting-edge facilities that push the boundaries of traditional teaching. As increasing evidence demonstrates that interactive technology is enhancing motivation and facilitating results, it is important that the implementation of technology is considered from the outset. With this in mind, BSF provides a stimulus package equivalent to £1675 for every student to ensure that





buildings are designed to maximise the use of ICT (Partnerships for Schools, 2010).

Implementing technology

A specific challenge with the implementation of technology in education environments is the absence of clear legislation for ICT provision. Whereas other areas of school construction are addressed by the building regulations, for example BB93, which covers the acoustic design standard of a school, when it comes to ICT, the requirements are much more open to interpretation.

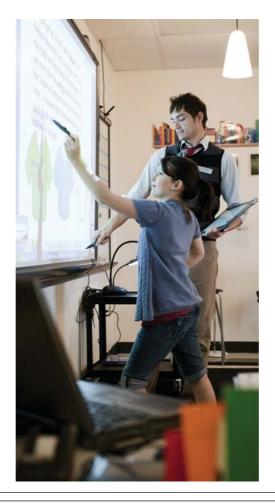
In the BSF programme, the strategy for implementing ICT is designed by individual local authorities, which set out the requirements for the ICT procurement upon consultation with building contractors, education consultants and local teachers. One building and ICT contractor is assigned to each local authority a minimum of three years before the building process begins. In this time, the contractors work closely with ICT providers to design an intricate output specification in line with the local authority and schools' requirements.

Improving education

As only one ICT consultant is appointed to ensure the provision of technology in all schools in the region, they often work in unison with educational technology providers, such as Promethean. Choosing an experienced and trusted technology provider is key. With a proven record in working with schools, providers can advise BSF consortia on solutions that will make a real difference to the teaching and learning environment.

Also, through involvement in the early waves of the BSF programme, providers have obtained a wealth of experience and examples of best practice that can be readily applied to a specific project.

Working with ICT partners, education technology providers advise architects on various practicalities, such as the best positioning of interactive whiteboards within a classroom in terms of sightlines, and the integration of additional tools. Providers also deliver guidance on the latest technologies, such as extreme-short throw projectors, which have been specifically developed to offer improved performance in a variety of lighting conditions. Project Architect, Sharif Mousawi, of Ellis Williams Architects, explains: "Assisting schools to translate their vision into reality is a considerable challenge and responsibility. Working closely with schools, we are able to co-ordinate an appropriate layout for each learning space. In a recent project for example, our initial designs were shaped by the curriculum, with each head of department working in consultation with the ICT provider to ensure that all classrooms were designed with the implementation of technology in mind."



Enriching learning

Establishing a clear vision for the school from the outset, and approaching ICT as a fundamental element of building design is crucial. Practicalities such as ensuring a sufficient number of power points are fitted within a classroom will add to the day-to-day functionality of the space. This will be beneficial to both teachers and students, and allow for the creation of education environments that are inspiring, innovative and fit for 21st century learners.

It is vital that schools future proof their investments by ensuring that the technology anticipates future needs and allows for the integration of additional solutions. Partnering with education technology providers will help BSF consortia overcome the apparent challenges of ICT implementation, and in turn contribute to creating a building that is transformational both architecturally and educationally.

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Promethean

Enquiry 9

Transforming education through Promethean interactive technologies

With a strong track record in capital investment programme projects, Promethean has outstanding credentials when it comes to working with specifiers on interactive solutions for new build



Last year Promethean ActivClassroom solutions were installed in 60% of Building Schools for the Future projects completed and 75% of new build academies opened.

Promethean can support consortia in their ICT provision at every phase, from design to implementation. For more information about implementing Promethean's 21st century interactive technologies into capital investment programme projects,

Visit our website: www.PrometheanWorld.com

Email us at: Capital.Programmes@PrometheanWorld.com

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DOWNE HOSPITAL IN NORTHERN IRELAND WAS ONE OF ONLY FOUR SECONDARY HEALTHCARE BUILDINGS TO WIN AN RIBA AWARD THIS YEAR. TWO OTHERS, ONE A HOSPITAL BY REIACH & HALL, AND THE OTHER A SMALL-ANIMAL HOSPITAL BY ARCHIAL, ARE IN SCOTLAND. ORMS' TEENAGE CANCER TRUST BUILDING IS IN WALES. IS THERE A LESSON HERE?

ertainly the Northern Irish model of healthcare provision seems more conducive to good design. Ronnie Stirling of architect Scott Wilson explained that there is an incentive for the whole team to perform well. Called 'Performance Related Partnerships' it means that if all the participants do well on a project, in terms of delivery and quality, they will get another two related schemes to carry out. 'It means local people get together and try to do the work on a type of negotiated tender,' Stirling said.

Claudia Bloom of Avanti Architects, which has carried out several healthcare projects in Northern Ireland, is full of praise for a system which has an architectural intelligence at its helm. In contrast the unwieldy nature of the PFI process in England is time consuming and often produces less than ideal results.

But despite the coalition's promises to ring fence healthcare provision, nobody expects many more wholesale redevelopments of the health estate to be funded. This may be no bad thing. Bloom says, 'People need to get back to their roots, taking the existing fabric and working in cost-effective buildings. There has been a lot of wiping out, a lot of buildings that didn't need to be lost, a lot money spent and carbon spent that we didn't need to lose.'

She estimates that of our existing building stock, around half could probably be kept and refurbished, with new additions to a campus where needed.

At the same time, we should expect more private providers like Circle to enter the

market. It is the company that commissioned the Bath hospital from Foster and Partners, and now has commissioned another larger one from the same practice in Didsbury. These are hospitals that provide elective surgery, which is surgery that is planned rather than as a result of an emergency. This is the area of healthcare where it is easiest to make plans, and where one would hope to see the most civilised environment. Other practices waiting to design buildings for Circle include Hopkins, which designed the muchlauded Evelina Children's Hospital in London.

It is interesting that such design-led practices are now seeing healthcare as an appealing market. Spencer de Grey, joint design director at Foster, recently said that his ambition was to design a bigger hospital than Bath. Although Didsbury is bigger, one suspects it is not large enough to satisfy that ambition.



ORMS' Skypad in Cardiff for the Teenage Cancer Care Trust Image courtesy of James Brittain

Bloom also has a salutary reminder of why there are so few really good looking hospitals. Typically, she says, the budget for the cladding will only be a quarter of that for an office building. There is not much room to be playful or truly elegant there.

The last few years have seen a chronic shortage in this country of architects with expertise in designing for healthcare. That may be about to change. Not only are workloads likely to shrink, but if we move away from the PFI model then the number of architects needed will fall dramatically. That is because the PFI method involves architects working in every consortium, as well as, typically, for a trust designing the 'public sector comparator' on which the work is tendered. The result is that there are many architects producing work that will, by definition, never be built. If we move to a more rational method of procurement, such double, treble, quadruple or more working will not be needed. It will make life far less frustrating, but it will also reduce requirements for skilled staff.

