

## Deptford Student Village near completion

The Rachel McMillan Student Village is a mixed-use scheme on a 2.5 acre brownfield site in Deptford.

The development of 948 student study-bedrooms also contains studio workshops, café, crèche, launderette and a large educational facility for Study Group International. The accommodation is arranged in a series of blocks varying from 3 to 9 storeys around the perimeter of the site with a series of courtyards linked along a strong pedestrian street.

The render and system-glazed facades use strong colour contrasts to articulate circulation cores. A vertical 'fin' feature picks up on the design of the roofs to the cores and articulates the façade along the East / West street elevation.

The scheme was designed as a frame and masonry construction, however, the requirements of the programme and site logistics suggested that



a precast concrete panel system would offer the most effective construction solution. Bison's Crosswall construction system was specified for the bedrooms which required 22,740m<sup>2</sup> of precast concrete walling and 23,610m<sup>2</sup> of hollow precast prestressed flooring. In addition Bison supplied 145m<sup>3</sup> of precast

concrete staircases. The precast panels not only shortened the length of the construction programme but also allowed a significant reduction in wet trades. The quality of the finished panels was suitable for decoration and results in a 'student proof' finish.

**Main Contractor:** Jarvis Construction Ltd

**Architect:** Wilmore Iles Architects Ltd

**Engineer:** Curtins Consulting Engineers

**Precaster:** Bison Concrete Products

## It's good to talk – says Peter Camber

Much has been written recently about the benefits of partnering, team working and the need for better working relationships in the construction industry.

One common thread linking these aspirations is the need for early consultation, be it at team level or at any interface of client/professional/contractor/precast supplier or vice versa.

In practice, selecting a precast supplier at an early stage by reputation or beauty parade will improve both the quality and value of a project.

Early consultation can also

draw on the full experience of the precaster at all stages from design and mould to manufacture and erection.

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# ... It's a Wonderwall

When it came to the development of new industrial units on a potentially problem site in Sheffield, main contractors Finnegan's approached leading UK foundations expert Roger Bullivant Limited, to source a solution.

"The problems stemmed from huge differentials in levels on site which effectively split it in half hampering the full development potential", explained RBL Concrete Products sales manager Trevor Howells.

The RBL solution was to cast the biggest retaining wall panels ever produced by the company, with some in excess of 5.3 metres high and weighing 8.9 tonnes.

The finished version is almost 70 metres long and is made up of 30 precast panels with each panel having to be individually transported to site.

The RBL Group is the UK leader in foundation engineering specialising in piling, ground improvement, house foundations and special concrete products.



*Standing on the shoulders of giants! RB Wonderwall – the tallest precast wall ever produced by top UK foundations expert Roger Bullivant Limited (RBL). Concrete Products national sales manager Trevor Howells is pictured in a "supporting" role with RBL's Paul Hayes and Gary Mills from Finnegan.*

## Fast Build Coventry Arena

Bell & Webster Ltd the Grantham based precast concrete manufacturer is supplying its Fast Build precast concrete terracing components for the new Coventry Arena project for Coventry City Council and Coventry Football Club.

In addition to Coventry City Council's 30,000 all seater stadium, the development incorporates a retail park, Tesco store and a casino.

Bell & Webster Concrete is manufacturing some 3250 terracing units, 1800 precast concrete steps, 18 balcony units 219 vomitory walls, vomitory slabs and vomitory stair units. The total number of precast components units exceeds 5,500.

The main contractor is Laing O'Rourke Construction Limited

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Risk is automatically reduced by adoption of this process as is the chance of improvement in timescale and best practice.

Another important benefit often overlooked is the learning experience both to the team and the individual, and is an excellent route for self-learning.

You will also find the precaster is enthusiastic and fully committed to the adoption of the process, as it allows more opportunity to generate turnover and profit and develop prospects for longer term relationships.

There does not appear to be any obvious downside to early consultation, in fact it is considered mandatory on all major projects.

It therefore begs the question why early consultation is not fully adopted by the whole of the construction industry as surely it should be considered Best Practice.

This issue of SPA News provides an ideal opportunity to welcome a new member – Manchester Brick and Precast Ltd

Since acquiring a brick and block cutting firm in Stockport in 1994, father and son Nigel and Harvey Thorp have created a £2 million turnover company employing 50 staff with Harvey

taking responsibility for the day to day decisions.

