

The **Professional**

ENGINEER

Issue 83



Cedarwood, Cheshire Northern Design Award - New Build House Winner - Nicolas Tye Architects www.nicolastyearchitects.com

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Presidents Briefing

Dear Colleagues,

As I write these notes I have just returned from representing the Society at a meeting with the Association of British Engineers in Italy (ABEI). The meeting, in Milan, provided the opportunity to prepare and sign an agreement of mutual recognition for the benefit of both the SPE and the ABEI.

These initiatives of collaboration were reflected in a meeting with the Institution of Diagnostic Engineers, a proactive move forward in what I hope will result in many mutually beneficial arrangements both within the UK and overseas taking the Society forward and raising our profile internationally.

The Society is currently working on alterations to the style and format of the journal, to better reflect our focus on Professional Engineering. It is proposed to develop and issue newsletters to further reinforce development of the Society and interact with you, our members.

I trust that you will put forward your constructive opinions on these improvements as they develop. We are seeking to provide activities that offer



greater involvement for our members. The updating and revision of our website is also underway.

These activities reinforce and maintain the standards of our register, which recognises both academic and vocational skills reinforced by individual achievements, and the quality of our multi-disciplinary Society.

I will conclude by offering my personal thanks, and that of Council, to Brian Dixon for the unstinting work he has given to the production of 'The Professional Engineer' over many years. Thank you Brian, your work has been much valued and appreciated by us all.

J. Malcolm Parker P.Eng
President.



The Society is committed to working with the membership and fellow Professional Bodies and a sub-committee made up of Council Members, Antony Wedge, Iain Wright, myself and David Gibson has been charged with the promotion, development and marketing of the Society and its members.

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BREEAM UK New Construction 2014 goes live

The new BREEAM UK New Construction scheme is live for registration. The update follows the most extensive consultation ever carried out for a BREEAM scheme, with wide ranging involvement from BREEAM clients and assessors, and leading professional and trade bodies including the UK Green Building Council, the UK Contractors Group and the Construction Products Association.

Revisions to the scheme include a major change to the energy sections of BREEAM. Rather than Part L of the Building Regulations acting as a single UK-wide baseline for energy demand, primary energy and CO₂ emissions performance measures, national building regulations for Scotland, Wales and Northern Ireland will

be used as individual baselines for each administration.

Other changes include:

- The requirement for a percentage of the energy generated for the building to be from renewable sources has been removed as it is already specifically addressed in building regulations.
- A restructured management category to better align with the building procurement process.
- A new credit for reporting on a project's predicted capital costs.
- Changes to the Transport category including revising bicycle facility requirements.
- An alternative route for meeting the Responsible Sourcing of Materials criteria,

bypassing complex calculation needs. Two new issues in the Waste category to address building adaptability.

- Shell and core buildings are now clearly defined in two parts, each with its own scope-specific assessment criteria.

Commenting on the revised version, Gavin Dunn, Director of BREEAM, said: "The changes for 2014 reflect ten months of a major industry and stakeholder consultation process. These important revisions keep the standard up-to-date and ahead of regulatory changes, technical advances and best practice improvements, helping project teams create better, more sustainable and more robust buildings." Further information on the new scheme can be found at www.breeam.com/2014

ONR consults on Safety Assessment Principles

ONR has today launched a consultation on changes we are proposing to our Safety Assessment Principles, the highest-level internal guidance we provide to our inspectors on assessing nuclear safety. This follows extensive work by inspectors and other parties, and offers site licence holders, non-governmental organisations and other interested parties an opportunity to comment on the changes.

www.onr.org.uk

 Office for Nuclear Regulation

Scottish Government Home Energy Efficiency Programmes for Scotland - New National Scheme Supply Chain

The Scottish Government intends to procure a contract for the delivery of a new national scheme due to go live in 2015, as part of its wider fuel poverty programme. A prior Information Notice of this procurement has been published. The new scheme will be worth at least £16m per year for a minimum of five years and will be centred around the installation of insulation, heating and micro-generation measures in the homes of households who

are deemed to be in fuel poverty (i.e. having to spend more than 10% of their income on fuel bills). The Scottish Government intends to appoint a Scotland-wide Managing Agent for the Scheme who will be responsible for identifying the measures which are suitable for the dwelling, carrying out a technical survey, installing the measures, arranging a post-installation inspection and arranging billing.

www.publiccontractsscotland.gov.uk

SUPPORT YOUR SOCIETY - JOURNAL News, engineering, technologies; Share it with us!

Please forward articles up to 1000 words to: david@tdrg.co.uk (Vice President International)

The global housing stock is projected to grow to 2.2 billion units in 2017

A recent study analysed the world housing industry. It presented historical demand data for 2002, 2007, and 2012, and forecasts for 2017 and 2022 by housing type (single-family, multifamily), world region, and major country. The study also considers market environment factors such as world economic trends, demographics, and housing construction expenditures. Through 2017, more than 80 percent of new housing construction is projected to take place in the Asia/Pacific and Africa/Mideast regions. Developing economies in both regions and above-average population growth in the

Africa/Mideast region will spur demand for new units.

While the Asia/Pacific region will spur the most new housing units, the pace of housing construction is expected to decelerate from that of the 2007-2012 period because of weaker growth in China. Nevertheless, China will still have the world's largest housing stock and is forecast to remain the world's largest market for new housing units through 2017.

While developing regions will be the largest markets for new housing construction through 2017, North America and Western

Europe are expected to have the fastest growth in construction of new units. Many countries in these regions, including the US, Spain, and Italy, are forecast to post double-digit annual increases in new housing construction from depressed 2012 levels. Despite the rapid gains, new housing construction in 2017 in both North America and Western Europe will remain below 2007 levels.

World housing stock projected to reach 2.2 billion units by 2017

Jennifer Winfield Executive Web Marketing at RnR Market Research

Designed for Living & Sustainability



We live in a period of change, much of which is driven by the government and their goals for sustainability within the built environment.

As a company Nicolas Tye Architects are committed to the concept of cohesion within the environment utilising local products and materials wherever possible to support the development of a healthy living and sustainable environment.

Nicolas works closely with his clients to achieve their lifestyle needs through the creation of high class, award winning, functional and responsive buildings. This is reflected in the creation of both Cedarwood and Stockgrove.

Cedarwood is set within a generous mature landscaped plot with views across the open Cheshire countryside, a contemporary rural residence completed to the highest possible specification creating a timeless yet elegant design, which connects with the surrounding landscape.

Nestled deep within the established plot the simple series of refined linear buildings blend seamlessly and capture the innate natural beauty of their setting. Strategically positioned the buildings provide an array of landscaped courtyards each with its own distinct character.

Constructed from the highest quality natural materials the buildings are designed to provide a healthy and sustainable living environment, highly insulated and filled with light. The large panels of recessed glazing which adorn the elevations provide panoramic views across the site whilst creating a series of bright internal living spaces. The glazing itself is highly thermally efficient allowing energy from the sun to enter the building whilst limiting heat loss during winter.

The natural slate roof lines, which float effortlessly over the buildings, provide shelter and protection from the elements. The purity of the roof forms are further enhanced by the use of recessed guttering and concealed downpipes.

Constructed from a rigid steel frame the buildings are clad externally in Western Red Cedar, which has a superior natural durability and resistance to moisture, decay and insect damage. Selected for its warm textured grain and rich colour Cedar has an inherent quality



that has been proven to retain its appearance for several decades. The use of Cedar provides a strong visual connection and roots the buildings within its landscape.

