



Richard Ogden – Chairman

We all know that the UK is seriously short of housing and getting on for 25 per cent of the housing that we do have is probably unfit for purpose compared to modern standards. Did you know that the UK has the oldest housing stock in the developed world?

The Government has long promoted the message that three million new homes will be needed by 2020 to meet the need of an increasing population and also an increase in the number of households. The collapse of the housing market has for a time served to change the nature of the popular headlines but there is no getting away from the fact that the demand is still going to be there when confidence returns, credit becomes more freely available and the housing market starts to recover.

In parallel with this inexorable rise in demand for housing the Government has rightly determined to crank up the performance of new housing to reduce the carbon impact of households. With housing accounting for something like 27 per cent of the UK's carbon emissions it would frankly be surprising if any other course of action was being promoted. There is no sense that this is in any way a party political issue ... politicians of all parties seems to take a common position on this policy imperative.

What we perhaps hear less about is the embedded carbon that, in practice, is required to achieve the new performance requirements that are set out in the Code for Sustainable Homes and in new Building Regulations. I am sure that someone has done the calculations although I suspect that in practice the drawing up of an overall energy balance sheet will be possible only over the long-term when the durability and performance of new products and technologies can be calculated with confidence. However, one area where the cost of embedded carbon is absolutely clear is in the context of waste on construction sites ... and there is certainly plenty of it – particularly waste from construction sites involving traditional construction methods. In particular I am referring to the up to 30 per cent waste of materials that have had to be sourced, manufactured, delivered and processed and waste too in respect of the associated labour. The net result is a flow of some material for recycling and a very significant flow of material to landfill. This situation is plain silly and it is

absolutely great that the Government through the WRAP organisation is pressing an agenda to reduce construction waste to landfill by 50 per cent. An update on this effort is featured in this newsletter.

Needless to say that I am convinced that the increased use of offsite construction methods will play a significant part both in ensuring the delivery of new housing in compliance with the increasingly demanding energy efficiency requirements of the Code for Sustainable Homes and also help establish an industry and clients that finally recognise that waste in all its forms is the result of inefficient design and manufacturing processes and is not something that we need to live with.

A few weeks ago *Buildoffsite* hosted another in its programme of afternoon workshop sessions including an incredibly well supported housing workshop which considered the question "have we reached the tipping point for the main-streaming of offsite construction solutions?" Now it doesn't matter a jot what I believe but the assessment becomes compelling when you hear the views of leading clients and developers who are out there taking decisions based on their assessment of how things stack up commercially at this point in time. With a requirement for compliance with Code 4 of the Code just around the corner the arguments can become only more compelling. Let me stress here that we are not talking about a blanket adoption of volumetric construction although this may well be the way forward for certain construction forms ... but we are certainly talking about new forms of hybrid construction where 2D and possibly 3D product solutions start to become integrated into housing projects as business as usual but without the hassle of waste, poor dimensional coordination, poor detailing, poor engineering and also poor health and safety. It is a indictment that in 2008 there was 72 work related deaths within the construction industry of which approximately 50 per cent was housing related.

Buildoffsite will be returning to these vital interlocking themes at our next stakeholder workshop programme on 8 October 2009. I hope that you will put this date in your diary and join us then.

However, to take forward the story I recommend that you now spend a few moments taking account of the assessment of one of the UK's most forward thinking homebuilders ... Dennis Seal, Kier Partnership Homes, which follows over the page. Dennis spoke at our housing workshop on 6 May and his views of where we stand now on the future construction methods of choice for the UK housing industry are well worth considering. Make up your own mind if we have reached that tipping point and if we have how are you going to respond to this new opportunity?

The *Buildoffsite* stakeholder event



The latest *Buildoffsite* stakeholder programme took place at the Department for Business and Enterprise's London Conference Centre on 6 May.

These programmes provide a regular opportunity for *Buildoffsite* to present activities and construction projects that demonstrate the cutting edge of the application of off-site construction methods across all sectors of the UK construction industry. They also provide an unmatched opportunity for business to business networking. These Programmes are increasingly popular with more than 250 delegates registering to attend.

The model that *Buildoffsite* has adopted is to offer delegates a choice of short workshop sessions focusing on topical issues, which are then followed by a *Buildoffsite* presentation and discussion session addressing a number of high profile off-site developments. These programmes also provide an opportunity for *Buildoffsite* to promote its work streams both to the *Buildoffsite* membership and to its guests.

On this occasion two workshops were hosted. One chaired by Cal Bailey of NG Bailey focused on the application of Building Information Modelling (BIM) techniques and one focused on the emerging opportunities for off-site construction solutions to become the construction method of choice for new build housing. The BIM workshop included presentations on the application of the technique to drive value in the Cross Rail Project and also its role in the delivery of the Barts and Royal London hospital project – the UK's largest PFI project. The Housing Workshop chaired by Richard Ogden, Chairman, *Buildoffsite*, included presentations from John Miles of ARUP, Dennis Seal of Kier Partnerships Homes, Andrew Main of Paradigm Housing and Jenny Hayes of O'Connell East, architects for Europe's tallest volumetric housing scheme. A major theme was the effect of the application of the Code for Sustainable Homes in shifting the tipping point at which cost effective construction methods for housing now favour the

adoption of off-site methods. The implementation of Levels 4 and 5 of the Code will serve to underpin this new operational reality.