What then for healthcare architects? However much we may criticise the work of the last decade, it has given practitioners a great deal of experience. British consultants have traditionally been good at exporting their skills, and the last few years have seen great leaps in the globalisation of architectural practice. Some of this is already in healthcare. Devereux, for example, is designing in the Turk & Caicos Islands; BDP has a hospital project in Ukraine. The skills acquired will not be wasted, even if the next few years are tough in the UK.



Schools

By Ruth Slavid

IT SEEMS A LONG TIME SINCE TONY
BLAIR CAME UP WITH THE MANTRA
'EDUCATION, EDUCATION,
EDUCATION'. THE NEW COALITION
HAS EQUALLY STRONG, IF
DIFFERENT, VIEWS ABOUT HOW THE
PROVISION OF EDUCATION SHOULD
DEVELOP. BUT THERE IS A
SUSPICION THAT THIS HAS LITTLE TO
DO WITH THE BUILT ENVIRONMENT.

peaking at the end of May, Ty Goddard, who runs the British Council for Schools Environments, warned 'the political critique is deeply cynical about the connection of the built environment with learning'. Goddard has been critical in the past of Building Schools for the Future, but has applauded its ambition. Now he says 'We have seen a large and welcome investment but the job is not finished. There are vast areas that are still untouched by major investment in infrastructure. We have to explain that investment in schools environments is an investment in teaching, in air quality, in light, acoustics, furniture and the technologies of the future.'



In furniture, for example, he said, 'We are so behind in quality that we need to catch up. Comfort is about readiness to learn. And agile furniture will allow us for example to change a space from a conventional classroom into a space for group work.' The new government seems to believe that teachers can teach anywhere, he said. Designers must convince them that 'A safe and ordered school needs decent well-maintained spaces and equipment. Investing in our schools is one of the best things we can do.'

But even if there is some investment, it is likely to take a different form. At the time of writing, most unlet BSF schemes are on hold. This coalition government has a different vision of education, and that may well mean

schools taking a different shape. For instance Kunskapsskolan, the Swedish company that is running the country's much-touted 'free schools', is now over here. Its first commitment is to build two academies in the London Borough of Richmond. It has a very different attitude to architecture from many of the proponents of BSF.

It does not believe in bold gestures, or accept that the appearance of a school is linked to its status in the community. In Sweden, Kunskapsskolan schools typically have only 500 students, and in an attempt to reproduce that experience here, the company will divide larger schools into a series of houses. There will be no large atria, no fancy shapes and snazzy cladding.





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Many of the Swedish schools are in buildings converted from other uses, and the organisation is happier with the model of an open-plan office or a university faculty than a traditional, teacher-centred school.

With the government's announcement that all schools will be free to apply to become academies, we can expect more conversions and adaptations. And at the same time, there are groups trying to open new schools. For example, in Wandsworth, south London, a group of parents is lobbying to buy the disused Bolingbroke hospital and convert it into a muchneeded secondary school. But while the schools may receive funding to cover the education of each child, it is more difficult to see where the money for capital works will come from.

One newly formed alliance that is ready for this new landscape is the rather unappealingly named 'Nurture Future'. But if it sounds a bit hippy-dippy, it is in fact a hard-headed joint venture between architect James Pickard of Cartwright Pickard and Tarmac Building Products. It proposes an approach of prefabricated construction, using panels and, crucially, the TermoDeck hollow-core slabs for which Tarmac has the UK licence. Termodeck is a product whose virtues have been appreciated for several years, but the licence fee has only recently been cut sharply, making it far more affordable.

The idea is that these schools (or school extensions) will provide excellent thermal performance, with the passive thermal effects of exposed soffits enhanced by the pre-cooling or pre-heating that can be provided by passing, or forcing, air through the TermoDeck. Services can also pass through the TermoDeck, doing away with the need for raised floors or suspended ceilings. This provides not only a saving in additional materials, but also a reduction in the floor to floor height, and hence a further significant cost saving. Similarly, the precast wall panels will provide stability, reducing the other structural elements —



particularly the steel that will be used in the atrium. And they will not need secondary finishes, but can simply be painted. Detailed cost analyses by Davis Langdon predict that schools built using the system will cost well under $\mathfrak{L}2,000$ per square metre.

Pickard is the architect of the system, and will of course be willing to take on commissions. But the idea is that this is a system not a finished design, and that clients will be able to work with their own architects. But in precast concrete, economy comes from repetition. Making new moulds, or cutting down elements is expensive. For a client planning several schools, it might be possible to create bespoke elements that are then used in all the schools. A client for a single building, and particularly for a single extension (and we are likely to see far more

fragmentation of clients) will not have this luxury. To achieve the cost savings they will have to accept a largely off-the-peg solution in terms of the dimension of elements.

There is an irony that the government is seeking greater diversity in the way that education is delivered. But if those new providers are to make affordable changes to their estates, they may have to accept far greater uniformity of construction approach than in the heady, and fast-vanishing, days of BSF.





Schools, colleges & universities

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he odour issue is down to the presence of volatile organic compounds or VOCs. These are organic chemical compounds that have a high enough vapour pressure under normal conditions to vaporise and enter the atmosphere where they are breathed in. Although the most common VOC is the socalled greenhouse gas methane that occurs widely in the natural environment, it is formaldehyde that is encountered most frequently indoors where it is emitted by a host of building materials, including paints, adhesives, wall-boards and ceiling tiles. The office environment is fairly awash with it, including furnishings, wall coverings and equipment such as photocopiers.

It is estimated that up to one person in three will develop an allergy at some point in their lives. Asthma alone currently affects some five million people in the UK. Almost 13 million work days are lost annually as people are forced to take time off and the NHS bill for treating asthma is almost £900 million per year.

With these statistics as a background the use of paint in public spaces is a cause of concern to both contractors and their clients. Every effort must be made to ensure that the materials used do not increase the risk for asthma and allergy sufferers.

Leading the way in the study of the effects of VOCs in paint is the Norwegian Asthma and $\,$

Allergy Association (NAAF) whose health requirements are stricter than the more familiar eco-marks carried by products, such as the swan logo or the EU-wide flower logo. But a product can be fully justified in carrying these and still emit VOCs as these labels do not place any requirements on the amount of vapour permitted during the drying process.

A number of products are approved by the Swedish Asthma and Allergy Association but in these cases vapour emissions are only assessed four weeks after application. NAAF assesses vapour emissions from the moment of application.

"NAAF identified a disparity between the health-promoting claims manufacturers were making and what consumers actually wanted to know to prevent negative impacts on their health. This is why we created the NAAF mark scheme," says the organisation. "All manufacturers wishing to display the NAAF mark must have fulfilled the criteria for the



swan label and the European flower logo. This means the NAAF mark is one of strictest eco-labelling schemes in the world."

There is only one paint product which has been judged to meet the ultra-strict requirements to carry the NAAF label and that is the Sens Interior Paint Range developed by Jotun. Sens achieved this unique position by ensuring that the raw materials used in the paint manufacture are especially clean at source and then undergo additional cleansing during the production process. Unlike other proprietary paints on the market Sens evaporates mainly water into the atmosphere. It is also completely formaldehyde and formaldehyde-production free. Water is the only solvent used in the paint resulting in negligible odour during application and drying.