Although brick and block cutting still continues at Stockport, where the work force specialises in the manufacture of brick faced arches, precast units up to 5 tonnes are also produced. Space restrictions led to the acquisition of an eight acre site at Chesterton near Stoke on Trent in 2002 where there has been considerable investment in converting the original saw mill, installing two 12 ½ tonne cranes, aggregate bays, cement silo and a mobile batching machine. The facility produces large structural panels, cladding panels with brick or terracotta finishes,



staircases, columns as well as wet cast copings and cills. Commented financial director Graham Shaw, "We see our membership of the SPA as a very significant step toward achieving recognition as an established supplier of innovative precast solutions."

Last but by no means least I would like to thank members for their support during my time as chairman and extend my best wishes to Paul Whitham who was elected chairman at the recent AGM.

# Best car park 2004 award for Merry Hill

At the British Parking Awards 2004, SPA member SCC Limited received the best car park 2004 award for the Merry Hill project. Chelsfield Limited appointed SCC in January 2003, with work beginning almost immediately to achieve handover late October 2003 in preparation for the pre-Christmas shopping period. The five-level car park sits on a footprint of some 8200m<sup>2</sup> on the site of an old existing single-deck car park. As part of the planning application, apartments wrap around the corner elevation where the new development abutts the existing access road.

Design is based on a portal frame solution with plain high-quality finished concrete parapets. The structural frame is supported on piled foundations with a ground bearing slab providing



parking at ground level. The precast portal frame structure was assembled from some 3000 prefabricated components with a further 350 used for stair cores and circulation areas. Floor plate units were supplied

to site pre-trowelled, the finish being further enhanced with an elastomeric coating.

User access to the car park is provided by dual access and egress ramps between each level, with two large circulation

cores for pedestrian use, all to a high standard of finish. It is Chelsfield's belief that the high standard achieved will be instrumental in encouraging a greater number of shoppers to use the facility.

## West End debut



It may only have been a supporting role, but the challenges faced by Ebor Concretes in supplying precast structural backing panels on cue and into the heart of London required a powerful performance.

The script highlighted a series of restrictions firstly the panels should not exceed the maximum 10 tonne capacity of the site tower crane as heavy mobiles working in narrow streets could not be entertained.

Each panel was designed as a Vierendeel girder clear

spanning between columns with all the vertical load being transferred to the main building steel columns via primary bolt-on end brackets. Having to resist the cumulative axial load from the panels, insitu stone cladding above and accommodate expected lateral movement, the weight of each bracket was such that they were fitted to the panel before despatch.

In total some 34 panels up to 8 metres wide x 3.7 high were supplied for the Regent Street project to stone specialist Grants of Shoreditch. What a good show!

# A real time saver



Milbank Industries Ltd has just completed a showcase site for their Danilith factory built masonry system in Suffolk.

The Danilith system uses storey height concrete panels for both the external and internal walls of a house, combined with precast concrete upper floors and factory made insulated timber roof panels to achieve a high quality, yet rapid build.

The works that would have taken 15 – 20 weeks by conventional means were reduced to 4 weeks. (2 weeks off site + 2 ½ weeks on site).

Danilith supplied and installed the following components:

- 24 No. 250mm thick concrete

wall panels forming 375m<sup>2</sup> of external walls,

- 52 No. 100mm thick concrete wall panels forming 307m<sup>2</sup> of internal walls,
- 100m<sup>2</sup> precast concrete lattice girder first floors
- 232m<sup>2</sup> of insulated timber roof panels

All these were delivered to site on eleven articulated lorries, each with a maximum payload of 26 tonnes.

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STRUCTURAL  
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A product association of  
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# Out with the Old, in with the New

Tarmac Precast Concrete has recently completed work on the Pescod Square car park in Boston, Lincolnshire, in a £1.8million contract for Miller Construction. Tarmac won the contract for the design, manufacture, supply and erection of the precast concrete frame and double-T flooring in competition with steel and in-situ concrete alternatives.

In addition to 10,000m<sup>2</sup> of car parking space, the structure provides accommodation for retail units at ground level as part of a major redevelopment of Boston Town Centre for Miller Developments. The car park was constructed in two phases, the first during the summer of 2003 and the second in the winter of 2003/4. Frame components were supplied from Tarmac Precast

Concrete's factory at Henlade near Taunton, Somerset, the double-Ts being manufactured at the Tallington factory, near Stamford.

As part of the £20million shopping centre development, Miller Construction had to move the 15th century Pescod Hall a distance of some 20m. The structure was raised, turned through 180° and moved on

two computer-operated trailers. Its new location will allow it to become the centrepiece of the Pescod Square shopping centre.

Due to open for trade this summer, the redevelopment provides an additional 22 shopping units totalling 92,500ft<sup>2</sup> of which more than 80% is let. Tenants include Next, Wilkinson, Ottakars, Clinton Cards, Allsports, and Peacocks.