The Stakeholder Programme also chaired by Richard Ogden featured presentations by Shane Lincoln, Design Director for the London Shard Development (which when completed in 2012 will be Europe's tallest building), Jamie Johnston of Bryden Wood Associates outlining the practice's *Building in a Box* offering, and Neil Taylor of Lysander outlining the lead that Gazeley is showing in developing warehouses and distribution parks which represent best practice in sustainable design and construction for some of the world's largest structures.

Copies of all the presentations from the 6 May programme are available on the *Buildoffsite* website: www.buildoffsite.com

The next *Buildoffsite* Stakeholder Programme will be taking place on 8 October 2009. Once again the event will be sponsored by the Department for Business and Enterprise and will take place at the Departments Victoria Street Conference Centre. The details will be published on the *Buildoffsite* website.

The search for attainable homes



Dennis Seal, Director
Development & Affordable Housing

UK housing delivery is without question at an all time low. Probably the worse we have seen for more than 50 years.

The issues affecting the housing sector in the UK are already well documented, so I won't dwell on them. Its recovery! Or should I say its potential for recovery is another matter and one worthy of considerable debate.

For me it is not just a question of when will the market return (many of the things that influence its return are beyond our control): it's more about what shape the housing sector will be in and what will the key drivers be behind its return.

Without doubt some form of market reconfiguration will need to take place. Will this be significant? This is a question we have yet to answer.

Prioritising affordable, intermediate and market rented housing in preference to open market sale maybe a short to medium term solution. Pressure is being applied to the housing sector to become more innovative even to the point of taking a more

contractor led approach (as highlighted by Sir Bob Kerslake, *Construction News*, 11 June 2009) is an interesting option.

However, given our general distrust of new ideas will we, at the first possible opportunity not revert back to our old ways, delivering housing the way we think we know best.

Whatever our preferred option we must allocate the time and resource to carefully consider any reconfiguration of the market whether this be through the nature of our approach or through the product delivered to our customers.

The way forward for housing in the UK needs to identify and plan very carefully its route to market. In our consideration we need to focus on the potential demand now – and in the future! We also need to consider the tenure of that housing.

The demands and ability of those eligible or able to rent or buy (whatever the tenure) will be one of the key drivers behind the future UK housing market. Our target for the future must therefore be to provide attainable homes.

Significant housing demands now and in the future (especially in the affordable sector) have the potential to reshape our thinking and provide a way forward whatever the construction method.

The question raised at the *Buildoffsite* conference on 6 May 2009 was “have we reached the tipping point?”. My presentation available on the *Buildoffsite* website suggested that for the 2D solutions (component manufactured products) the time was right to consider/reconsider the benefits and route to market for offsite manufacturing in the UK housing sector.

However, in the *Buildoffsite* process now and in the future its potential for success comes with a health warning:

- taking full account of all of the benefits for offsite manufacturing whatever the market, the per-unit cost must not exceed that of the industries usual delivery methods
- for manufacturing to succeed they need continuity of supply. One-off schemes will not work commercially. Commitment to a product and support from the housing sector to whatever construction method chosen is fundamental to its value to our industry and the only way in which commercial advantage can be obtained for the offsite model especially if we are to use it as a driver to deliver more new homes.

If we do not embrace 2D offsite manufacturing in our housing delivery for the next decade it may well be a lost opportunity and one we may come to regret.

New members



Enterprise Ireland is the government agency responsible for the development and promotion of the Irish indigenous business sector. We also seek to provide assistance for international companies who are searching for world-class Irish partners and suppliers across the globe.

The UK offsite market place is of significant strategic importance and we are pleased to play a role in developing the growth of the market and the promotion of the benefits offsite have to offer for the collective benefit of all. From our London offices, we represent a number of organisations with a broad array of capability and experience. From pre-cast concrete, timber and metal frame solutions, through to significant heavy engineering and also



Cork workshop

architectural services that sympathetically combine the best of offsite with traditional construction methods.

We have a broad sector focus and appreciate the benefits offsite fabrication offers to the aviation, secure accommodation, power generation and residential markets in particular. We would further wish to contribute to the development of other less developed sectors as the agenda for increased efficiency, quicker delivery, programme certainty and demonstrable sustainability penetrate all aspects of the UK civils and building industry.

As with the United Kingdom, a wealth of experience and expertise exists within the Irish construction industry. The Irish Government, through Enterprise Ireland, is currently investing in the leaders of the Construction Industry, to support their growth and expansion in global markets, securing success for individuals, their companies and for the Irish economy. Enterprise Ireland has a proven track record of delivering business results through a range

of industry led/focused initiatives for many industry sectors and our current *Leadership for growth* initiative, designed to capitalise on the talent within the Irish Construction Industry, is targeted at successful CEO's of Irish construction services companies who want to lead their company to global success. Enterprise Ireland is partnering with Duke Corporate Education (Duke CE) to deliver the *Leadership for Growth* programme. Duke CE has a strong reputation worldwide for creating value adding programmes, customised specifically to the needs of the participants and their businesses and are ranked no. 1 in the world by both the Financial Times and Business Week for customised executive education. The programme connects Irish companies to leading experts, practitioners and academic faculty from across the world in a range of global locations to begin the challenge of successfully developing global businesses and reducing the risk of international expansion.