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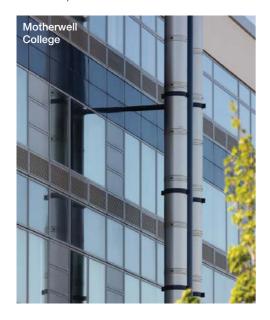
Fresh air and an optimal temperature for

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STUFFY CLASSROOMS THAT FEEL MORE LIKE SAUNAS IN SUMMER; DRY EYES AND THROATS: TEACHERS WITH HEADACHES: CHILDREN WHO FALL ASLEEP IN THE AFTERNOON AND PERFORM BADLY. THESE ARE COMMON SITUATIONS IN SCHOOLS AND COLLEGES. BUT WE WOULD NOT ACCEPT THIS AT HOME OR IN THE OFFICE.

he air indoors is polluted by the occupants, by building products and the interior. With the increasing trend towards airtight construction, humidity, CO2 and various substances stay inside the home. The quality of the air we breathe, has a direct effect on our health.

Young children specifically are very sensitive to this because they are still developing. Healthy fresh air creates a learning environment that increases the students' concentration and results in a better performance. When fresh air is supplied at a rate of 8 l/s per person, the carbon dioxide concentration will generally remain below 1000 ppm. Therefore the regulations indicate teaching and learning spaces should have the capability of achieving 8 l/s per person at any occupied time. One can open doors and windows. However, this leads to a serious waste of energy, allows infiltration of insects and there is the increased risk of burglary. Continuous and controlled ventilation is the only effective and secure solution. Next to a good air quality, a comfortable temperature is of vital importance in classrooms.



By combining ventilation and solar shading, RENSON® is providing energy-saving solutions and concepts for a healthy and comfortable indoor climate in these schools and colleges. They are based on continuous and controlled basic ventilation, nightcooling and/or external solar shading.

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This is the concept of natural airflow overnight to cool down a building and its air content. In this way, an optimal thermal comfort is achieved with minimal energy consumption in summertime. The airflow necessary for this nightcooling is 10 times higher than the level of airflow needed for basic ventilation. Therefore RENSON® developed special louvres with high airflow, such as the surface mounted louvre type 432. Behind these louvres there are windows which can be opened overnight. These louvres can be fixed can be fixed temporarily or permanently.

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The RENSON® project team works together with architects, consultants and contractors





to offer solutions designed to the specific requirements of every single application.

Our project team has also been developing solutions for schools and colleges in UK: Excelsior Academy (ventilation), St. Edmunds School Dover (solar shading), Madejski Academy Reading (acoustic ventilation), Harris Academy South Norwood (aesthetical solutions) and Motherwell College (thermal solution).

For the Motherwell College campus, the architect (Building Product Design), the contractor (Miller Construction) and the consultant specialist (Faber Maunsell) were looking for a ventilation solution that met both the airflow requirements and the demanding acoustic specifications. Further, the system had to be integrated into a largely predetermined façade design. The integrated ventilation system combines thermally enhanced RENSON louvres type 414 TH, insulated aluminium trays and high level motorised controllable RENSON SONOVENT® acoustic ventilation boxes. This combination offers the required performance in ventilation, acoustics and thermal insulation.

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Enquiry 17





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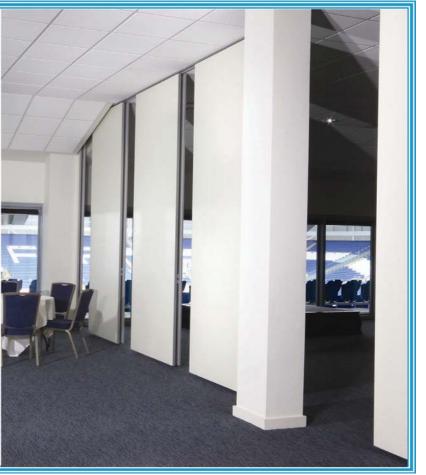
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Setting the standard for Sports Surfacing

Tarkett's range of indoor sports flooring solutions are available in wood, PVC and linoleum. Suitable for multipurpose, multisport and specialist sport applications, they comply with all sports surfacing Standards, including EN14904. For a limited time, Tarkett is offering a FREE bag of high quality footballs to every school that installs a Tarkett Sports flooring solution over 200m2. Tarkett's Omnisports range offers PVC sports floorings that deform

at the point of impact. Developed in three qualities, Omnisport Excel, Omnisport Reference and Omnisport Speed, the composition of each surface is identical, with a choice of several thicknesses to satisfy varying degrees of shock absorption and performance requirements.



enquiry 20

Changing lives at school

Providing quality washroom facilities that meet the needs of every pupil in the school, Sandelford Special School in Coleraine, Northern Ireland, has chosen the unique track system from **Pressalit Care** for its new suite of hygiene rooms. The new facilities allow pupils and their carers the utmost



flexibility. The Pressalit Care washbasins, toilets and showers are all height adjustable while the wall fitted track system means the washbasins can be moved horizontally to create additional space and manoeuvrability for wheelchair users and their carers.

enquiry 21

The sustainable option at Reading University



Sustainability was a particular focus when it came to selecting coatings for the project, within the University. The project partners also sought to work with an organisation that would support and enhance its environmental practices and help lower the scheme's carbon footprint. Manufacturers were challenged to programme's sustainability objectives, ICI Paints AkzoNobel rose to the challenge, and as a result, **Dulux Trade** was chosen paint the preferred brand. Dulux Trade was selected for the project, as it was able to provide sustainable ways to dispose of the paint used, which supported the contractor's management waste recycling objectives.

enquiry 22



Cool solution for Kent College

Levolux has helped find a custom shading solution at North West Kent College's Gravesend Campus. The custom solution provided by Levolux, comprises of automated, rotating perforated Energy Screens, fixed Aerofoil Fins, Matrix XL screening louvres, High Performance Ventilation Louvres and Ventilation Louvre panels with integral motorised dampers. These all combine to help create an energy efficient, naturally lit and comfortable learning environment, which has an impressive, modern aesthetic. One of the most distinctive features of Block R is the row of 46 perforated aluminium Energy Screens, installed vertically across the south facing glazed facade.

enquiry 23

Top performer in schools

An increasing number of schools and colleges are choosing to install Fireco's Dorgard wireless fire door retainers, because they offer the simplest, most cost-effective way of legally holding open often heavy and cumbersome fire doors safely in any position, automatically releasing them should the fire alarm sound. Dorgard is an excellent solution as it can be fitted in minutes with no wiring required, offering significant cost advantages and avoiding any disruption to the premises.