The buildings themselves are highly thermally insulated using sustainable wood-fibre board that not only reduces heat loss but also gives protection from overheating in the summer months. The building construction is highly breathable and vapour permeable protecting the



building fabric and providing a naturally healthy living environment. Heating is provided via underfloor heating linked to a highly efficient gas-condensing boiler. Stockgrove House provided further challenges as it was to be a replacement dwelling within the Greenbelt and situated within an area of Special Landscape Value. The proposal was to create a design that maintained the important features of the

through to the functional layout of the dwelling, and maintaining the mature landscape so it can continue to thrive. The new design steps down with the fall of the site and uses this level change in conjunction with the modularization of the house to create more intimate areas which emphasize and echo the topographical context of the site.

It was proposed to use white render, timber louvres and incorporate elegant glazing systems that responded to the building's surroundings, blurring the division between inside and out, whilst also creating light modernist forms that add to the character and architectural appearance of the proposal.



existing site whilst allowing the residents to integrate with their surroundings, reflecting the topography of the site right

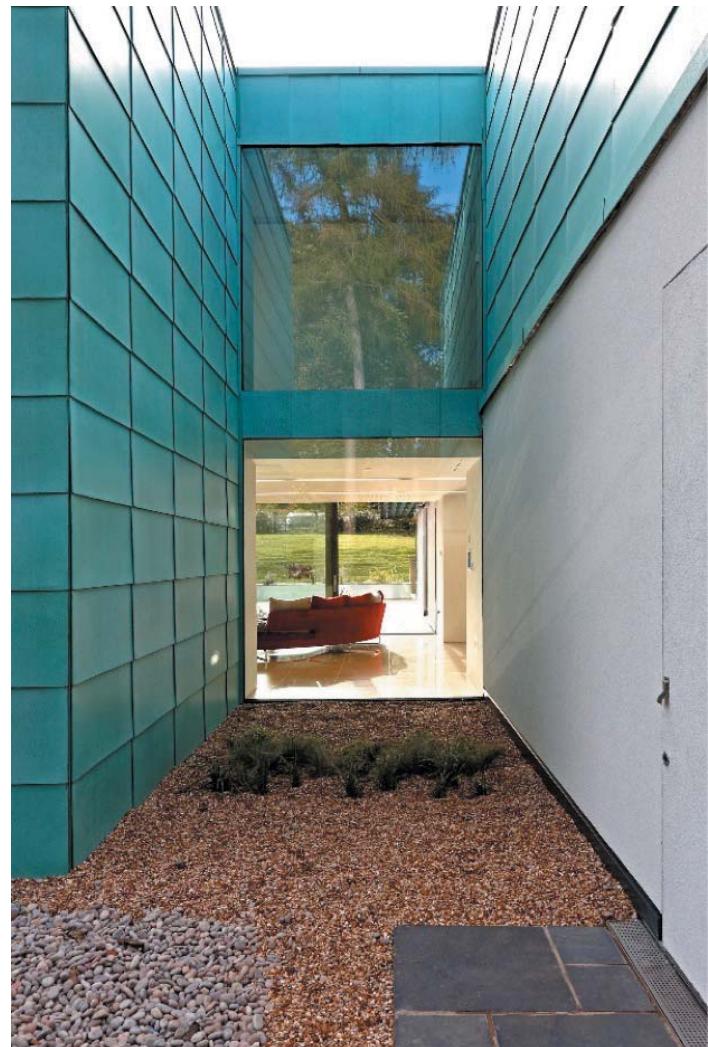
In terms of addressing issues of sustainability, the focus was to utilize locally sourced materials and careful

consideration was given during the selection of construction materials, going as far as possible to use natural paints and stains both internally and externally. In addition, the investigation and integration of heat pumps, rainwater harvesting and grey water recycling systems aided the provision of an energy efficient and environmentally friendly scheme. The resultant building, of high quality design and architecture, forms a fresh modern single dwelling that respects the sensitive nature of the area and brings back a coherent layout integrated with the site while presenting a modern but timeless design concept.

It is essential to recognise that every site and the resultant building is unique and that architecture is about working from first principles and the application of those principles in the achievement of a building that is liveable and sustainable reflecting the aims and objectives of the client.

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Disney World - Safety Engineering for a transient population

Disney World resides within the Reedy Creek Improvement District and receives in excess of 250,000 visitors per day. A dynamic environment providing new adventures and opportunities for the family from babies through to grandparents. This number represents all levels of mobility and ability and the associated risks linked to those human elements. Safety in respect of the day to day activities is managed by Disney World supported by the Reedy Creek Fire

being transient, had limited or zero familiarity with the surroundings. Robert was keen to identify that unlike "other fire services" around the world they were charged with provisions relating to both fire and medical emergencies that also incorporated response to bush fires, smoke control, water emergencies/rescue, underwater search and recovery, disaster medical assistance and the stress factors resulting from the Disney experience and 911 calls.

Reedy Creek Fire Department Services include advanced life support, emergency medical service, fire suppression, fire prevention and code enforcement, training, public education and support of fire control systems. A normal year would see the service experiencing in excess of 25,000 emergency 911



Department that provides a full Fire and Emergency Medical Service.

As part of the Society of Professional Engineers International activities I met with Robert Mitchell,

Fire Chief – Operations [Reedy Creek Emergency Services] to elaborate on the services provided and the way in which safety was engineered to meet the needs of the population. It was interesting to note that out of the average population of 250,000 only some 75 individuals were considered as residents of Reedy Creek. In effect the majority of the population,



calls and the expectation that responses and "rescue personnel" en-route would take place within 45 seconds or less. A real rapid response environment. The Reedy Creek Fire Department has within its employee base the largest percentage of Florida Certified Fire



Inspectors of any community of its size and it should be noted that in its history since its inception in 1968, has never had the loss of a single human life due to structure fire.

It was interesting to note that the Fire Service Headquarter building is somewhat unique as it has been designed utilising "an offset theme" where nothing is centralised and the rooms provide a mixture of shapes and curves avoiding a rigid structural layout. The design also reflected the input from children in response to their perception of a fire station e.g. big blocks, bright colours.

www.rcid.org

David Gibson

Vice President International



MVHR units shouldn't be a tick box exercise

Mechanical ventilation and heat recovery units, more commonly known as MVHR, are increasingly common in the UK, but results can be variable. Lee Jackson, Head of Technical Services at SBS discusses why MVHR is all-too-often seen as a tick box exercise.

MVHR is about creating a controlled and efficient living environment rather than just opening a window to cool down a property or firing up a boiler to heat it up.

However, too regularly MVHR is installed not because of the potential benefits but more as a way of gaining credits towards certain regulations and Code for Sustainable Homes levels, without any real thought given to the functionality or efficiency of the home being created.

The problem is that the industry still assumes ventilation is basically being delivered by a fan on the wall. Now, faced with a technology which cannot just go straight from the shelf into the home, there is a problem in the form of multiple factors, from floor space through to air tightness, and meeting SAP guidelines.

Fans were traditionally fitted on the basis of room size and installers followed basic regulations to decide which room needed a

fan and of what size. But now homes are increasingly sealed-up and insulated, MVHR requires a whole-house approach which means technology cannot just be bolted on.



Glow Worm "Clearly Heat Recovery"

One of the major problems relates to flooring design and the incorrect choice of floor joists.

The preferred approach by many is to use open web flooring joists as they have a diagonal internal structure with a lot of space that is suitable for ducts. However, the reality is that an I-joist will often allow a simpler duct design and therefore result in a more effective and less noisy fan.

This highlights the root of the problem which dominates the MVHR market, namely the lack of communication amongst various parties. Firstly, there is a significant hurdle to cross in getting floor joist designers and MVHR installers talking to each other. This issue is compounded by the fact that MVHR does not have a specific trade which is responsible for it – falling between plumbing and electricians. These trades don't always have access to the building designers in order to influence the design of floor joists. Not only does the industry need to be proactive in making these dialogues take place, but it should be putting forward its own innovative solutions. By calling the SBS Helpline on 0800 688 8388, the team can use your plans to provide a more integrated design solution between the structure and ventilation systems, whilst making sure the solution achieves the correct performance.