Richard Ogden, Chairman *Buildoffsite*, advises:
"I am impressed with how Enterprise Ireland works. Not all Government departments are quick off the mark. This 'fleet of foot' quango works efficiently and effectively adding value to companies requiring help and assistance in many different forms.

The UK and Ireland have had a long track record of working together in the construction industry. Since Enterprise Ireland have joined Buildoffsite I am beginning to see opportunities of UK and Irish companies working together to form partnerships that will add value to both sides. Buildoffsite aims to steer companies and like minded interests together creating collaborative partnerships. Long may this continue to add strength to the construction industry making it more cost, time and quality conscious."

For more information on Enterprise Ireland contact:
 John Hunt
 Senior Market Advisor
John.Hunt@enterprise-ireland.com

Interserve Project Services Ltd



Interserve Project Service is part of the Interserve support services group. The parent company Interserve Plc – with a 50,000 workforce worldwide and £1.8 billion turnover – has worldwide interests related to the ownership, provision and maintenance of property assets.

Interserve has a 100+ year history and an annual turnover of £800 million in construction activities in the UK. Interserve offers whole-life solutions for



building and infrastructure projects through business case, design, procurement, construction, maintenance and aftercare, often working with other Interserve Group companies to provide a one-stop shop.

There is total commitment to successful project delivery, achieved by building relationships through a culture of innovation and creativity, and by providing bespoke teams with the right balance of managerial and technical skills. Interserve has a progressive approach, working in partnership to form long-term relationships with both clients and supply chain. Increasingly, work is derived from partnering and long-term alliances with clients such as HM Prison Service, MoD, Warwick University, BT, City of Sheffield, and NHS Estates.

Interserve continually researches new construction methodology and products; we are advocates of modular and off-site construction techniques and invest in continuous improvement throughout the business. Projects carried out for the custodial sector



are testimony to our commitment to modular construction.

Interserve has committed to the long-term development of its offering in the custodial sector. Working in long-term partnerships with its supply chain has enabled continuous improvement to cellular units in order to enhance construction efficiency and expand the off-site manufacturing processes through clever integration of differing construction methods and techniques. The approach of investing in the supply chain outside of any single project delivery ensures we capture lessons learnt, innovate and apply these to future schemes. Examples of the innovative and value adding benefits Interserve has developed through research and development initiatives are as follows:

- operationally led design
- short lines of communication
- reduced land take
- off-site construction
- modular approach
- flexible format
- pre-fabricated service risers
- integration of building services with structural frame
- integrated structural components across the supply chain
- pre-fabricated plant rooms
- service distribution through prefabricated service modules
- insulated masonry cladding systems with the objective to remove critical path uncertainty from traditional brickwork and cladding trades.

Contact:

David Large
Divisional Director
Interserve Project Services Ltd
395 George Road
Erdington
Birmingham B23 7RZ
Tel: 0121 344 4888
Email: david.large@interserve.com
Website: www.interserve.com



Leading design and build contractor



Roy Nield-Dumper and Vincent James

Composite joins *Buildoffsite*

Composite Ltd is delighted to become a member of *Buildoffsite*.

Founded in 1983, Composite is a leading design and build contractor, specialising in the design and construction of precast concrete frames and modular buildings. With its principal office in Eastleigh, and a regional office in Nottingham, Composite's estimated turnover for 2009 is £44 million.

Offering a high quality structure, combined with fast on-site erection rates, it has been involved in more than 400 projects throughout the UK for the health, education, car parks, retail, rail and commercial sectors. It has achieved this through highly skilled project management and expertise in the design and use of precast concrete. Current and future projects include multi-storey car parks for hospitals in Bournemouth, Bridgend, Swansea and York, and a teaching block for Tipton Academy in the West Midlands.



Composite's precast concrete, three-storey structural frame for Phase 2 of a new teaching block at Chessington Community College for the Royal Borough of Kingston-upon-Thames



Composite's 346-cell houseblock at HMP Nottingham is of mainly precast concrete, modular construction

Through a 50 per cent-owned joint venture with Tarmac Building Products, called Precast Cellular Structures Limited, Composite also supplies modular accommodation for the detention market, supplying secure accommodation to the Prison Service through MoJ Strategic Alliance constructors and through PFI contractors.

Pre-cast modular construction is particularly suited to minimising the inherent difficulties of working in a prison environment. Off-site manufacture and fit-out of M&E services, sanitary ware, grills, windows, furniture etc leads to high quality finishes and accuracy, less wastage, and faster on-site construction with minimal operatives. Pre-cast concrete is robust and durable, with its good thermal qualities for passive heating and cooling reducing energy requirements.

Vincent James, Business Development Director, said:

"We believe there are still far too many specifiers who take final decisions about design and build form before fully exploring the advantages of offsite manufacture. As a leading off-site design and construction company we want to change this situation by playing an active role in Buildoffsite. We shall use our experience and expertise to help it promote greater awareness throughout the supply chain of the step-change in quality, productivity, sustainability and value for money that application of offsite techniques can deliver."

Only recently (and not for the first time) Composite successfully demonstrated to a client in the education sector that an offsite solution was more cost-effective, and in other ways more advantageous, than the *in situ* solution first proposed.