enquiry 25





Cost **effective**

Newcastle under Lyme School were initially considering replacing their existing swimming pool with a brand new pool, at a considerable cost of £1.5m. that is until **ARDEX** presented a far more economical refurbishment solution, which reduced the overall spend enormously! The wall surfaces of the pool were rendered with ARDEX AM 100 fast track one coat tiling render enabling tiles to be fixed just 2 hours after application. An application of ARDEX S 21 bedding mortar was used to create falls in the changing rooms and to pre-level the pool base prior to tiling. To fix the slip resistant ceramic tiles to the pool deck and suitable for internal, external and immersed locations. ARDEX-FLEX 5001 grey flexible tile adhesive was specified.

enquiry 26

Making the grade at University

Royal Holloway, University of London, contracted **TORMAX**TM to manufacture & install over twenty automatic entrances to new buildings, as well as to retro-fit existing doors with appropriate automatic operators. Cutting-edge iMotion® technology combines a high torque synchronous motor with sophisticated sensors and a ground-breaking control system that minimises energy consumption whilst cutting heat lost from the building by precisely matching door opening speed with pedestrian flow.

enquiry 24



A class apart

The new £26m, Chessington Community College scheme is now open for learning and students are able to give full attention to their studies thanks to the installation of **Hunter Douglas** EL80ASK motorised Venetian Blinds. The Somfy Animeo technology includes a roof top weather station to track the suns movement and, reacting to changing light levels, adjust blinds accordingly. Hunter Douglas External Venetian Blinds can enhance natural daylighting, reduce glare and regulate thermal gain to ensure comfort and

increased productivity. The blinds tilt angle can be regulated to keep direct sunlight out and let natural daylight in, thus creating complete user flexibility. User benefits result in improved daylight distribution, a reduction in glare on screens and workspaces and reduced pollution due to energy saving.









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INNOVATION BUILT ON EXPERIENCE

WE LOOK AFTER THE FUTURE OUTSIDE

SO YOU CAN LOOK AFTER THE FUTURE INSIDE



Maibec has a 50 year warranty against wood decay, so your schools cladding won't need replacing until at least 2059. So you can concentrate on the teaching while we look after the building.

MAIBEC

- Warranted for 50 years against wood decay, and 18 years on stain extendable for another 15 years.
- Aesthetic beauty of wood with a preserved, pre-finished look.
- Reduced risk of cracks and deterioration by sealing and stabilising the timber.
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- Low maintenance pre-finished product reduces the need for hand application of coatings.
- · Cost saving through life of building

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- Warranted for 30 years from the time of treatment and covers protection against rot and decay.
- Distinctive wood provides character through its contrasting textures and tones.
- Its natural beauty enhances any project like no other cladding.
- Sustainability wood is a renewable resource: an environmental choice in exterior claddings.
- Durable wood has time tested durability, having withstood the harshest climates.











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Full marks for lightweight roof solution

Building designers looking for an easy-to-install, cost effective insulation solution for lightweight roofs have a tailor-made product to turn to: ROOFMATE LG-A from **Dow Building Solutions**. The product is designed for buildings where limited roof top access is expected and can also be used alongside Dow's ROOFMATE SL-A boards as an insulation solution for

parapets. ROOFMATE LG-A comes with a 10mm modified concrete topping to minimise cost and installation time, making it ideal for projects where time is of the essence, such as schools trying to schedule building work around term times.



enquiry 31

Protect your Investments

Having been in business since 1990, **Canopies UK** is a leading manufacturer of canopy protection systems to schools and nurseries. Their unique cantilever system means every canopy is completely self supportive, giving more space and no posts for the children to bump into. This means they can be in areas not previously thought suitable to put a canopy. There has in recent years



been an emphasis on encouraging outdoor play with OFSTED playing a major role. All the products are made from G.R.P incredibly strong, making them vandal resistant and maintenance free. The company offers nationwide a free no obligation surveying service nationwide to ascertain your requirements and be able to provide an accurate costing.

enquiry 32

Heating units at student housing



MHS Boilers has supplied 155 district heating Nexus units to a new student accommodation development at Tottenham Hale.The Nexus units are bespoke variants of standard IS & Monotherm from MHS Boilers & are connected to the development's onsite combined heat and power (CHP) plant. There are four different types of Nexus at the building, a mixture of heating and hot water units as well as hot water only units for the laundry areas. The heating & hot water units surface-mounted direct models but have higher than standard outputs up to 75kW. enquiry 33



Floor fit for future generations

Milliken Contract's Premium Cut Pile Fusion Bonded Cut Pile and Performance Loop Pile carpet tile collections have been a major part of achieving an interior scheme fitting of Cambridge state-of-the-art public library. Throughout the main areas of the library, Milliken Contract's Premium Cut Pile Fusion Bonded Modular Carpet collection provided the necessary combination of performance and style with striking colours in the Vise Versa design. To create a flow through all three floors, Cool Dude Blue was chosen as the base colourway, while inserts of tones such as Sassy Pink, Acid Jazz and Azure provided distinction between areas.

enquiry 34

Cricket charity bowled over

Pioneering charity Cricket for Change has installed CopriSystems sports dome at its site in Surrey. The custom designed building is being used to house a new state of the art indoor cricket school. Measuring 36m long, 10m wide and 7.2m high, the structure is fitted with two lane nets at 30m+, weave on Top Mat Surface (ECB Recommended) and excellent lighting. The surface is similar to that used at Lord's Indoor School, offering bounce for quick bowlers and excellent grip for spinners. The nets can also be pulled back and the building used as an open plan sports area.







Partition solutions for schools

Marley Eternit has launched 'Partition Solutions for Schools' comprehensive new guide that illustrates the benefits of Hydropanel -Marley Eternit's high performance cement partition board. The guide provides details on all criteria for partition requirements found in schools, colleges and universities. It offers a series of standardised specifications that allow designers on schools projects to comply with Approved Document B (Fire Safety Vol 2), Approved Document E (Resistance to the Passage of Sound) and Approved Document G (Hygiene).

enquiry 37

Meeting wheelchair access needs

A recently-completed sixth-form block at The Oldershaw School on The Wirral has benefited greatly from the installation of a Concerto GS public access wheelchair lift. Supplied and installed by **Terry Lifts**, the vertical



access platform lift has helped ensure the school meets all the requirements of the Disability Discrimination Act. With its flexible, modular design, the Concerto GS lift was installed easily within an existing staircase of the building. Glass in-fill panels on all sides of the lift not only make it less obtrusive. The panels also ensured that natural light could reach the lift carriage itself, as well as the surrounding staircase and landing areas. enquiry 35

Designed manufactured and erected

Buchan Concrete designed, manufactured & erected the precast concrete structural components for the new John Perryn Primary School. The construction of new school building replaces the Victorian school that was partly demolished to release space for the new school to be built with minimum disruption to the schools curriculum & without the need for

additional, temporary accommodation. Piling for the project was carried out by parent company Roger Bullivant. A total of 479 units were erected by Buchan's own erection team at a total of 16 no. units per day during the erection period with a reduction of one week on the contract programme.

enquiry 38





WHAT IS GOING ON WITH HOUSING? THIS COUNTRY IS IN GENERAL STILL VERY SHORT OF APPROPRIATE, AFFORDABLE, HIGH-PERFORMING HOUSING. IT IS, THOUGH, SALUTARY TO REMEMBER THAT THERE ARE LOCAL AUTHORITIES THAT HAVE, OVER SEVERAL YEARS, HAD MORATORIUMS ON THE PROVISION OF NEW HOUSING BECAUSE THEY SUFFER FROM OVER-SUPPLY.

