

## Royal Ascot at York

Europe's most glamorous and high profile flat-race meeting is going north to Yorkshire in June 2005, while the redevelopment of Ascot Racecourse takes place.

The award-winning Ebor Stand and the equally impressive Knavesmire Stand, both of which incorporate precast stairs and terracing designed and manufactured by Ebor Concretes Ltd, helped York stave off strong competition from Newmarket, Newbury and Cheltenham.

During the construction period, main contractor Sir Robert McAlpine had to plan the work around York's racing fixtures to ensure no days were lost. Specialist structural steel supplier Severfield-Reeve installed stairs, terracing and steel frame and by utilising the same crange ensured each of the six stair towers were complete and serviceable, avoiding the costly option of a return visit.

Ebor Concretes Ltd has a long association with York Racecourse going back some forty years.



## A site better off

*with early consultation says Paul Whitham, chairman of the SPA*

As precast concrete continues to grow in stature and use as the construction material par excellence, more and more architects, engineers and clients are realising that a typical 'precaster' is a specialist subcontractor with a multi-disciplined highly skilled organisation undertaking multi-faceted tasks. And the criticisms that used to be trotted out – typically costs, lead times, logistics and aesthetics – are heard less and less as understanding grows of the wide-ranging demands placed on the precaster, as shown in this table.

Function	Analogy
Developing the design and detailing the precast and associated works	A design consultancy
Producing moulds, fabricating reinforcement, casting and finishing concrete	A manufacturer
Supplying elements to site	A haulage contractor
Erecting precast elements and associated work	A constructor

The comment – “I don't want you on site until October, so why do you need an instruction in April?” – is only understandable if the extent of the off-site works is not fully appreciated. If they are adequately allowed for in the programme, such off-site works are executed concurrently with preceding main contract works, so that frame elements are in store ready for incorporation into the works when required.

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## Precast was the best idea



**H**anson Building Products supplied 3000m<sup>2</sup> of bespoke precast concrete flooring units and 18 concrete staircases for the new Idea Store in Whitechapel Road, London, the first of a series planned by the London Borough of Tower Hamlets in East London. To date, two have been started: one in Chrisp Street opened 19 July 2004, while the flagship development in Whitechapel Road is set for mid-2005.

The latter was highlighted as an exemplar project at the 2002 Venice Architectural Biennale and the 2003 Sao Paulo Bienal. Architect for Whitechapel Road is Adjaye Associates and structural and mechanical engineering services are being provided by Arup.

A modern redefinition of the neighbourhood library, the Idea Store consists of state-of-the-art facilities combined with educational learning areas in partnership with Tower Hamlets College.

## Going to the store

**M**anchester Brick & Precast has recently completed the design, manufacture and installation of 15 structural brick and stone-faced precast arch panels at the new Tesco store in Shaftesbury. Weighing 9000kg the units were faced in red stock bricks and natural stone from Melbury Greenstone. Restricted site access resulted in a phased installation as steel frame erection progressed. The precast solution reduced the build programme by weeks and ensured a high-quality finish for some demanding architectural details.

**Contractor:** Kier Western

**Architect:** Lyons Sleeman Hoare



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Producing a precast frame element in a factory need not cost more than casting in-situ. What also needs to be understood is the added benefit of precast in terms of programme savings and certainty, savings in prelim costs such as scaffolding, higher quality and fewer defects, and less risk – all leading to earlier completion of the building. All too often, these aspects are not taken into consideration when comparing costs.

Precast concrete is a robust proven material which offers design flexibility and worthwhile economy with reasonable repetition. Prefabrication,

with its associated certainty of quality, costs and programme, is the obvious way forward for construction. It has a proven track record of delivering these essential client requirements.

The decision to prefabricate must be taken early and the specialist involved from day one if full advantage is to be gained. Moving construction activity from site to the factory requires earlier planning and design finalisation than is the case with traditional methods. However, the discipline leads to significant efficiencies on site and to higher-quality construction.

## Seductive concrete

**M**aking concrete sound 'sexy' is a tall order, yet Kemper Booher and the new management team at Buchan are confident they can do just that.

In the last 12 months the business has made significant improvement in its processes to enable it to compete more effectively.

Said Kemper Booher: "The British Precast Award reflects the dedication and commitment of the entire team. As an engineering led company we aim to fully understand clients' needs, adding value to their

businesses. We will maintain our reputation as the premier UK factory engineered concrete manufacturer of both civil and building products".