Vincent James added:

"These are challenging times for the construction sector, but customers still want high quality delivery. As an offsite supplier that cares passionately about quality, we shall be seeking early accreditation to the Buildoffsite/Lloyd's Registration Scheme because, like an increasing number of major clients, we support the need for standardisation of best practice throughout the supply chain."

Richard Ogden, Chairman, *Buildoffsite*, said:

"We are absolutely delighted to welcome Roy Nield-Dumper and Composite into membership of the Buildoffsite family. Composite is a much respected name within the industry, working for some prestigious clients and main contractors in a wide range of market sectors. We look forward to working with Composite as it continues to grow its business nationally, utilising its skills for both existing clients and those in emerging sectors."

"Composite has agreed to host a discovering off-site visit to one of its projects, so we will soon have an opportunity to learn at first hand more about how it adds value to an increasing range of construction projects. The details of this visit will be shown on the Buildoffsite website (www.buildoffsite.com)."

Composite Ltd

2 July 2009

AccioGroup

Accio Group has consistently proven itself to be one of Europe's leading suppliers of temporary structure and event management solutions to the corporate and private markets. The company's dedicated team of highly trained professionals offer expert project management and can provide a range of solutions to meet individual client's needs.

Specialising in delivering world-leading temporary structures, Accio Group is renowned for its ability to deliver projects on time and on budget. The company has worked with many high profile clients including Emap, Land Rover, Nissan, RBS, Sainsbury's, Tesco, Thomas Cook, Toyota and UKTV. Accio Group's impressive experience encompasses installing and maintaining temporary accommodation, cafés, classrooms, disaster relief, emergency facilities for banks and businesses, emergency medical facilities, retail space, support facilities, temporary supermarkets and weather protection.

In addition, Accio Group also supply the vital ancillary services required to complete a project, including air conditioning, CCTV, facilities management, lighting, power distribution, refrigeration units and sanitation. The company is a progressive organisation dedicated to changing traditional build thought processes and its technical expertise is second-to-none. Accio Group has been at the forefront of embracing new technologies in the projects it has been tasked to deliver and the company's expert project managers are experienced in developing a range of solutions.

Accio Group has been working closely with a nationwide supermarket chain to deliver a diverse range of

temporary facilities including cafés, multi-level car-parking systems, retail extensions, storage and trolley bay areas. One of its most recent projects involved the company erecting Europe's largest temporary structure constructed on a platform.



This 15 000 square foot retail space is testament to Accio Group's commitment to innovation and client satisfaction. In addition, the company is also constructing new goods on-line facilities at two of the supermarket chain's food stores. The 230m² and 117m² structures will be vital to meeting increased customer demand for home-delivered shopping.

Accio Group's reputation also resulted in the company securing the contract to provide a temporary classroom at a Surrey school. A temporary structure was initially considered to be unsuitable. However, the range of ancillary services and quality of structure that Accio Group can provide resulted in the classroom being used for eleven months. The school was so impressed with the structure they wanted to buy and use it permanently.



This has led Accio Group to develop its portfolio to include a range of structures suitable for permanent installation. Similar to its temporary structure solutions, a permanent structure from Accio Group can also be delivered with full ancillary support and facilities management.

The company's corporate achievements are also mirrored in the work it does with private clients. The events arm of Accio Group uses innovative ideas to design spaces that exceed the client's expectations for originality and quality. These high-profile events

included The British Grand Prix Ball, a Royal wedding and product launches for a company that supplies the Ministry of Defence with armoured vehicles.



Stephen Casey
Managing Director
Accio Group
Freephone: 0800 389 6884
Email: info@acciogroup.com
Website: www.acciogroup.com

buildoffsite
discovering offsite

EcoCanopy: discovering off-site tour – 5 August 2009

EcoCanopy is a component based factory fabricated building system comprising a series of standard components such as roof, wall panels, glazing and waffle floor slab. The factory environment in which they are produced ensures a high level of quality, efficiency and reliability for the components and the buildings, creating robust, permanent buildings with a lifespan identical to conventionally built buildings.

EcoCanopy is more affordable than traditionally procured buildings, yet offers a higher quality construction, materials and finish. EcoCanopy uses design discipline and manufacturing economy to drive down costs and increase quality. The low cost of EcoCanopy does not result in a reduction in quality of building, services or materials used. Savings are made due to the sophisticated and efficient manufacturing process, reduction in material wastage, reduction in labour content, reduction in transportation/delivery costs and reduction in site preliminaries.



There is no limitation on the size of EcoCanopy buildings. They can be as small as a single 4x4 m canopy or as large as a school. The buildings can be single or multiple storeys. Internal spaces offer large spans of up to 8 m clear span width and unlimited length. The typical internal height is 2.7 m, however this can be increased or decreased as necessary. The variety of designs and configurations of the components have created over 15 buildings in Hertfordshire and throughout the South East of England.

Date: 5 August 2009

Venue: Egerton Rothesay School, Durrants Lane, Berkhamsted, Hertfordshire, HP43UJ

By car – via M25, then A41

By train – Watford to Berkhamsted (15 mins) or Euston to Berkhamsted (30–40mins)

Host: Bryden Wood Associates

Programme

9:30 am

Arrive at the Egerton Rothesay School

Refreshments

10:00 am

Introduction and a presentation from *Buildoffsite* followed by a presentation by Bryden Wood

Associates on the EcoCanopy Building System

10:30 am

Tour of the building

12.00 pm

Departure

To book please contact Anna Whiting on 0207 549 3306.