For more information on SBS, visit www.tpsbs.co.uk. Alternatively, call SBS on 0800 688 8388 or email sustainablesolutions@travisperkins.co.uk



2013 Conference Rates Held

Annual Conference & Exhibition 2014

Emergence, Evolution & Development

16-17 October 2014

Swindon Marriott Hotel
Pipers Way, Swindon, Wiltshire SN3 1SH

As the construction industry recovers, and the demand for new projects increases, there is a clear need for rapid solutions to meet demand. The way in which we design and construct buildings is changing with innovative materials and significant changes in construction techniques. Set against a background of the most radical change to Regulations, Standards and Guidance for decades the challenges are clear.

Perhaps an even greater challenge is to find the individuals, and businesses, with the necessary skills to move the industry forward. During the recession many experienced professionals left the industry and of those the majority may not return. There is a significant skills shortage and a need to inspire young people to join the industry as well as a continuing need to up-skill and develop those already engaged.

The 2014 conference aims to consider these issues with papers from leading industry figures, informing of change and sharing good practice. Over the past few years the programme for the conference has included a panel debate and this year the debate will focus on business development with fellow professionals sharing experience of growing practices, maintaining a market share and starting up a new business.

Once again we will include our formal Awards Dinner on the evening of the first day, where the first Awards to be given under the name of Chartered Association of Building Engineers will be presented.

Day 1	Day 2
09:00 Registration & Exhibition Opens	09:30 The Future of Standards
09:45 Formal Opening of Conference	10:00 The Principal Designer – a Health & Safety Role
10:00 Keynote Address	10:30 Refreshments
10:45 Changing the Construction Process	11:00 Closing the Performance Gap
11:15 Refreshments & Exhibition	11:30 Closing the Skills Gap
11:45 Delivering a joined-up approach to Design & Construction	12:00 Closing the supply/demand Gap
12:15 Delivering better, faster, stronger'	12:30 President's Closing remarks
12:45 Lunch & Exhibition	
14:00 Responding to innovation	
14:30 How to live in a building – what information do end users need?	
15:00 Refreshments & Exhibition	
15:30 Panel Debate	
16:30 Closing Remarks	

For more information, or to secure your place, visit www.cbuilde.com/conference



Help Shape the Future of Sustainable Construction

Plan now to attend the International Code Council (ICC) 2014 Annual Conference, Group C Public Comment Hearings and Expo, September 28 — October 5 in Fort Lauderdale.

- Your sustainability expertise and opinions count — Join us to help finalize code changes to the 2015 International Green Construction Code (IgCC), by participating in the Group C Public Comment Hearings.

Top-Notch Seminars — Nonstop Networking — Distinguished Keynote Speakers

No other building safety code conference offers more exclusive I-Code resources, tools and educational opportunities under one roof than ICC's Annual Conference.

- Gain up-to-date Code Knowledge — Increase your understanding of the I-Codes while learning and earning CEUs and LUs through in-depth educational sessions.
- Talk shop with peers — Meet and network with building industry professionals from around the world. You'll have plenty of opportunities to make valuable contacts.
- Get the answers you need at the Expo — See new products and talk directly with leading vendors and manufacturers.

Expo — Hospitality events — Early-Bird Discount (Register by Aug. 15 and Save!)

Register now at www.iccsafe.org/pch6

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Attention Manufacturers and Construction Trade Associations
Connect with quality attendees from the building safety and construction industry when you exhibit at or become a sponsor of the 2014 ICC Annual Conference & Expo. For more information, visit www.iccsafe.org/expo

Access our multi-sector toolbox for effectively tackling the affordable housing challenge

Looking for a new challenge in Poverty Reduction, Economic Development, Urban Planning & Housing At a recent training session at the UN World Urban Forum in Medellin Colombia, Harvard and MIT researchers presented a multi-disciplinary toolbox for effectively improving the accessibility of low-income housing. The session discussed the following issues:

- How to lay out human settlements cost-efficiently | Reinhard Goethert



- How to design expandable starter homes | Reinhard Goethert
- How to structure pro-poor housing loan products | Deidre Schmidt
- How to deliver pro-poor housing finance | Deidre Schmidt
- How to develop communities strategically | Matt Nohn
- How to design supporting policies | Matt Nohn

To download the documentation of the training please go to this address:

<https://app.box.com/s/9a3zcs8r4c1mgo60574h>
Matthias N. - Loeb Fellow at Harvard

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email:
enquiries@professionalengineers-uk.org

Boost in microgeneration certification scheme interest is an encouraging sign for renewable heat incentive

Paul Joyner, Managing Director of SBS, part of the Travis Perkins Group, discusses the increased interest in MCS accreditations since the launch of the Renewable Heat Incentive (RHI) in April 2014 and what it could mean for installers. With £2.7 billion of funding available to inspire an anticipated 750,000 installations by 2020, our expectations of the RHI were high – a 37% increase in uptake of MCS applications for certification through our partner NICEIC, is an encouraging sign that our optimism was well-placed. Colleagues from Solfex and other brand suppliers have commented that although a similar boost in product sales hasn't yet become apparent, there has been notable interest from installers who've begun to gather information and form partnerships which will enable them to deliver the required services. The Solfex team are also seeing a number of solar PV companies preparing to enter the heat generation market, whilst they believe sales of biomass boilers will continue to increase followed by



heat pumps and solar thermal panels. Our training partners at PPL Training would agree with this prediction from Solfex; they have seen a 68% increase in solar thermal course bookings from quarter four in 2013 to quarter one in 2014, and a 77% increase in heat pump course bookings within the same time-frame.

However, there's an ongoing problem in terms of training and successful RHI applications. Of the 1,080 domestic RHI applications that were received in the first month of its introduction to the domestic sector, DECC has reported that 4% failed and 5% were rejected. This indicates that there is an on-going challenge to over-come in terms of gaining the skills and knowledge required for an approved application.

I believe that the uptake of MCS accreditations can be largely attributed to the domestic introduction of the RHI; the industry is recognising that this is a great opportunity for installers to maximise their income by adapting their business to cover all aspects of each RHI project – the assessment, the retrofitting of the building fabric, and the installation of the heat pump, biomass, or solar thermal technology. It is the responsibility of industry players, such as the

Travis Perkins Group, to continue providing solutions to aid expectations that the RHI will do for the renewable heating sector what Feed In Tariffs did for solar photovoltaics. Fortunately, the problems around training and successful applications can be solved. There has been growing interest in the MCS mentoring and support offered by 'Easy MCSTM' – this has noticeably increased since April 2014 and supports our belief that contractors and installers do want to take advantage of the RHI, but need additional support to maximise their time and financial investment.

SBS was created in 2010 to provide builders, architects and specifiers with energy efficient and compliant solutions which are applicable for new-build, retrofit and repair and maintenance markets. For more information on SBS, visit www.tpsbs.co.uk.

Alternatively, call SBS on 0800 688 8388 or email helpline@tpsbs.co.uk For further information please contact Rose Kilby or James Sherriff at Willoughby PR on 0121 456 3004 or email travisperkins@wpragency.co.uk



On the web...

Modern Building Services

MBS have launched our new blogs section today with a piece by Karen Fletcher on Carbon Management and Emissions trading. You can read it here: http://modbs.co.uk/news/categoryfront.php?id/393/LATEST_BLOGS.html

Time for renewables to get competitive – are we ready?

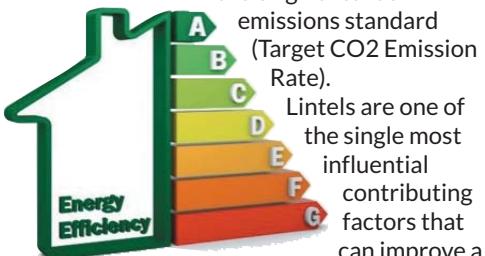
The EU is changing the rules on support for renewables, so it's time to pay attention and make sure you don't miss out as renewable energies are exposed to greater market forces. http://modbs.co.uk/news/categoryfront.php?id/393/LATEST_BLOGS.html#sthash.ao2HO8Sa.dpuf

Carbon is dead?