But in general terms we do not have enough housing; we do not have the right housing; we do not have the housing we need in the right places; and the housing that we have has a lamentable environmental performance.

On the other hand, we have plenty of targets. All new housing is to be zero-carbon by 2016. If we are to achieve this we will need to make progress at a rate not experienced by any of the more forward-thinking countries.

For years we have known about the mismatch between supply and demand, bemoaned it and watched it get worse. And then came the credit crunch, with its enormous slump in confidence, and new housing provision virtually ground to a halt.

The Homes and Communities Agency had some impact with its Kickstart programme,

even if it was criticised in terms of quality. Now the government, in its first and apparently gentlest round of cuts, has taken a big slice out of that. It remains to be seen exactly how much impact that will have.

Several decades ago social and private housing could be treated as two entirely separate creatures. Those were the days when much social housing provision was in large, sub-Corbusian blocks, and private housing was all rows of semis in culs-desacs. That is a gross exaggeration, but there were distinct approaches.

Now the buzzword is 'tenure neutral', the idea that from the outside it should not be possible to tell whether a house is privately owned, social housing for rent, or one of those intermediate forms, such as key-worker housing or shared ownership. It is an approach being used for example at Park Hill in Sheffield, the megastructure cum landmark

that Hawkins\Brown is reconfiguring for Urban Splash.

It is also a term that Andrew Ogorzalek of PCKO uses to describe the housing that his practice is designing for Hackney Council in north London. The practice has also recently won a contract to design rental housing directly for Ealing Council. These direct relationships are a return to a way of working that seemed to have vanished several decades ago.

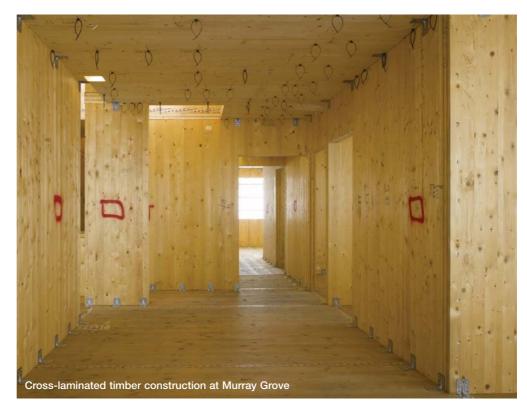
If that were not retro enough, the council is also demanding that the housing is designed to the old Parker Morris space standards, plus 10 per cent – a more generous allocation than is required by the London Plan. The private element, however, is only to the space standards in the London Plan.

The projects, one of 30 homes and the other of 50, are being built fast, a stipulation of the HCA funding.

And the practice is bidding for more in the same area – a competition for Alexandra National Housing, facing Finsbury Park. This will recreate the typology of large villas, with flats in blocks five to six storeys high. 'We are trying to go back to high-density low-rise, trying to see how we can accommodate family living,' Ogorzalek explained. The solution, he believes, is to provide outside space on roofs and terraces, rather than in private gardens at ground level, which are often both overshadowed and overlooked.

For Ogorzalek, issues of sustainability and servicing are key to many of the opportunities and problems with contemporary housing design. Sustainability means the shared services that come with, for example, district heating. But it is the seemingly harmless issue of recycling that is his bugbear. Suddenly instead of one bin, everybody has three. Where do you place these bins so that they do not entirely dominate the frontages of buildings? 'We are trying to incorporate bike storage and refuse rather than having them all in stores which ruin the feel of the city,' Ogorzalek said. 'People are crucifying the quality of life'. This issue is made worse, he argues, by the fact that all access roads have to accommodate the turning circle of bin lorries. It is an interesting angle, the thought that the comfort and efficiency of refuse collectors could have such an impact on the way our cities behave.

There were different environmental issues that determined the effectiveness of Stadthaus, the nine-storey building of cross-laminated timber that Waugh Thistleton built in Murray Grove, east London. With a



building on a tight site, with nowhere to place renewables, one of the key arguments the architect used for employing its novel construction technique was that the carbon locked up in the timber could be used to offset the requirement for renewables. The planners accepted this, and the client then enjoyed the additional advantage of incredibly fast and accurate construction.

Since completing this project, which Andrew Waugh bullishly describes as the tallest timber housing in the world (he has not yet been contradicted), the practice has been looking

for similar opportunities. As so often these look to be coming from abroad. It has won a place in a competition organised in France for innovative social housing provision. The proposal is based on Murray Grove, and housing providers will be encourage to take up this or one of the alternative proposals.

We may not know exactly what is happening with our housing provision, but there are plenty of good ideas around. Squeezed between the need for better environmental performance and the need to save money, we may finally be entering a period of innovation.







Independent Living from Hafele

HAFELE HAVE INTRODUCED VARIOUS SYSTEMS TO HELP IMPROVE INDEPENDENT LIVING THROUGHOUT CARE/RESIDENTIAL HOMES, EDUCATION FACILITIES, SHELTERED HOUSING, REHABILITATION CENTRES AND VARIOUS OTHER PROJECTS.

he 'Basic' range introduced is an economical occasional adjustment system ideal for residential homes or larger projects using a jack system allowing a 3rd party to alter the height of up to a 3m worktop over a 30cm range and wall cabinets over a 25cm range vertically.

The 'Manual' range for infrequent use by a 3rd party raises and lowers up to a 3m worktop by 30cm by means of a removable handle into the facia plate underneath the worktop.

The 'Electric' range for frequent use allows the user to press a control switch altering the height of the worktop over a 30cm range and wall cabinets can be adjusted over a 30cm range vertically, ideal for private homes, schools, training kitchens and sheltered housing. The 'Diagonal' range is also electric allowing the wall units to be lowered by 43cm and altered 18cm forward,



ideal for private homes, sheltered housing, schools and rehabilitation centres.

All the electrical wall unit options are able to have a safety stop plate installed to prevent trapping when lowering, with the option to include lighting helping improve visibility.

For the full range of Hafele products please contact the sales department on 01788 542020 or alternatively visit our website www.hafele.co.uk.

Hafele **Enquiry 39**

Sustainable Structural Repairs

Specially developed concealed installation techniques enable Helifix products, individually or in combination, to restore structural integrity to all types of buildings. By retaining the current brick or stonework, disruptive and expensive taking down and rebuilding is avoided and the building keeps its original appearance.



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Helifix rapid cost-effective repairs help Local Authorities and Housing Associations to achieve sustainability targets by ensuring the social housing stock is structurally sound and meets Decent Homes standards. The life of upgraded properties is greatly extended with significant benefits in terms of time and cost savings, aesthetic appearance and minimal disturbance to both the structural fabric and buildings' occupants.