Attendance is free for members of *Buildoffsite*.



Yorkon completes new highly sustainable building for York's newest secondary school

Award-winning off-site construction specialist and Portakabin subsidiary, Yorkon, has completed a purpose-designed and highly sustainable education building for York High School – York's newest secondary school.

The £2 million project was part of a £10 million contract awarded to Clugston Construction to refurbish and extend the site of the former Oaklands School, and create a new, larger campus for York High School following the merger of two schools.

The modular building, which comprises 52 steel-framed units in two different sizes, was manufactured by Yorkon and craned into position in just six days, reducing disruption and time on site by around 50 per cent.

Completed in only six months, the new two-storey 1900 sqm scheme has replaced a number of sub-standard teaching buildings with state-of-the-art education facilities, and accommodates the Communications Faculty for English and Modern Languages, and the Inclusion Faculty.

Architectural features include a barrel-vaulted roof with central light wells, an impressive oversailing roof which forms an entrance canopy, and a range of external claddings to create a statement building – cedar and terracotta, with metal rainscreen panels to the upper floor on each elevation. There are also a number of sustainable elements to reduce energy consumption, carbon emissions and running costs:

- biomass heating
- passive ventilation
- the use of light wells and a high level of glazing to maximise natural light and reduce the reliance on artificial lighting
- rainwater harvesting for toilet flushing
- timber cladding from sustainable sources.

Alan Thomas, Architect, City of York Council, said

"This is the first time we have used off-site construction for a new school building, and we are very impressed. The construction process, management of the site, and the liaison with the main contractor, all worked very well, and Yorkon's design resources were beneficial to the Council's own architectural team."

"The use of off-site construction gave us certainty of completion on time despite the challenging programme for the whole campus, and it allowed us to take this building off the critical path. It reduced time on site and disruption, allowing the adjacent sports centre to remain fully operational throughout the construction programme and ensuring the safety of the general public. We would have no hesitation in recommending the approach, and Yorkon, to other



The building comprises seven general classrooms and four language laboratories, a new science laboratory, dining and social facilities, offices, behaviour management rooms, a hygiene suite and toilets for staff and pupils.

It has also been designed to be flexible and adaptable to change. The internal walls are non load-bearing and there are clear internal spans of up to 12 m, so the teaching spaces can easily be reconfigured to meet the school's changing requirements over time.

www.yorkon.info

For further information contact Yorkon on tel: 01904 610990



schools and local authorities."

Tony Clohesy, Project Manager at Clugston Construction, said

"This contract went very well, and Yorkon and Clugston had an excellent working relationship. Yorkon took responsibility for the construction of this building, which reduced our management time, and allowed us to focus on the other elements of this major school redevelopment."

"I am pleased to report we delivered it on time and on budget, and we would definitely use off-site construction, and Yorkon, again."



1 Yorkon has an extensive track record in the education sector, having completed a wide variety of projects ranging from self-contained teaching buildings and classroom extensions for both primary and secondary schools, to a purpose-designed adult education centre, and schemes for independent schools.

2 The Yorkon steel-framed modular building system is a highly sustainable alternative to traditional site-based construction. It offers:

- **improved thermal efficiency:** Yorkon steel-framed modular buildings are more thermally efficient than traditional site-based construction and consistently perform up to 70 per cent better than Building Regulations requirements (Part L2A) in full-scale independent tests for air permeability.
- **reduced energy consumption:** up to 67 per cent less energy is required to produce a modular building compared to an equivalent traditionally-built project (source: Arup)
- **reducing congestion and carbon emissions:** the Yorkon off-site approach generates up to 90 per cent fewer vehicle movements to site (source: Mtech)
- **environmental policy:** Yorkon is one of the first modular manufacturers to achieve ISO 14001 accreditation – the internationally-recognised standard for reducing impact on the environment
- **new greener design options:** Yorkon has introduced a series of new design options for “greener” modular buildings, to encourage the use of renewable sources of energy, reduce energy consumption and carbon emissions, and promote recyclability
- **waste reduction:** Off-site construction reduces on-site waste by up to 90 per cent (source: WRAP). Over the past three years, Yorkon has achieved a 50 per cent reduction in the volume of waste sent to landfill over the last three years
- **recycling:** Yorkon now recycles 78 per cent of all waste and targets are in place to further improve recycling and waste management.



Caledonian – modular solutions on the rise

The acceptance of the use of modular building to provide large scale, contemporary projects, continues to grow steadily. Those clients and main contractors that have adopted it as construction methodology have seen clear benefits on a range of accommodation solutions and having experienced successful project delivery are looking to find suitable projects to repeat their success.

Caledonian has an established working relationship with Bovis, through the debut contract to supply single living accommodation to Defence Estates and since 2002 has built over 6500 bedrooms, including a 22 block development at Catterick which provided 1300 bedrooms in just 18 months. More recently Bovis Lend Lease awarded Caledonian Building Systems a contract to build a 1200 bed student hall of residence in Sheffield. The contract was awarded in May 2008 and Caledonian will complete its work in September 2009, effectively only a 17 month programme.