Measuring carbon is quite complicated, and often very political. Are carbon reduction schemes helping us achieve lower emissions – or confusing the process? http://modbs.co.uk/news/categoryfront.php?id/393/LATEST_BLOGS.html#sthash.ao2HO8Sa.dpuf

The Part L Challenge

The government has finally unveiled its long-awaited changes to Part L of the building regulations. Part L 2013 introduced on 6th April 2014 introduces the Fabric Energy Efficiency standard with the recommendation that new homes should comply with a mandatory minimum fabric performance standard in addition to the original carbon emissions standard (Target CO₂ Emission Rate).



Keystone LINTELS



dwellings SAP calculation and Fabric Energy Efficiency. The new certified Psi value for Lintels in appendix R of the updated regulations is 0.05W/m.k. Keystone's award winning Hi-Therm lintel

is the only one piece lintel that satisfies this requirement.

If standard steel lintel Psi values are used, designers will have to compensate for the performance deficit elsewhere in the design by lowering wall u-values, upgrading windows to triple glazed, or the introduction of costly bolt on renewables such as solar panels, ultimately adding extra costs.

Keystone Lintels UK MD, Derrick McFarland, explains: "Focusing on improving the building fabric with a traditional 300mm masonry construction wall, well insulated cavity and a Keystone Hi-Therm lintel can help meet building regulations and code 4 requirements, negating the need for renewables".

www.thekeystonegroup.co.uk

Home ownership in the UK plummets as renting expands

Over half of UK homes will be rented – with a third rented privately – by the year 2032, it has been predicted.

It will be the first time in 60 years that the majority of homes will not be owner-occupied and by then home ownership will be the preserve of the elderly.

A report by the Intermediary Mortgage Lenders Association [IMLA] forecasts that just 49.2% of households in the UK will own their own homes in 18 years' time.

At peak, in 2003, 71% of households in England were owner occupied. Today the figure is 65%, and the IMLA says the proportion is set to drop.

The report says: "If current trends continue without a major policy or economic shift to address the shortage of new homes, the majority of UK households will be renting in the private and social sectors by 2032 for the first time since the early 1970s."

Private renting has already overtaken the

social sector to stand at 18% of all households, while according to the Department for Communities and Local Government, of the 14.3m home owners in England, the largest number are already aged 65-plus.

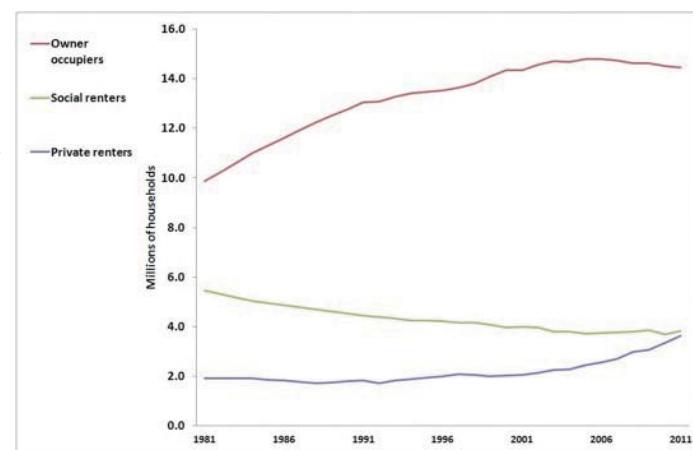
The IMLA report says there are multiple trends driving the rise of private renting, including the fall in social housing; growing obstacles to home ownership; more students; high immigration levels; later marriage; and more relationship breakdowns.

It forecasts that continuing falls in owner occupation and

social renting would also mean more than a third of households renting privately within two decades – twice as many as today.

Daniel Bourke
Belvoir Dunstable

www.belvoirlettings.com/dunstable



Sheffield Hallam University reinforcing Academic and Vocational skills

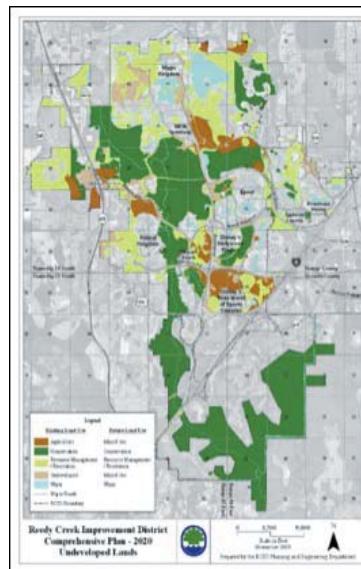
The Department of Natural and Built Environment is one of the largest architectural, planning, construction, surveying and real estate departments in the UK. The commitment to both academic and vocational development is reinforced by their specific staff development programmes based on individual organisational and business needs. This is reflected in their provision for the Kier Group and Barratts. The academic programmes reflecting the development

necessary to meet the challenge for providing effective training and development to meet the skills and expertise requirements for the continued development of those companies. These initiatives reflect the Universities overseas activities and evidenced by the development of research publications where the content reflects the work of the students participating within the academic programmes. Faculty of Development and Society
p.a.watson@shu.ac.uk www.shu.ac.uk



Disney World - Engineering Public Safety

Disney World conjures up expectations, excitement and exhilaration of millions of families throughout the world. These dreams are brought to life when they visit Orlando and Disney World.



The resort sits within the area known as the Reedy Creek Improvement District [RCID]. RCID was created on May 12 1967 as a governing body to manage and oversee the development of 25,000 acres of Central Florida that was considered by the locals to be remote and uninhabitable. This area now consists of four theme parks, two water parks, one sports complex, 167 miles of roadway, 67 miles of waterway, a laboratory for testing water and environment concerns, an electric power-generating facility, a water treatment facility, recycling centre, plus

40,000 hotel rooms and hundreds of shops and restaurants, which have been built on the 38.5 square miles of land that make up the Reedy Creek Improvement District.

The district is governed by a 5-member Board of Supervisors who hold office, for staggered terms of 4 years, who are required to deal with unique issues that are often complex and difficult whilst seeking to represent the diverse cross section of Central Florida. The Supervisors are supported by administration, a Planning Board and a Pollution Control Board. RCID is currently working on a 2020 comprehensive plan to provide the basis for future decisions regarding land use, development, conservation and infrastructure.

RCID in effect is charged with not only the management and development of the area, encompassing all activities within the Disney resort, but also the public safety protocol to ensure full protection of the daily visitors on average 250,000 per day.

Responsibility for this role rests with the district and is delivered by the Building

and Safety Manager Jerry Wooldridge and his team.

As the SPE Vice President International, I had the privilege of meeting with Jerry, at his offices in Orlando, to discuss their approach to public safety and review the developments taking place.

It was interesting to note that in respect of construction and safety Reedy Creek has stand-alone powers and the capability to develop their own building codes and their application.

Jerry was keen to reinforce the fact whilst having this ability it was important to recognise the requirements of the standard building code and the Florida building code which are encompassed and developed within the Epcot Building Codes. This provides 90% plus consistency within Florida.

It must be emphasised that many of the developments within the resorts are unique and therefore require specific performance standards to address and meet the needs of the "expectations, excitement and exhilaration" encompassed within Disney World.

Key areas of concern relating to structural and fire safety are ongoing and recognise the scenario of people being unfamiliar with the resort activities and possibly having to "stand in line" until their turn arrives.