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Social Housing Naturally Healthier

Natural Building Technologies' (NBT) Diffutherm and Pavatherm Plus wood fibre insulation boards, used to insulate the external walls of timber

frame homes in a mixed social housing development in Dundee, are delivering the twin benefits of lower energy usage and a healthy living environment for the homes' residents. Equally impressive is the fact that the build cost for these properties was just £1,142/m². Specified by architects, Wellwood Leslie, for Abertay Housing Association, which owns and manages the development, the Diffutherm Pavatherm Plus insulation boards were selected for their ability to deliver ultra high levels of thermal performance.



enquiry 41

For highly flexible heating throughout the day

Creda's SFHA Sensair automatic heaters, which combine electric storage heating, direct acting heating and fanned heat, provide an excellent solution on the strength of their flexibility and performance. These heaters can be operated on virtually any tariff, although they must be connected to both an off-peak and 24 hour electrical supply, to take full advantage of extended or split tariffs. By incorporating two and a half times the insulation levels of conventional storage heaters, the SFHA models retain more useful heat for later in the day than their conventional competitors. There are two models in



Creda's SFHA Sensair range. The SFH18AW has a storage rating of 2.5kW and a direct acting rating of 1.5kW. Its seven hour charge acceptance is 17.6kWh. The more powerful SFH24AW has a storage rating of 3.4kW but the same 1.5kW direct acting rating.

enquiry 42

Social housing benefits



Ruston Way in Lincoln is a development of 227 dwellings for Derwent Living, built by Westleigh Developments. Built on a former industrial site lying in a flood plain, the development benefits from a permeable pavement system using Brett Landscaping's Omega Flow for areas of road, car parks and walkways. Omega Flow allows water to pass through into the sub-base to be stored before being released slowly. The use of a permeable paving system also helps to improve water quality by trapping and retaining surface water pollutants in the sub-base preventing them from entering the watercourse.

enquiry 43



Safe, renewable central heating system

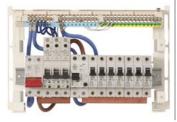
The **Space Air** Daikin Altherma air to water heat pump system has been designed and manufactured to simply replace the conventional fossil fuel boiler. It is a compact, highly efficient, low maintenance means of providing safe (low temperature, no scolding and no carbon monoxide poisoning) heating and/or hot water from the same system. Daikin Altherma is user friendly, offering around 30-75% savings in energy consumption and reduction in CO2 emissions. Space Air supplies the complete Daikin Altherma system including all necessary components, pre-assembled to reduce on-site labour and disruption as well as ensuring that the perfect installation.

enquiry 44

Skeleton design moves into the 21st century

MK Electric has developed the Sentry range of skeleton units to bring 21st century safety standards and design to social housing. Skeleton boards are spine backplate assemblies that fit within a Mantel or Clifton type enclosure essentially a kind of metal 'utilities' cupboard, that may also contain the meter. The Sentry Skeleton range counters all the problems associated with skeleton boards, which are rarely used in new-build and only installed as part of refurbishment programmes, to offer a modern and easily installed unit that meets the highest safety regulations.

enquiry 46





Sustainable & safe

Housing provider Gentoo is incorporating Kidde Fyrnetics' smoke, heat & carbon monoxide alarms using the Smart Interconnect facility, as an integral part of its PassivHaus development. Kidde's Smart Interconnect means that when a smoke or heat alarm is triggered by a fire, all the interconnected alarms, including CO alarms, activate to alert occupants of danger. When a CO alarm is triggered by carbon monoxide, all the interconnected CO alarms activate. It is important to have different, distinct alarm sounder patterns for carbon monoxide & fire, preferably supported by different digital display messages. All the alarms are hard-wired as an integral part of the electrical design.

enquiry 47

Maximising door opening widths

Registered social landlords can minimise the need for costly special door-



sets to provide easier access for wheelchair users and the elderly by specifying SFS intec's Dynamic 2D high performance slimline door hinges. With its low profile sashplate, SFS intec's Dynamic 2D hinge allows for residential and commercial entrance doors which span the maximum available opening, even where an internal plaster reveal has the potential to restrict door opening. The hinge is available in a wide range of standard colours, including matt chrome and contemporary grey, and it has been used in door-sets which have passed PAS-024 testing.

enquiry 45

Cost-effective solution

Radflek is a cost-effective solution for refurbishing social housing with uninsulated solid masonry walls. Radflek is a revolutionary radiator reflector made in the UK from a laminated aluminium foil with a simple installation method (suspension from the radiator wall brackets). Radflek is the most

efficient radiator reflector approved by Ofgem for CERT. Radflek's better reduction in CO2, together with a longer CERT lifetime, gives it a CERT rating of up to 85% more than the leading competitor. Radflek can pay for itself in six months.For further information www.radflek.com.

enquiry 48



Coatings and colour with hidden talents

SPECIFICATION MAGAZINE INVESTIGATES THE PAINTS THAT WORK HARDER TO PROTECT BOTH RESIDENTS AND THE ENVIRONMENT, WHILE KEEPING SOCIAL HOUSING PROPERTIES LOOKING SMART AND INVITING.

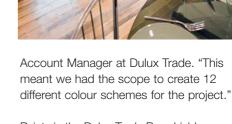
aint is capable of a lot more than we have traditionally given it credit for. Taking time to properly research paint choices results in the use of coatings with real 'in-life benefits' - be this fire protection. reduced energy use or navigational help. And, as the following projects demonstrate, none of this need be at the expense of performance, colour choice or finish. When devising a paint specification, consulting residents at the design stage is an effective way to encourage them to engage with, and take pride in, their surroundings.

Crewe-based housing association, Wulvern, put this theory into practice when it came to redecorate the communal areas at Waverley Court in Cheshire, and called on the experts at Dulux Trade. Together with a neighbourhood co-ordinator from Waverley

Court, they designed an interior scheme that would not only bring a sense of community to the 90 properties, but would also ensure they were all compliant with fire safety regulations.

The brief also called for each corridor and communal area in the ten-floor building to be redecorated with different colours to aid residents' navigation around the building and to ensure that escape routes and communal areas meet with the Disability Discrimination Act and other duty of care regulations.

"We therefore advised that Waverlev Court would benefit from a flame retardant paint system such as Pyroshield, which - in addition to being a high-performance, specialist coating that provides vital extra seconds in a fire - also boasts a vast colour range," says Peter Wilkinson, Specifier



Paints in the Dulux Trade Pyroshield range contain flame retardant substances that react in a fire to take in oxygen and create steam; this cools the heat of the fire and reduces the amount of oxygen available to feed the flame. Whilst Durable Matt can enhance the flame retardant performance of painted surfaces from Class 3 (BS476 part 7) to Class O in just two coats, Pyroshield Basecoat offers a full upgrade over Warrington Blue board (Class 4). In line with the VOC legislation that came into force on 1st January 2010, the Pyroshield range is water-based and therefore low in VOCs.