The scheme, which includes study bedrooms, studios and family apartments, is constructed in eight different accommodation blocks, built on a sloping site over five to eight levels. In order to improve on programme time and reduce costs a range of design solutions were developed, including:

- creating an extra wide module at 4900 mm that would allow five bedrooms to be built within one 15 metre module. So for 10 flat clusters, two modules face each other with a drop in corridor panel, which reduces deliveries from five modules (which conventionally would contain bedroom/corridor/bedroom) to just two
- in order to add variety into the development and work around site constraints, the core areas, containing the staircases and lifts, are shaped to change the orientation of the blocks across the site and become a feature through imaginative use of claddings and glazing
- a range of claddings have been used including brick work, render, rain-screen and terracotta tiles, all hung from the structural elements of the modules
- due to the fact hot rolled, welded steel is used in the contraction of the modules no further structural support was required, even at eight storeys



The result has been an eye catching development that challenges what can be achieved through modular construction.

Recently Caledonian completed a project with Carillion Building to provide senior and junior rank accommodation at the NATO Strategic Command HQ near Watford. The project provided 460 bedrooms, as part of a whole site redevelopment which Carillion are undertaking. Following on from the successful delivery of this project, Caledonian has now been awarded a larger project with Carillion to provide eight buildings for the Royal School of Military Engineering, a project worth in excess of £40 million to Caledonian.

Projects such as these, demonstrate the confidence main contractors and their clients have in accepting modular buildings on major projects and the manufacturing and construction capabilities Caledonian has to deliver projects of such a scale successfully.

Clearly the UK construction market has had a torrid time over the last year. However, there are now clear signs that projects are starting to move again in key locations, such as student halls, hotels and social housing schemes. Many of these schemes call for medium to high rise buildings, something Caledonian is well placed to provide. These projects require rapid building methods and may have immovable

completion dates, such as student halls. Many contractors have seen a significant reduction in the people they employ and by choosing a modular method of build means that a large part of the build programme can take place under factory conditions, where availability of labour is not an issue thereby minimising the risks associated with projects.

Last year the Caledonian Group established a new modular facility in East Yorkshire, adding a further 25 per cent capacity to the 42 acre site already established in Newark. As such, the company is now even better placed to deal with new large scale projects.

For more information on what Caledonian can offer you and your projects contact:

Ian Kemp
Business Development Director
Tel: + 44 (0) 1636 821645
DDI: + 44 (0) 1636 822990
Mobile: + 44 (0) 7825 918744
Fax: + 44 (0) 1636 822999
ikemp@cbuildings.co.uk
www.cbuildings.co.uk



WOLSELEY

Wolseley opens “super branch” in Slough



Pipe Center, Wolseley's specialist supplier of commercial and industrial heating plant and pipe systems, has relocated its Slough branch - one of its highest performing branches - to a new, 30,000 sq ft purpose built site in the locality because it had far outgrown its former location.

The new facility at Yeovil Road, Slough Trading Estate, also features a Climate Center trade counter

with dedicated sales assistance, offering customers convenient access to both businesses under one roof.

Tony Morris, Managing Director of Wolseley's Commercial & Industrial division (comprising Pipe Center, Climate Center and Electric Center), said:

“The facility is well placed to serve major projects in the capital and across the region and is designed to deliver the benefits of size, scale and stock to customers.”

Slough manager Eamonn Phelan, who has been with the company for 30 years, added:

“The new site is fantastic and far better suited to our needs, being more than three times the size of our former location. We look forward to using it as a showcase, to bring in new customers and win new business”.

“I believe the success of the branch is down to our dedicated team, we have a lot of experience here and everyone is focused on getting the job done and delivering excellent customer service.”

For further information contact:

Becky Mee
External communications officer
Wolseley UK
Tel: 01926 705435 or 07801 928861
Email: becky.mee@wolseley.co.uk

Lucy Dorman
Account manager
Smarts
Tel: 0121 456 3199
Email: lucy.dorman@smarts.com

- Pipe Center is a supplier to mechanical services and plant engineers, offering expertise in tube valves and fittings in steel, plastic, copper, stainless steel and commercial/industrial heating and air conditioning equipment
- Wolseley UK provides construction products and materials through a nationwide branch network, including the Plumb Center, Build Center, Pipe Center, Drain Center, Climate Center, Parts Center, Electric Center, Encon, Brandon Hire and William Wilson chains
- Wolseley is committed to meeting customer needs by providing the right products and services when and where they are needed, at competitive prices. Its customers are anyone who constructs and maintains buildings and range from the largest construction companies to government organisations to self-employed contractors
- Wolseley UK is a subsidiary of Wolseley plc. Wolseley plc is the world's largest specialist trade distributor of plumbing and heating products to professional contractors and a leading supplier of building materials to the professional markets. Group revenue for the year ended 31 July 2008 was approximately £16.5 billion and trading profit was £683 million. At 31 January 2009, Wolseley had around 63,000 employees operating in 27 countries namely: UK, USA, France, Canada, Ireland, Italy, The Netherlands, Switzerland, Austria, Czech Republic, Hungary, Belgium, Luxembourg, Denmark, Sweden, Finland, Norway, Slovak Republic, Poland, Romania, San Marino, Panama, Puerto Rico, Trinidad & Tobago, Mexico, Barbados and Greenland
- Further information on Wolseley is available on: www.wolseley.co.uk.