The structural context not only applies to the "resort and individual building design" taking into account the extremes provided by hurricane conditions but also the specific repetitive loadings exhibited within the rides and activities that take place. This was emphasised by Jerry and his comment that "not only is his team



Disney World - Engineering Public Safety (contd)

responsible for the acceptance of design and construction but also the testing of the rides, their location and ongoing 'MOT'". These processes are specialisms, considered and certified by skilled professionals. The problems, if any, occur when we introduce "the public". It is essential that all elements perform appropriately and are capable of taking the throughput of the visitors and their needs. Jerry and his team consider all aspects of the development, however, fire safety is a priority and the ongoing development of new materials, systems and technologies create challenges. These challenges reinforce the need for ongoing research, testing, supported by ongoing training and personal development of the team. The expectations of the public have increased over time and the demands to be entertained are more and more noticeable. Response to these demands has been the creation of "hands on activities" within the waiting areas/queues ranging from activities requiring the "waving of arms" to make images move to "complete child areas" where they can play, climb and slide within an air conditioned environment whilst awaiting their turn on the ride or activity. The provision of these facilities required a detailed analysis of the materials, their surface spread of flame ratings, the heat and smoke generation in the event of a fire and the need for both active and passive fire measures. One particular area exhibited the application of new materials supported by detection, alarm, smoke control and suppression systems. Jerry was keen to emphasise that the fire safety regime both in design and use reflected engineered and managed solutions whereby any indication likely to impact on safety is checked and rechecked before evacuation. A "double knock/triple knock approach". This is an essential process reflecting the numbers of people involved in the use of the parks and their facilities. Society and public demands place all organisations under a microscope and the pressures for development and responses to expectations reinforce a culture of change. This change is reflected in the major development and redevelopment within the Disney parks and in particular Downtown Disney. The change is



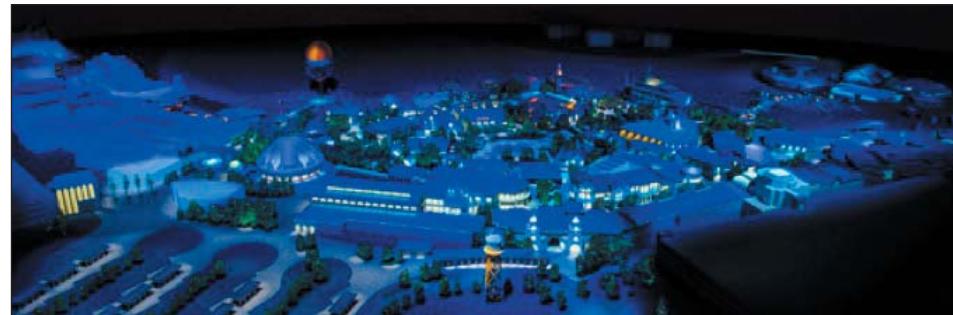
reflected in the provision of multi-storey car parks, retail outlets and the focus on activity. There is a clear recognition that "shopping and eating" is a real leisure activity and very complementary to the activities within the parks. Change and the speed of change has placed great emphasis on the "right first time" approach supported by the introduction and application of BIM - Building Information Modelling [Management] which is now applied to all

developments. This process gives full recognition to the uniqueness of many of the proposals, design and materials, and the integration of high levels of performance, structure, fire safety and service integration. Jerry and his team are committed to a hands on approach where all project data is current and relates to what is under construction on a day to day basis – accuracy and the avoidance of doubt being the priority. Further developments will necessitate the involvement and selection of an appropriate effective integrated development team, design and build, to enhance a rapid construction process and deliver high performance developments. This decade will see the reinforcement and enhancement of the Disney dream and we look forward to updates from Jerry and his team as developments takes place.

www.rcid.org

David Gibson

Vice President International



LAKE BUENA VISTA, Fla., March 12, 2013 – Downtown Disney is undergoing a multi-year transformation, representing the largest expansion in its history. The renamed Disney Springs (as shown in this conceptual model) will double the number of shopping, dining and entertainment experiences, and feature an eclectic and contemporary mix from Disney and other noteworthy brands.

Building Product Search

Building Product Search is the online building product directory brought to you by the people who created the Barbour Compendium.

The site is designed to enable all construction industry professionals to specify building products and manufacturers, by browsing the product categories or using the search engine. With daily updates and regular newsletters we keep our audience informed of new products and applications, plus the latest in green building products and sustainability. Manufacturers and suppliers can have a free listing or for maximum exposure a Premier Profile. To discuss the options available, please call us on 01344 899300. Working alongside

Barbour ABI, the leading provider of construction data and workflow services, we are perfectly placed to keep up to date with industry trends and specifier needs. We also form part of the UBM Built Environment group, and work closely with leading industry titles including Building, BD, Property Week, KBB, Ecobuild, Sleep, Decorex, RESI. Sign up for a newsletter by visiting: www.buildingproductsearch.co.uk

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A fabric first approach can deliver real sustainable homes

The holy grail of sustainable construction, namely reduced thermal conductivity with relatively small and simple changes to construction methods at little or no extra cost is in sight, says Paul Joyner, director of Sustainable Building Solutions at Travis Perkins. The discussion around sustainability has, for too long, been centred on the job that renewable technologies can do in bringing both new build and our ageing housing stock into the low carbon future. However, there is an increasing body of opinion that building fabric and the role that it can play in making homes more sustainable, has been overlooked. I'll go further. My own view is that we need to take a fabric first approach before any renewables are 'bolted' onto a property. A fabric first approach is vital if we are to make a real dent in our carbon reduction targets and getting builders on board is the first step. Fabric first provides a simple solution because, by making just small changes to the products used and the construction methods, it is possible to achieve what too many have wrongly regarded as the holy grail of sustainable construction, namely significantly reduced thermal conductivity with relatively small and simple changes to

construction methods at little or no extra build cost.

Why is a fabric first approach best? Firstly, because the building fabric will always remain in place, require minimal maintenance and offer a life-time of performance. The correct order of procedure should be to get the fabric right first and then maximise the performance of renewable technologies if a choice is made to deploy them. Secondly, buildings should not just be green, but they should be better quality homes. A fabric first approach does both of these things. However, there is also a need for builders and merchants to push the boundaries and aim higher. With a little help and advice most builders should be able to achieve a Code for Sustainable Homes Level 3 house with a fabric first approach. In my experience, a few further tweaks to the type of products specified and Code Level 4 is attainable if builders are given the right advice. My argument is that we need to be aiming higher, by using the right fabric approach plus renewables, all the way to Code Level 6.

The key to fabric first is going to be the merchants. We need to be able to recommend 'best in class' materials to

give the best energy efficiency. We cannot expect builders to understand the technical specifications of each individual product. We, the merchants, need to fill the knowledge gap. Merchants have traditionally just supplied whatever has been asked for over the counter. If we are to achieve more efficient buildings we need to change the dynamic of the merchant builder relationship, in order that we are recommending and advising, not just distributing. With building

regulations changing every 3 years and the efficiency of buildings becoming a higher priority within these changes, achieving the right new-build or retrofit solution at an acceptable cost can be a challenge.

Of course, not all builders have the ability or want to create a Passivhaus, but aiming for Code Level 4 or 5 in all buildings is better than building only a few homes to Passivhaus standards.

For this reason, Sustainable Building Solutions, a division of Travis Perkins plc, set up to provide help, support and expert technical assistance to the construction industry, has produced a set of standard construction drawings for new-build and retrofit with the objective of being an information resource and advice service to customers with the ultimate aim of maximising the fabric's contribution to SAP.

All of the drawings have been completed with the BRE and are LABC-registered. Anyone using these drawings, and crucially all the products specified within the details, will find passing the SAP testing much easier, for three key reasons. Firstly, using these drawings reduces the need to use default SAP figures. Secondly, these drawings make some very simple, but significant, changes to standard build methods which mean the fabric can be used to its maximum capability. Finally, the drawings have been independently tested and verified by BRE, LABC and the HBF.