The sustainability of paint is creeping ever higher up the housing specification agenda, a demand that Dulux Trade has met with the development of Ecosure, the most environmentally-advanced paint from Dulux Trade. ECD Architects put the Ecosure range to the test when it embarked on a mission to refurbish a 1930s three-bedroom terraced house in London while cutting its carbon emissions by 80 per cent. The Dulux Trade Ecosure range was the ideal paint choice and was used in matt on the bedrooms walls and ceilings, and the undercoat and gloss on the woodwork.

The work undertaken by Wulvern and ECD Architects proves that when it comes to paint, specifiers can and should be more demanding when it comes to performance, colour and hidden talents. Our advice is: accept no compromises.

Dulux Trade

Enquiry 49









NIBE Pumps grab energy from thin air

AS OIL AND GAS PRICES ROCKET AND FORECASTS ARE FOR STILL HIGHER PRICES TO COME, MORE AND MORE PLANNERS, DEVELOPERS, BUILDERS AND ESPECIALLY HOUSEHOLDERS SEARCH FOR ALTERNATIVE ENERGY SOURCES. ONE THAT HAS BEEN SURPRISINGLY OVERLOOKED IN THE UK UNTIL RECENTLY IS THE USE OF AIR SOURCE HEAT PUMPS [ASHPS]; A METHOD OF TAKING ENERGY FROM THE OUTSIDE ATMOSPHERE AND CONVERTING IT INTO HOT WATER FOR DOMESTIC USE AND CENTRAL HEATING.

ne of the major suppliers of such Heat Pumps is Nibe Energy Systems Ltd. of Chesterfield and Managing Director Phil Hurley has no doubts about the efficiency of the air/water energy conversion system. "Our pumps are designed and made in Sweden" he says "And they have been very widely used over there literally for decades. If they are effective in a country where the thermometer spends much of its time below zero, why should anybody doubt their worth in our warmer climate?" Why indeed!

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ASHPs have two significant advantages over other alternative energy systems. First, they can be used in virtually any domestic situation and second, installation in new build or retro-fit situations is simple, fast and does not involve massive disruption to house or garden. Geothermal systems require groundwork diggings and a spacious garden, wind turbines need major construction [and of course wind] and solar panels involve expensive rooftop work. Nibe Air/Water Heat Pumps can be simply fitted anywhere outside; adjacent to a house wall, by a boundary fence or even at the bottom of the garden. The units are pleasantly designed with a satin metallic finish, measure

only 1200mm wide by 500mm deep and 1045mm in height [including the adjustable feet] and weigh only around 150 kilos each.

As they can be fitted into even the smallest modern garden the Nibe pumps have proved extremely popular with house builders who can combine the significant selling points of cheap heating and eco-friendly living with the welcome receipt of credits granted under the Government's Code for Sustainable Housing.

The principle under which Nibe's ASHPs work is surprisingly simple. An integral fan in the unit draws in air from the atmosphere, severely compresses it to extract the optimum amount of energy and then harnesses that energy to heat water in a storage tank that can then be used for domestic hot water supply and central heating. The Air/Water Heat Pump is ideally suited to run underfloor heating since it is at its most efficient between 35 and 45 degrees Centigrade but it can also be adapted for use in a radiator system if preferred. In fact the system works in a very similar way to the ordinary domestic



refrigerator except that in this case it is the heated air that is retained and the near freezing air rejected instead of vice versa.

Energy savings using Nibe Fighter Heat Pumps are impressive. They create three kilowatts of energy from every kW of input from the mains electricity on which they operate, and they are confidently claimed to cut fuel costs by around 50% compared with conventional heating methods. That percentage will almost certainly increase further as fossil fuel prices go up while supplies of fresh air will still be free in the foreseeable future.

There are also significant ecological advantages in addition to energy saving for Nibe's low carbon system reduces CO₂ emissions – contributors towards global warming - by 35% or more compared with, say, an old gas boiler. The average UK household is estimated to produce 5 tonnes of carbon every year and nearly three quarters of that is generated from heating so those percentage saving are significant indeed! A householder using a Nibe Fighter Air/Water Heat Pumps can feel doubly satisfied for he is helping to save the Planet at the same time as he saves on fuel bills.

If they are effective in a country where the thermometer spends much of its time below zero, why should anybody doubt their worth in our warmer climate?

It is certainly true that Scandinavia [and Sweden in particular] has many years start on the UK when it comes to the use of alternative energy systems and in particular ASHPs but it is equally true that we are at last catching up. The Swedish technology that has gone into the Nibe Fighter Heat Pump range has proved thoroughly suitable for British needs and the demand for Nibe Air/Water Heating systems is accelerating fast. This demand is coming from all sectors of the market, from the professional builder as well as the private householder and for both new installations and refurbishment work. The advantages of a system that has major ecological as well economic advantages are already proving extremely attractive. The rate of switch to Air/Water heating systems such as Nibe's can only increase as fossil fuel supplies become scarcer, prices rise and legislation for energy efficiency and lower emissions become ever more stringent.

NIBE Enquiry 50



Iron water feature tops off jewel in Brixton's crown

A CIRCULAR IRON WATER FEATURE IS NOW FLOWING IN BRIXTON'S MAJOR PUBLIC SPACES, COMPLETING A MULTI-MILLION-POUND PROJECT TO REDEVELOP THE SOUTH LONDON SUBURB.

he 4.5m-wide water feature at Windrush Square in the London suburb, comprises 26 separate castings made in nodular cast iron and weighs about 5.5 tons.

It is the focal point of the £9.7m Brixton Central Square scheme to unite three wellloved and well-used local landmarks, creating a shining jewel in Brixton's crown. The scheme is one of 100 projects to be taken forward under the Mayor of London's Public Spaces programme, which aimed to create safe, high quality public spaces reflecting London culture.



The landscaping brings together Brixton's Tate Gardens, Windrush Square and St Matthews Peace Gardens and the project included traffic improvements, better pedestrian links, better lighting, design and resurfacing, a new café and space for events and arts.

Designed by Edinburgh architects Gross Max, the water feature is surrounded by an 80sqm area was paved in 160 nodular cast iron paving slabs weighing 100kgs each, making the entire paved area 16 tons in weight alone.

Hargreaves Foundry brought together its specialist team in Halifax to produce the difficult water feature, with its Hargreaves China production team to supply materials for the extensive paving areas. Managed and coordinated at the Halifax workshop, each of the 160 paving slabs was cut to size according to a pattern supplied by the landscape architects and assembled perfectly on site in Brixton.

The pattern equipment took about two weeks to manufacture and it took about three weeks to complete the castings for the 26 segments.

Andrew Knight, Hargreaves Foundry

A 4.3m tree grill was also produced, made of eight separate castings, weighing in total 1.7 tons.