LEAF Forum and exhibition – attracting international visitors

The 8th annual Leading European Architects Forum (LEAF) is for the first time hosting an exhibition alongside this established event. The exhibition will feature over 50 exhibitors showcasing their products and services to the international LEAF audience. The LEAF Forum will run concurrently with the exhibition in its traditional format of one-to-one business meetings.

The LEAF exhibitors will present a wide range of solutions from kitchens to steel and from tiles to flooring, meaning exhibition attendees will have access to all of the latest products and services available to the architectural community.

An educational programme will run alongside LEAF and features a top line-up of speakers covering the key challenges facing the industry today including; Europe's standing on achieving sustainable targets and delivering targets on good practice within the industry.



At a time when budgets are tight the LEAF Forum and exhibition represents the perfect opportunity to meet with suppliers and learn about the industry's latest developments – all under one roof.

Josko Kazija, Event Director, comments:

“Here at LEAF we are very excited about the addition of the exhibition to this year's event. We have had a tremendous response from the industry and are looking forward to a successful LEAF 2009”

Contact details:

VIBevents
 Brunel House
 55–57 North Wharf Road
 London
 W2 1LA
 Tel: + 44 (0) 207 915 9609
 Fax: + 44 (0) 207 724 2089

LEAF brings together leading international architectural practices and designers operating in Europe and beyond to share knowledge, to network and to develop new partnerships.

Through a carefully constructed programme, the LEAF model facilitates the exchange of information and ideas through scheduled one-to-one meetings, networking opportunities and conference sessions. Delegates will also be able to take part in a series of interactive workshops, panel discussions and keynote presentations.

The Event takes place from the 2–4 September at the InterContinental in Berlin, Germany.

For more information visit: www.leaf-forum.com

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BIS | Department for Business Innovation & Skills

New Department for Business, Innovation & Skills to lead fight against recession and build now for future prosperity

5 June 2009

The Government has today created a new Department for Business, Innovation & Skills whose key role will be to build Britain's capabilities to compete in the global economy. The Department will be created by merging BERR and DIUS.

The merger will create a single department committed to building Britain's future economic strengths. To compete in a global economy and create the jobs of the future Britain requires a regulatory environment that encourages enterprise, skilled people, innovation, and world-class science and research. The merger of BERR and DIUS brings together the parts of the government with key expertise in these areas.

It combines BERR's strengths in shaping the enterprise environment, analysing the strengths and needs of the various parts of British industry, building strategies for industrial strength and expertise in better regulation with DIUS's expertise in maintaining world class universities, expanding access to higher education, investing in the UK's science base and shaping skills policy and innovation through bodies such as the Technology Strategy Board.

It also puts the UK's Further Education system and universities closer to the heart of government thinking about building now for the upturn.

The new department is the institutional realisation of the approach to promoting UK competitiveness and productivity as set out in the New Industries, New Jobs paper of April 2009, produced jointly by BERR and DIUS.

The new department will:

- advocate the needs of business across government, especially of UK small businesses
- promote an enterprise environment that is good for business and good for consumers
- design tailored policies for sectors of the UK economy that represent key future strengths and where government policy can add to the dynamics of the market
- assess the changing skills needs of the UK economy, especially the intermediate and high skills vital in a global economy and design policies to meet them through public and privately funded life long training
- invest in the development of a higher education system committed to widening participation, equipping people with the skills and knowledge to compete in a global economy and securing and enhancing Britain's existing world class research base
- continue to invest in the UK's world class science base and develop strategies for commercialising more of that science
- continue to invest in skills through the further education system to help people through the downturn and to prepare Britain for the future
- deliver on the government's ambitious objectives to expand the number of apprenticeships
- encourage innovation in the UK
- defend a sound regulatory environment that encourages enterprise and skills
- collaborate with the RDAs in building economic growth in the English regions
- work with the EU in shaping European regulation and European policies that affect the openness of the single market and the competitiveness of European and British companies
- continue to work to expand UK exports and encourage inward investment to the UK.

Departmental websites

A new website will be created in due course. In the meantime, you can continue to access our existing pages:

<http://www.dius.gov.uk>

<http://www.berr.gov.uk>



Material change for
a better environment

It's a WRAP

WRAP (Waste & Resources Action Programme) is sponsored by the Department for the Environment, Food and Rural Affairs. WRAP works with local authorities, business and households to prevent waste, increase recycling and develop markets for recycled and sustainable products.

The construction industry is a major contributor of waste to landfill and WRAP has embarked on a major programme of activities with the aim of halving the amount of waste that ends up in landfill sites.

Context:

Construction is UK's biggest consumer of material resources (13 per cent of all raw materials used in UK economy) – 400 million tonnes annually

- the built environment is responsible for almost half of UK carbon emissions
- demolition and construction is responsible for the generation of approximately 120 million tonnes of waste, about one third of all waste generated in the UK each year
- approximately 25 million tonnes of all waste produced by the construction industry each year goes to landfill without further use or recovery.