My view is that if a house is built well and with the right products it will last for hundreds of years. Bolting technology onto an unprepared shell won't make much of a difference. If sustainable buildings are to become a way of life we need to start with fabric first.

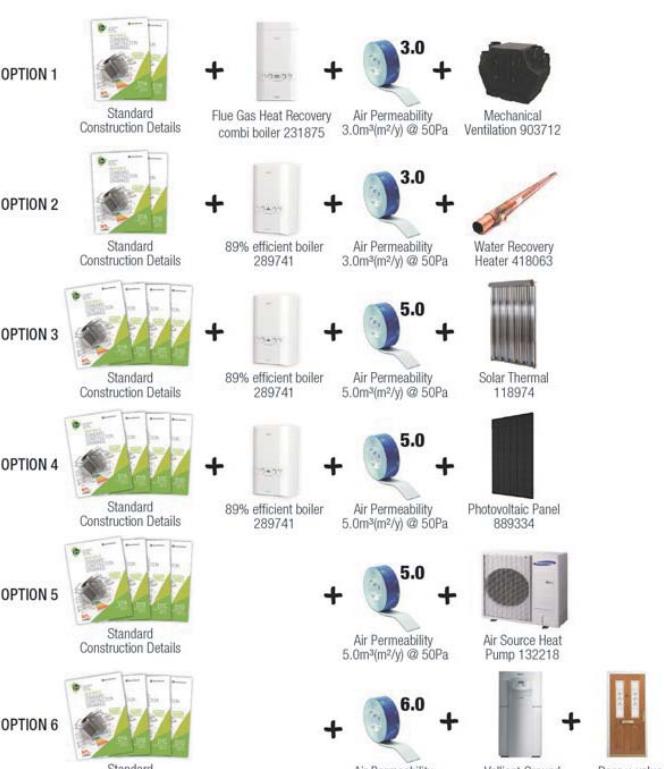
Tom Leatherbarrow or Rose Kilby at Willoughby PR

Tel: 0121 456 3004 E-mail:

travisperkins@willoughby-pr.co.uk

Travis Perkins plc

A major PLC, Travis Perkins is a leading company in the builders' merchant and home improvement markets, and is a main supplier to the building and construction market, one of the largest industries in the UK. The Group turns over in excess of £4.2bn, operates through sixteen businesses with more than 1,850 trading branches, employing around 25,000 colleagues. www.travisperkinsplc.com.



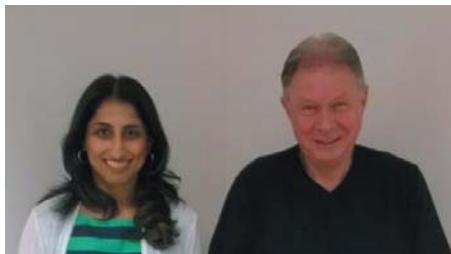
International Standards and Development – Israel 2014



The Royal Institution of Chartered Surveyors is dedicated to the development, promotion, delivery and application of International Standards and support this initiative through their interaction and participation in Governmental initiatives around the globe. This is reflected in their partnership with Ministry of the Interior Israel and the development of their proposals for Building Control. The developments are ongoing and reflected in the delivery of professional expertise, relating to the building control function, within Israel over the past three years.

The delivery of practice and procedures is backed up by a workstudy/shadowing period within the UK. The scheme is supported and delivered under the supervision of Dr Osnat Rosen - Kremer, Director of Building Licensing, Ministry of Interior Planning Administration, through the auspices of Assent Building Control Ltd and Approved Inspector Services Ltd.

The delivery team within Israel, Martin Conlon, Jaspal Virdee-Dhanjal, John Miles, and David Gibson provided a focus on the underlying themes integral to the building control process



The themes related to the;

- Rationale, methodology and procedures proposed within Israel
 - Building Control – UK perspective
 - Professionalism and core competencies
 - Building control, regulations, guidance and technical codes
 - Building pathology, defects analysis and their integration within the building control process
 - Risk assessment, management and sampling within the delivery of building control and achieving compliance
 - Plans assessment and alternative methods of showing and supporting compliance
 - Site inspection and the development of inspection regimes
 - Enforcement and effective delivery
- A dynamic programme delivered to professionals selected from industry

reflecting all aspects of architecture, design, engineering and the environment. The group were superb, prepared to challenge and be challenged, and participated fully in the application of both the rationale and requirements of the regulatory proposals. The delivery was complimented through the integration of two site inspection visits, within the Jerusalem area, in conjunction with Igal Shohet Associate Professor, Ben - Gurion University of the Negev, one residential and one commercial, to reinforce the development and application processes.



The delivery over the two week period prepared the delegates for their visit to the UK and their hands on involvement within the building control process through work shadowing at two locations, in London and one outside of the London area. Development reflected a rigorous process and the face to face delivery and practical work (including the work shadowing) are backed up by the assessment of specific building control tasks and a formal interview.



Then and now

The Poor Law Commissioners report into the sanitary conditions of the labouring population of Great Britain was published in 1842. That report, prepared by the Secretary Edwin Chadwick showed that that population had been ravaged by diseases such as cholera, typhoid, typhus and tuberculosis. These diseases caused premature deaths and the average age of death amongst the labouring classes was 17 in Manchester, 19 in Leeds, 15 in Liverpool, 38 in Rutland, 28 in Truro and 25 in Bath. Amongst the 450 pages of evidence and comment was a proposal that the conditions causing premature deaths could be

addressed by improving the conditions of houses eradicating dampness, poor ventilation, providing proper drainage and sanitation. This could be achieved by regulating the construction of new dwellings. This led to the introduction of Building Byelaws in 1866 eventually Building Regulations in 1966. Local Authorities were somewhat indifferent as to their responsibilities as in 1936 there were 60 Local Authorities without a single building byelaw. Eventually in 1966 a national set of Building Regulations came into being enforceable by all Local Authorities. After some 150 years of some form of

Building Control Public Health England produced a report in June 2013 setting out the mortality rates in England. Amongst the worst were Manchester, Liverpool and Leeds and amongst the lowest were Rutland, Bath and Truro.

So no real change. What appears to have changed are the type of diseases which cause early death such as cancer, smoking related diseases drugs and alcohol abuse.

What does not seem to have changed is living in a rural area and that possibly reflects a lower level of stressful living.

Tony Ley. MBE.BA. MPhil. FRICS, C.Build.E FCABE

RICS Appointment

Martin Conlon, a director from Assent Building Control Ltd, Wakefield office, has been appointed National Chairman of the RICS's Building Control Professional Group. The group is made up of professionals who have an interest in the regulations covering

design and construction of buildings. Martin said he hoped to use his skills and experience to expand the role of the RICS. He said "I am truly honoured and flattered to be appointed to such a prestigious position".

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email:

enquiries@professionalengineers-uk.org

Making Part L simple to achieve

The revised 2013 Building Regulations came into force on 6th April 2014. The Part L 2013 documentation requires new-build homes to generate six per cent less CO₂ across the build mix when compared with 2010, whilst non-domestic new-builds will need to reduce CO₂ emissions by nine per cent. Lee Jackson, Head of Technical Services at SBS, advises how the right support can make the standards simple to achieve.

With each new change in Building Regulations, there are plenty of myths created around how restrictive and difficult to achieve they are. However, with the right technical advice and fabric first principles, it is possible to simply build to the new regulations with standard masonry construction to a total wall thickness of 300mm, with very little new equipment. Over the last two years, the Travis Perkins Group and SBS has invested in a number of tools to help house-builders cost-effectively achieve the level required by the new regulations. The key element is the specified technical drawings for brick and block construction.