Tel: 01422 330607

Web: www.hargreavesfoundry.co.uk

Hargreaves Foundry

Enquiry 51

30 URBAN REGENERATION

Scoring ahead of 2010 World Cup

Hanson Formpave, in partnership and under licence with leading South African concrete product supplier INCA, has supplied over 2,700m² of its industry leading permeable paving system, AquaflowTM for the regeneration of the Grand Parade in Cape Town. The Parade is to become a Big Screen FanZone for 2010 World Cup. With its ability to deal with extreme volumes of water as well as its environmentally friendly qualities, the Aquaflow permeable

paving was installed using an infiltration system; so that the water is filtered, cleaned – to a pH neutral standard before being released in a controlled manner back into the natural underground streams descending from Table Mountain and then on into Table Bay Harbour.



enquiry 52

Sika releases blooming marvelous catalogue



Landscaping Catalogue



Sika has launched a brand new Landscaping Catalogue that presents in one guide all the products suitable for the growing market sector. The new brochure is an ideal quick reference guide to help find the right product solution. Packed full of advice and help on using Sika's landscaping products, this new piece of literature has colourful, easy to read information with useful illustrations and order information. The full colour catalogue includes the new wood preserver range, surface treatments, Resiblock products and many more.

enquiry 53

The Clyde at Girvan



Greenleaf 'Clyde' Tree Grilles were specified at the recently completed Girvan Community Centre in South Ayrshire. Clyde tree grilles add architectural flair to the paved surface in addition to preventing compaction to the soil within the tree pit. The Clyde design which was supplied in a galvanised finish is very popular due to its simple, minimalistic design. As with all Greenleaf Arborsystem tree arilles, they included provision for a Root Rain Precinct tree irrigation system. This irrigation system features a cast aluminium inlet which locks into the tree grille.

enquiry 54



The number 1 choice

MediaCityUK, Covent Garden, Lincoln, Sheffield, Leeds... just a few of the major regeneration schemes that make Ultrascape possibly the UK's number 1 choice for urban regeneration. The Ultrascape BS 7533 mortar paving system from **Instarmac** is providing fast-track streetscape solutions nationwide. Flowpoint ECO, the innovative flowable rapid-setting grout, is the ideal solution for any large scheme, enabling a simple and easy finish: "Pour on and wash away with no staining" Flowpoint ECO contains 20% recycled glass and is available in 30 tonne silos - equaling a massive 6 tonnes of non-virgin aggregate in one bulk silo.

enquiry 55

Marshalls launch

natural stone portfolio

From the beauty of natural Yorkstone to the style and sophistication of granite and Quartzite. Marshalls natural stone materials offer endless opportunities to bring landscaping to life and now the full range is available through Marshalls new Natural Stone Landscape Product Selector and website. Showcasing the largest range of Yorkstone in the UK, with case studies and visualisations in a variety of different landscapes, the new brochure brings together Marshalls extensive portfolio of natural stone products and offers inspirational and unique design solutions from Marshalls experts.

enquiry 56





Puddle problem solved

A slip resistant, waterproof surface has solved the puddle problem on a footbridge used regularly by schoolchildren in West Sussex. Leading contractor May Gurney approached Gaysha Specialist Surfaces, who has built its reputation on innovative resin paving products, to undertake resurfacing work. They laid 190 square metres of Tripave®, a cost effective, highly durable rapid cure surfacing system with excellent slip and skid resistance. "The resin surface can be expected to have a useful life of at least ten years and up to 25 years in some cases," says lan Elsey, director of Gaysha Specialist Surfaces.

enquiry 57

High profile integrated tables and seating

One of the high profile contracts carried out by Townscape Products Ltd has been to provide integrated tables & seating from its DISCUS range for the new KFC Restaurant at the stadiummk in Milton Keynes, the home of MK Dons football team. The stunning stadiummk, with a 22,000 capacity, opened in 360° features 2007.



panoramic views from the open concourse, a vast Grand Ballroom, 128room four-star hotel & extensive conference facilities. Comfortable & convenient catering for thousands of excited hungry fans on match days was a priority for the MK Dons. The new KFC Restaurant located in the stadium complex was more than able to meet the challenge. However it wanted to install a range of integrated tables & seating for outdoor dining that was convenient, robust, easy to clean and modern in design in keeping with the overall stadium complex. Working with its client, KFC and project contractors, SME Group, Townscape produced a particular specification for its Discus range. The installation features the Discus Picnic set with 2, 3, 4 and 6-seater variations, including units with full wheelchair access. All the units are secured below ground and finished in a polyester, powder-coated colour scheme of the client's choice. The Idigboo hardwood timber tops are finished with several coats of sadolin treatment to enhance their appearance. The standard Discus table has a round top, with the Townscape's unique routed profile, but Townscape also produced square and petal profile tops for this project, demonstrating the firm's bespoke manufacturing capability. Townscape's Discus range has also been supplied on a number of prestigious projects in the retail, education and public space sectors, providing design-driven, cost-effective solutions in high impact environments.





www.enquire.to/spec - ENQUIRY 60

Creating a sense of wellbeing in the built environment

Recent research carried out by nef (the new economics foundation) in collaboration with Marshalls plc, the UK's leading hard landscaping transformation company, has found important links between an individual's wellbeing and the external environment in which they live.



Everyone likes to feel good. However, evidence is mounting that psychological well-being is more than just 'nice to have' but can instead bring real and lasting benefits.

As part of Marshalls commissioned research with nef, a 'Social Space: Impact Map' was produced which suggests how stakeholders may experience a number of different outcomes by utilising public spaces. These include:

- 1. Increased feelings of safety
- 2. Increased feelings of ownership and belonging
- 3. Greater awareness and appreciation of surroundings
- 4. More walking/cycling
- Reduced social isolation
- 6. Increased autonomy
- 7. Reduced frustration/stress
- Increased feeling of control over local decision-making

These indicator sets suggest a policy trend towards statutory guidelines that may in the future affect the way in which organisations such as Marshalls target their products to promote the well-being of end users in public realm spaces. Marshalls' products, which include paving, street furniture and sustainable urban drainage systems can help local authorities promote sustainable development by addressing crime, increasing mobility, improving local environmental quality and increasing satisfaction in the local area.

Find out more by visiting www.marshalls.co.uk





Many social landlords are ready for the digital switchover.
Are you?

It's important that social landlords act now, as residents who don't have access to digital TV after the switchover won't be able to watch TV. As our map shows, many social landlords are ready – but are you? Reassuringly, our dedicated switchover team has developed a programme to get your homes ready in time.

- Our communal solution gives your residents a choice of quality digital TV and DAB radio services – such as Sky, freesat from BBC/ITV and Freeview – as well as access to Sky+ and Sky+HD.
- If you'd like to upgrade the specification of your system, you can include services such as CCTV and alternative satellite providers like Turksat and Arabsat.
- Our team has extensive experience and local knowledge. They can help you
 as much or as little as you want from managing the whole installation to
 dealing with specific elements such as tendering and evaluation of returns.

Act now. Talk to our specialists about getting your homes ready for the switchover.

Call **08442 411 046**

Or visit sky.com/social

www.enquire.to/spec - ENQUIRY 62

get set for digital ▼



Who's ready for the switchover?

Not ready

Ready

Sky's latest industry survey figures show an increase in readiness – however there's still a long way to go to make sure all social landlords are ready for the switchover.

Visit sky.com/social for more information



Believe in better