Halving Waste to Landfill by 2012 – An Industry Commitment

WRAP has launched a voluntary commitment to encourage construction businesses to sign up to support measures that will have a direct impact on reducing the quantities of waste going to landfill. In setting out the commitment WRAP has focused on the financial, environmental, reputation and measurement benefits of this strategy. More than 120 organisations from all sectors of the construction industry have already signed up to support the strategy. More information on the Commitment is available from: http://www.wrap.org.uk/construction/halving_waste_to_landfill/index.html

WRAP is promoting a number of measures to support the halving of waste to landfill by 2012:

Case Studies: recognising that construction practices which incorporate the on-site assembly of off-site manufactured components will generate much less waste, WRAP has commissioned case studies to demonstrate the measured benefits from actual construction sites – a major inner city office development in central London and also a housing development in Somerset. These case studies have examined off site manufactured products in comparison to traditional methods of construction in relation to:

- waste (site and factory)
- resource required on site
- site efficiency and productivity
- environmental impact analysis and end of life assessment
- direct and indirect costs
- installation time
- health and safety.

The two case studies (British Land Ropemaker site, London and Jocelyn Park, Somerset) will be available in August 2009

New Design Guide

WRAP has also developed a guide for architects and designers: http://www.wrap.org.uk/construction/tools_and_guidance/designing_out_waste.html

This RIBA endorsed guide provides information on the key principles that designers can use during the design process and how these principles can be applied to projects to maximise opportunities to design out waste. The guide includes a section on the role of off-site construction.

Designing out waste competition: WRAP has also launched a *Designing out waste* competition

- the competition was open to practising architects and qualified professionals from other construction-related disciplines, together with students of architecture, design and construction-related subjects
- selected entries will be published on the WRAP website and the competition website www.designingoutwaste.org.uk
- competitors could choose from one of three project/site examples and show design solutions that implement innovative, practicable (considering buildability and commercial viability) and replicable measures, which will make a significant impact on waste reduction.

The three project/site examples from which competitors selected one were:

- A flat, inner-city, brownfield site with old Victorian warehouse and terrace housing that is being developed for mixed use residential, workspace, retail and open space
- Development of a new office and warehouse headquarters on a landscaped business park with good transport links
- A new-build primary school in an inner-city area.

The results of this competition will be announced towards the end of July. WRAP will incorporate the best ideas into a case study resource that will support the *Designing out waste* guide.

ICSF Breakfast meeting

To assist individuals deal with the challenges relating to renewable technologies and the impact of climate change on buildings the ICSF has set up a series of breakfast sessions to help to raise awareness, improve understanding and also have a working knowledge in terms of design and on-site construction.

The Innovative Construction Skills Forum is funded by ConstructionSkills with the aim of understanding the impact of innovative methods of construction and providing solutions to upskill contractors and designers.

The breakfast sessions are supported by BRE and NG Bailey.

For more information please visit www.bre.co.uk/enews/ICSF/index4.html

Buildoffsite members

Accio	Kier Partnership Homes
AcerMetric	Laidlaw Solutions
Anglian Water	Limited
Apex Wiring Solutions Ltd	Laing O'Rourke
Armstrong	Lloyd's Register EMEA
Arup	Mike Jackson
BAA	Associates
BBA	Modular UK
Bau How	NG Bailey
B&Q	Ormandy Ltd
Department for Business, Information and Skills	Portakabin
	Roger Bullivant
Britspace Modular Buildings Limited	Sandwood Design and Build
Bryden Wood Associates	SEGRO (Slough Estates)
Buchan Concrete Solutions	Southern Housing
Caledonian Building Systems	Group
	Terrapin Ltd
Capita Symonds	UNITE
CIRIA	Vision
CIRCLE	Wolseley UK
Composite Limited	WRAP
The Concrete Centre	Yorkon
Corus	
ConstructionSkills	Associate members
Costain	BRE
Crown House Engineering	British Precast
Danish Technological Institute	BSRIA
	The Concrete Society
ELA8	Construction Products Association
Enterprise Ireland	HSE
Fusion	Loughborough University
Gateway Bathroom Pods	Oxford Brookes
Gazeley	SCI
GlaxoSmithKline	TRADA
Ministry of Justice	UKTFA
HM Prison Service (MOJ)	
Howick Ltd	
Innovare	Media partners
Interserve	VIB Events



Buildoffsite Registration Scheme – a familiarisation seminar

The *Buildoffsite* Registration Scheme familiarisation seminar, held on 2 June 2009, at the Lloyd's Register head offices in London, provided a comprehensive overview of the scheme from a range of perspectives:

Terry Mundy of Lloyd's Register provided an introduction to the scheme and its benefits Nigel Fraser of BAA explained the benefits of the scheme from a client perspective and why BAA required the offsite providers within the BAA supply chains to be accredited under the scheme.



Nick Whitehouse, former Chairman of Terrapin, described Terrapin's experience of the scheme from the perspective of an accredited offsite provider. Peter Jones of Morgan Ashurst described their experience to date of the scheme, having partially completed the accreditation process.

Anders Thomsen, Director of Offsite within the Danish Teknologisk Institut, described the reasons why he was rolling out the scheme in Denmark. Martyn Wilson of *Buildoffsite* described the Floor Cassette project, developed in conjunction with BAA and GSK and the reasons why the *Buildoffsite* Scheme would represent an integral part of the process.

Over 30 delegates attended the seminar and the feedback was extremely positive with many of the delegates commenting that they had never fully understood the extent and nature of the scheme until they were exposed to the range of perspectives delivered at the seminar.



For more information on the Scheme contact Terry Mundy of Lloyds Register on 07712 787851
Email terry.mundy@lr.org