To ensure optimum whole-house performance, each drawing is specified using a fabric first approach. Should the builder want to incorporate renewable technologies, there is a simple menu of options to make the



building as efficient as possible, and to cater for specific customer and site requirements. For example, "option 1" takes a fabric first approach, with an overall wall thickness of 300mm, comprising of either 100mm full fill or 50mm partial fill cavity and excluding any renewable technologies. Options are provided for both aggregate and aerated blocks. To ensure this approach achieves the regulations it specifies a flue gas heat recovery boiler, mechanical ventilation and an air tightness rating of 3.0m³/(m²/yr). If the build includes renewables there are a further four options, all based on the same 'fabric first' construction details. For example, "option 5" replaces the boiler and mechanical ventilation from "option 1" with an air source heat pump and a requirement to build to an air tightness rating of 5.0m³/(m²/y).

The construction drawings provide a simple route map for architects and house-builders to work as cost-effectively and efficiently as possible. Each individual product has been specified and positioned to minimise thermal bridging and maximise the contribution of the fabric under SAP2012. The house-builders who have already incorporated them within their own designs have saved money both for themselves - typically around £3,000 per house - and for their customers, through lower running costs. The drawing options are provided using either aerated or aggregate blocks, and insulation options for both 'part fill' and 'full fill' cavities. The ability for house-builders to

switch from aerated to aggregate blocks has provided a real benefit in regions with shortages of aerated blocks.

The construction drawings, made available through SBS, form part of a complete end-to-end solution that has been put in place to support contractors faced with Part L Regulations. The Travis Perkins Group is the only player in the market with leading merchants in each product sector, providing housebuilders with the best technology on offer, backed by access to training and mentoring for a whole-house solution.

To find out how you can take advantage of the freely available construction drawings, call the SBS helpline on 0800 688 8388 or email helpline@tpsbs.co.uk

For further information please contact Rose Kilby or James Sherriff at Willoughby PR on 0121 456 3004 or email travisperkins@wpragency.co.uk

The Travis Perkins Group is the UK's leading company in the builders' merchant and home improvement market, and the UK's largest supplier to the building and construction market.

The Group operates 17 businesses from 1,900 sites across the UK, and employs nearly 24,000 people. With a proud heritage that can be traced back over 200 years, our employees are continuing that tradition by helping to build Britain. www.travisperkinsplc.co.uk

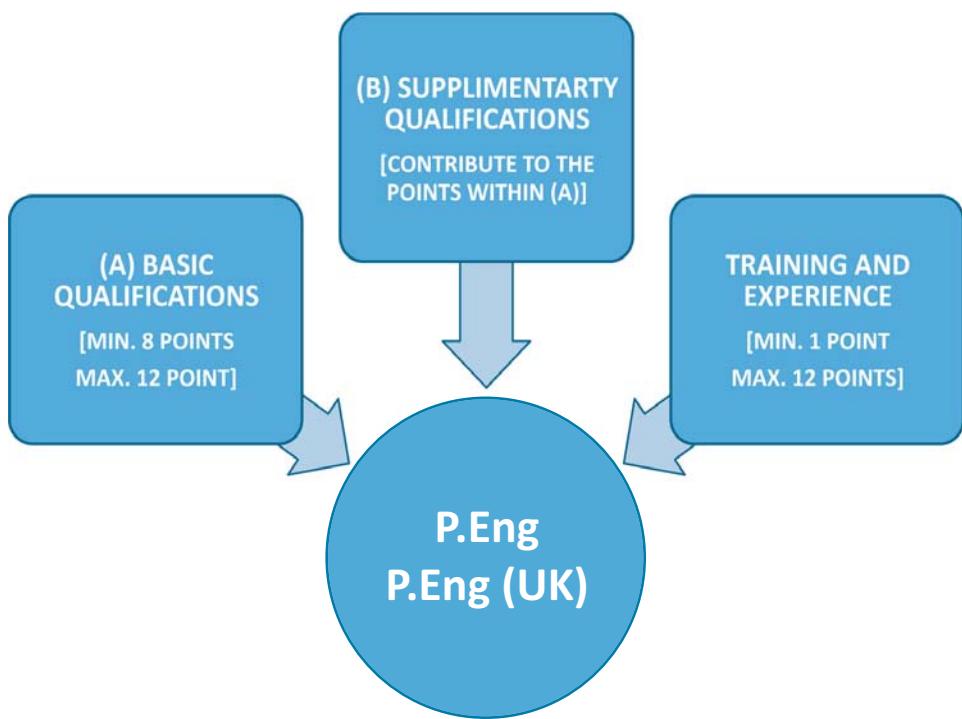


Membership

The achievement of P.Eng/P.Eng(UK) reflects an individual's academic qualification and vocational experience. Full details are contained within the membership guide available on the website:

www.professionalengineer-uk.org

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CD269 – Consultation on proposals on the alignment of health and safety regulations with the EU direct acting Classification, Labelling and Packaging Regulation

This Consultative Document seeks views on the proposals from HSE to align domestic legislation with the EU direct acting Classification, Labelling and Packaging Regulation (CLP). CLP, which implements in the EU the United Nations Globally Harmonised System (GHS) on the classification and

labelling of chemicals, comes fully into force in June 2015. An amending directive with a transposition deadline of 1 June 2015 has been adopted which updates five health and safety directives, including the Safety Signs at Work Directive, to reflect CLP. In addition, consequential amendments to a range of domestic

regulations to align them with CLP also need to be made. The amendments will replace references to the existing classification system and hazard warning symbols with CLP references and need to be made to relevant health and safety regulations in Great Britain by 1 June 2015. www.hse.gov.uk

Scottish Government Home Energy Efficiency Programmes for Scotland - New National Scheme Supply Chain

The Scottish Government intends to procure a contract for the delivery of a new national scheme due to go live in 2015, as part of its wider fuel poverty programme. A prior Information Notice of this procurement has been published.

The new scheme will be worth at least £16m per year for a minimum of five years and will be centred around the installation of insulation, heating and micro-generation measures in the homes of households who

are deemed to be in fuel poverty (i.e. having to spend more than 10% of their income on fuel bills). The Scottish Government intends to appoint a Scotland-wide Managing Agent for the Scheme who will be responsible for identifying the measures which are suitable for the dwelling, carrying out a technical survey, installing the measures, arranging a post-installation inspection and arranging billing.

www.publiccontractsscotland.gov.uk

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Ensuring best practice for passive fire protection in buildings

The new updated version of this excellent publication (65pp) was launched at FIREX International. The publication was originally produced following a joint industry/government sponsored research project into passive fire protection in buildings in which a number of buildings were inspected for compliance with regulations. It has now been extensively updated and contains guidance on best practice including who and where to get necessary information and guidance. It is available in printed form at £25 per copy (plus p&p) or as a free download at http://asfp.associationhouse.org.uk/default.php?cmd=210&doc_category=211



John Fairley Trade Association Secretary

Review of the Building Act 1975 and building certification in Queensland

This discussion paper outlines potential improvements to the building legislation and building certification system to further cut costs and reduce delays within the Queensland construction industry. It is a key part of the Queensland Government's commitment to reduce red tape and unnecessary regulation for the construction industry and in doing so strengthen one of the four pillars of the Queensland economy, which contributed to the economy approximately \$60 billion in the 2013-14 financial year. Proposals in the discussion paper will contribute to the State and Federal

Governments' reform agenda to further reduce red tape without impacting on the health and safety of the community. One of the ways in which this will be achieved is to reduce the regulatory count by 20 to 25 per cent. To help attain this goal, the paper invites submissions on what building work can be included as self-assessable or exempt. In addition, where possible, legislative provisions will be streamlined or clarified and redundant provisions removed. Enhancements to the building certification process will also deliver greater accountability to consumers and help protect against conflicts of interest.

Sustainability Inc.