The business has been rebranded as Buchan Concrete Solutions and the new corporate logo retains its link to the AMEC brand.

Office-based operations have been moved to the company's existing factory site at Byley, just off the M6 at Holmes Chapel.



# Kicking off in 2005

The Morfa Stadium in Swansea with seating capacity for just 20,000 is small in comparison with the new Arsenal stadium that Tarmac Precast Concrete is currently supplying. Nevertheless, it presented its own challenges with a much shorter manufacture and delivery period and a greater complexity of design.

Terracing and wall units were produced at Tarmac's Henlade factory in Somerset and hollowcore flooring and stairs were produced by Tarmac



Topfloor at its Lound factory in Nottinghamshire. Main contractor Interserve commenced erection of the precast terracing units on the steel frame in March 2004 and

completed by July 2004.

The community stadium is funded by Swansea City Council and will be leased back to Swansea City Football Club and Swansea Rugby Union Club as

well as being used for other events. The city's football and rugby union clubs expect to play their home games at the stadium from the start of the 2005/6 season.



## Quality construction

Roger Bullivant Ltd, Precast Concrete Products division, has recently supplied and installed its dock leveller pits and ProWall® walling system into a new award-winning distribution centre at Daventry for Prologis Developments Ltd.

In announcing Prologis as category winner, the judges at the Quality in Construction Awards ceremony said, "The modular shed concept is really impressive and does show what can be achieved through off-site manufacture."

"By becoming part of the client's supply chain at a very early stage, we were able to standardise components and help complete the construction work in a much smoother and quicker operation" said RB national sales manager Trevor Howells.

## In Dublin's Fair City

Trent Concrete has been awarded a major contract for a combined structural and architectural precast concrete scheme on a new apartment development on Finglas Road in Dublin.

The contract covers a 30,000m<sup>2</sup> cross wall frame system covering a total floor area of around 37,000m<sup>2</sup>, 7300m<sup>2</sup> of external cladding, 2400 linear metres of external party walls and 2700 linear metres of balconies.

"We had an open mind on the structural solution, and invited specialist contractors to offer their ideas," explains Chris Timmins, contracts manager at McCabe Builders. "Trent's solution to precast the entire building was the simplest and



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offered major advantages. It gave us a one-stop shop, and minimised the number of trades on site and, with quite a tight programme, we can go from ground level to a watertight eight-storey envelope in just 21 weeks.

**Contractor:** McCabe Builders (Dublin) Limited

**Architect:** Anthony Reddy Associates

**Engineer:** WYG

# Milbank at Stratford International



Stratford International Station is being built as part of the works for the Channel Tunnel Rail Link (CTRL), Britain's first major railway for more than a century. The station, which opens with Section 2 of the CTRL in 2007, will bring international travel to east London.

CTRL client Union Railways (North) Ltd awarded the contract to build the gigantic

station box – 1075m long and 24m deep – to Skanska UK plc. Rail Link Engineering (RLE) is the project manager and designer.

C.A. Blackwell, who are carrying out the initial civil engineering works, approached Milbank Floors Ltd for the supply and manufacture of 460 deck units and over 300 permanent formwork planks.

## An excellent bridge

Ballingdon Bridge in Suffolk received a certificate of excellence and won the British Precast Award for 2004 at this year's Concrete Society Awards held at the London Marriott Hotel on 4 November. The judges commented, "The form, finish and colour of this bridge are entirely appropriate to

its situation and function. In particular the quality of the precast concrete is first rate and it is clear that great care has gone into the manufacture." Architect was Brookes Stacey Randall, main contractor Costain Ltd and precaster Buchan Concrete Solutions.

### *In the next issue:*

Two major projects to be featured in the next issue are the Princes Dock multi-storey car park, Liverpool; structural engineers Hill Cannon, design build contractor SCC Ltd; and an 11-storey residential development Royd House, Birmingham; structural engineers John Nolan Associates, precaster Bison Concrete Products.

## Hidden from view

Bell & Webster Concrete Limited, is supplying its FAST BUILD™ precast concrete retaining walls for the new Severn Trent Sewage Treatment Works at Shifnal near Telford.

The Shifnal project, the largest of its kind ever undertaken by Severn Trent Water, is highly complex and uses six reed beds to provide a buffer to the main conventional sewage treatment systems.

Twelve hundred 1.5m high precast concrete retaining walls were needed to construct the reed beds and when completed they will hide the treatment works from public view.

**Engineering Consultants:** Carlbro

**Main Contractor:** AMEC Infrastructures



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