Sustainability Inc. have been awarded a £4 million office refurbishment project by Insider Magazine's Property Developer of the Year 2014, Capital and Centric. Following approval of its plans earlier this year, creative property developer Capital & Centric has announced that it has appointed Middleton-based construction company, Sustainability Inc, to undertake the speculative £4 million refurbishment of

No.12 Tithebarn, a 1970's eight-storey office building in the commercial district of Liverpool city centre. The site has been derelict for nearly a decade and when complete will bring 40,000 sq ft (3,716 sq m) of what promises to be very different office space to the market. The scheme has received £2.4m of ERDF funding and once complete the development is anticipated to create around 400 jobs

Engineering and the Professional Engineer

Engineering is a complex process and requires activities that professional engineers often take for granted. Engineering combines both the sciences and the arts delivered through their application in practice.

Science of Engineering is considered to be the development of the understanding of materials, their properties, mathematics and mechanics for safe and successful application in the built environment.

The Art of Engineering encompasses the successful harnessing of the properties of materials to produce products required for the benefit of all.

The Practice of Engineering is the use of scientific knowledge and mathematics to benefit mankind by the safe and successful use of the art and science of engineering.

The Professional Engineer must be well versed in the art and application of engineering and not rely on mathematics alone.

The Professional Engineer is a person who has sufficient knowledge and expertise in the

arts of science and engineering to analyse situations and provide, with confidence, a practical solution to the problem. It, therefore, follows that the professional engineer should have a range of abilities as per the flow chart below.

Professional Engineers must be morally and intellectually honest and able to discharge

their duties with integrity and impartiality. Professional Engineers within the Society's register have provided evidence of their academic, vocational and individual expertise in accordance with the prescribed criteria.

Iain Wright P.Eng
Vice President



Affiliate Membership

The Society of Professional Engineers recognises the research and developments that have taken place within the built environment and acknowledges the term "Building Engineering" and the engineering skills and processes that are utilised in the generation of todays sustainable environment.

As part of this process of recognition the Society has reaffirmed its affiliation to the Association of European Building Surveyors and Construction Experts AEEBC.

The AEEBC was established in 1990 and represents Building Surveyors and Construction Experts who are professionally qualified in the technological and management processes by which buildings are designed, constructed, renewed and repaired in accordance with the national legislation of individual countries. Their expertise includes building pathology; asset protection; design and specification of new buildings; construction and project management; building maintenance, repair and renewal; legal work and expert witness.

The Society will be attending and participating in AEEBC activities in the coming months and provide feedback on European developments.

www.aeebc.org



"Joined up thinking"

The role of Professional Engineers and their interaction within the society formed an element of focus at a recent meeting with the CABE. John and David discussed and reinforced the creation of a built environment that reflected upon the use of new materials and technologies and the need for signed up thinking and the collaboration of engineers across all disciplines.

The coming months will explore opportunities for greater cooperation and participation at events both within the UK and overseas.



John Hooper Chief Executive CABE & David Gibson Vice President International SPE

Collaboration & Affiliation

The Society of Professional Engineers maintains a register that embraces all suitably qualified Professional Engineers of whatever discipline. The goal of the Society is to protect and enhance the status of the Professional Engineer. This is achieved through the promotion of this title

throughout the world by establishing, maintaining and strengthening close links with collaborating and affiliated bodies. The process of collaboration and affiliation reinforcing and promoting the highest professional standards within engineering without restriction to any one particular

engineering discipline. Collaboration is seen to be the action of working together to fulfil a task and to achieve shared goals with affiliation being the reinforcement of collaboration through formal agreement and memoranda of understanding.

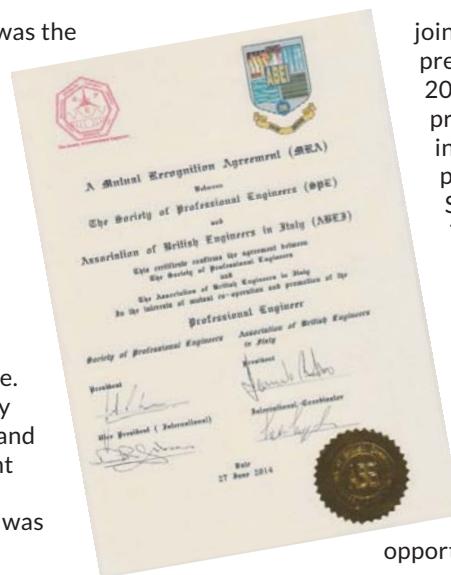
Milan - SPE hosted by the ABEI

The Professional Engineer was the focus point at the meeting hosted by the Association of British Engineers in Italy. The event was hosted by the President Professor Luciano Mirarchi and Immediate Past President and International coordinator Dott. Eur Ing Saverio Iuzzolini and members of their committee. The SPE was represented by Malcolm Parker, President and David Gibson Vice President International.

The theme of collaboration was reinforced through both powerpoint and verbal presentations. A dynamic and interactive meeting reflecting on the professional skills gained through both academic and vocational processes delivered by "Professional Engineers". The role of the ABEI and SPE within these processes was discussed linked to the collaboration and affiliation with Universities and fellow professional bodies within the local, national and global context.

The meeting culminated in the form of the signing of a mutual recognition agreement between the ABEI and the SPE and the agreement for further collaboration and cooperation during the coming months.

The events include the preparation for a



joint seminar to be presented at EXPO 2015 in Milan. The proposal would include presentations by SPE, ABEI, and IPF. The key theme being "Feeding the planet and energy for life" – sustainability.

The EXPO takes place from 1st May to 31 October 2015. The evening provided an opportunity to view the

developments taking place in support of EXPO 2015 incorporating the Unicredit Tower and the encompassed social area. The Garibaldi Tower, Varesine and Isola and the surrounding areas that form part of the Porta Nuova Project which was approved in 2004 for the creation of a new business district. The proposal creating pedestrian areas and route ways across Milan to the focal points such as Duomo.



A diagnosis for collaboration

For many years the SPE and the Institution of Diagnostic Engineers have worked together in the spirit of cooperation and collaboration. The Institution of Diagnostic Engineers Council meeting, held at the Hinckley Island Hotel in Leicestershire, provided the opportunity for Malcolm Parker President SPE to meet with the Chief

Executive Bill Parker and members of their council for an update in respect of SPE activities and the opportunities for further joint activities.

Malcolm was able to explain and reaffirm the requirements for the P.Eng register and membership of SPE. The discussion recognised the potential for even closer ties including cooperation in the setting



Malcolm Parker SPE President & Members of Council Institution of Diagnostic Engineers



Bill Parker Chief Executive Institution of Diagnostic Engineers

up of and attendance at joint functions and development events.

A positive and interactive meeting reinforced the aims and objectives of both bodies. A Memorandum of Agreement is to be created for acceptance by both full councils. The agreement will further the reinforcement of collaboration and affiliation for the benefit of all members.

PROMOTE YOUR SOCIETY - non-member colleagues?

Encourage them to join a membership information pack is available on-line www.professionalengineers-uk.org forward your completed application form to: email: enquiries@professionalengineers-uk.org or forward hard copy to:
**The Society of Professional Engineers,
Guinea Wiggs, NAYLAND, Colchester,
Essex CO6 4NF**

Affiliation and Collaboration with Professional Bodies and Organisations



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The Society of Professional Engineers

Annual General Meeting

21st October 2014

at The Institute of Directors, London



Programme

9.45	Arrival and refreshments
10.30	Presentation; Engineering; A risky business, a reflection on the roles and responsibilities of the Professional Engineer within the development process. Presentation; London – Going underground, an insight into city developments Presentation; What's the problem? – Time is money! A review of the options for alternative dispute resolution
12.00	AGM
12.45	Lunch with wine

The Institute of Directors, 116 Pall Mall, London SW1Y 5ED

Lunch is available, pre-booking and payment is essential. [Cost per person £12.50]

Book your place for the presentations and lunch:
Email: enquiries@professionalengineers-uk.org
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