

LONGEST SIGN GANTRY FOR M6 TOLL ROAD

CV Buchan is supplying 28 sign gantries to the CAMBBA consortium constructing the M6 Toll Road (Birmingham Northern Relief Road).

The contract includes the longest sign gantry manufactured so far at the company's Accrington factory. At over 40 metres long and weighing in at 128 tonnes, the gantry alongside the existing M6 just north of junction 12 is pictured being lifted into position by erection sub-

contractor PCE Limited.

Valued at over £1.1 million, it is one of the largest concrete sign gantry contracts to be let in the UK. CV Buchan is also supplying bridge beams for seven bridges on the toll road as part of a further £1.4 million contract with the CAMBBA consortium.



Opportunity to increase market share says chairman Mike Downing

The Chancellor's recent announcement of considerably increased spending in health and education has given a further boost to the UK construction industry, which is already experiencing levels of activity close to those of the late 80s boom years.

This time around we are fortunately not seeing the overheating and price inflation associated with that period, and forecasters are predicting stability and modest growth over the next 2–3 years. However, the construction industry is still suffering from severe skill shortages – threatening the ability to deliver schools and hospitals within the Government's time frame.

The solution, at least in part, is to significantly increase the use of prefabrication in construction, to move work from sites into factories.

Precast concrete is a highly developed, factory-based industry that provides structural components, fully precast beam-and-column

frames, modular units and cladding. The members of the SPA offer a complete service for design, manufacture and site erection.

Modern procurement methods have identified the value of selecting the specialist contractor at an early stage, to take advantage of expertise in design, manufacturing and construction economies. This ensures that best value and the fastest construction programmes are delivered.

There is also the opportunity now for a major expansion in the market share of precast concrete structures over their structural steel counterparts. Indeed, some current estimates put this growth potential at 300–400%. This is in part due to the increased understanding of the benefits of off-site manufacture, and also because of the inherent fire protection properties of concrete.

We can look forward to many years of sustained growth.

Kit-Form Car Parking

Midland Mainline has just taken possession of a 684-space car park serving Sheffield's Turner Street train station. The 42-week programme has been undertaken by design-and-build specialist S.C.C. Limited based in Stockport.

Sitting on a footprint of some 2750m² adjacent to Porterbrook, the six-level car park was constructed with some 2500 prefabricated components, 460 of which provide the external envelope.

The portal frame structure is supported on a piled foundation with a ground bearing slab providing the parking at level one. The remaining floor plates are constructed using pre-finished precast units that speed the erection and allow the few finishing trades required to complete sooner.

User access to the car park is by two-way circulation ramps



between each level, with the addition of three service cores and two lifts for pedestrian use.

The architectural treatment to the external envelope has been designed by Pulmann Associates, with input from Sheffield City Council.

However, the final solution evolved through a number of pre-contract meetings to select materials and address the practical aspects of their use in prefabricated components along with the health & safety issues in the construction process.

Cladding to the ground floor is reconstituted stone panels with an acid-etched finish to the block stretcher bond design.

The remaining five levels take on a traditional brick look with two types of wire-cut bricks purpose-made for use in prefabricated precast panels.

Dovetail keys in the backs of bricks provide a positive connection to the structural backing with panels being interconnected in the vertical plane with Macalloy bars. Frieze panels forming the parapet at roof level have pronounced bands in a contrasting colour to the main brickwork.

Jolly Hockey Sticks!

Bell & Webster Concrete has supplied its fast-build terracing units and associated raker beams, steps, stair flights and retaining walls for a new hockey stadium being built at Cheltenham Ladies College by McArdle Sport Tech Limited.

The new stadium, designed to accommodate 300 spectators in eight rows of seats, is made up of 127 precast terracing units manufactured at the company's Grantham factory.

Since developing its concrete terracing products, including step units, stairways, balconies and vomitory panels in the early 1990s, Bell & Webster has

provided units for sports stadiums and multi-screen cinemas, theatres and auditoriums throughout the country. The terracing units can provide clear spans up to eight metres, with standard steel moulds used to produce tread widths up to 960 mm and risers up to 600 mm. They also have up to one hour fire resistance rating and can

withstand extreme weather.

Commenting on the Cheltenham contract, McArdle's site manager, Murray Neil said, "We had an opportunity to use three sub-contractors for this project and Bell & Webster came up with the best price. We have been pleased with the results with the company meeting all necessary deadlines".

Client: Midland Mainline

Design Build Contractor: S.C.C. Limited

Architect: Pulmann Associates

Engineer: Hill Cannon Partnership



Maintaining a theme

Trent Concrete has developed an innovative precast concrete structural component as part of its current contract at The University of Nottingham.

The project involves an extension to the landmark Portland Building at The University Park Campus, and it was essential for all external elements to complement the original building and maintain its important architectural theme. Trent is producing a special acid-etched reconstructed Portland stone frame and associated Hardwall (composite sandwich) cladding.

As illustrated above, the Hardwall cladding panels have been cast integrally with the structural edge beam. This approach enables increased construction efficiency by significantly reducing the number of crane lifts on the project, since both the edge beam and cladding panels can be installed in a single lift. The combined unit is storey-high, and leaves vertical window openings between the precast columns and the cladding panel edge.

Internally, the beams and columns will be left exposed to maximise the thermal capacity

of the concrete, and painted white in order to maximise the light levels, both factors contributing to the building's efficient energy management scheme. Off-site manufacture in carefully controlled factory conditions guarantees the quality and accurate workmanship befitting such a prominent building. The entirely precast solution was also specified for reasons of cost-efficiency and programme benefits. Trent Concrete was appointed for this £1.1m contract based on its work with the same professional team on the Inland Revenue Centre and the National College for School Leadership.

Architect:
Michael Hopkins
Partnership

Engineer:
Ove Arup & Partners

Contractor:
Wilmott Dixon

Precast: Trent Concrete
Structures

Developers see for themselves

Roger Bullivant Concrete Products has secured a contract for the supply and installation of precast products on a 650,000 ft² distribution centre at Barton Business Park, just off the A38 in Burton. The distribution centre for retail giant Argos Limited will create up to 500 jobs.

The contract was awarded following a visit by developers St. Modwens to the recently completed 250,000 ft² distribution centre for TK Maxx at Newcastle under Lyme (see picture). "Once the developers had seen the quality of the products, in particular Quickwall, they were happy to accept their use on the new development" said Trevor Howells, RB Concrete Products UK sales manager.

The £180,000 order for Quickwall retaining walls, Quickspan ground beams and dock levellers was for national



construction company Norwest Holst's Derby office. The 100ft high, £20 million development is part of an ongoing £120 million project by Argos to improve the chain from suppliers to customers and will be linked to the national rail network from the Barton Park site.

An even better view



Visitors and residents alike will enjoy an even better view following the replacement of parapets on the Minehead – Blue Anchor sea wall.

The 76 units, including 10 special seating units, have exposed aggregate limestone finishes on both the vertical and horizontal faces, further enhancing the improvement scheme in this popular Somerset resort.



Hanson Concrete Products supplied the units to W S Atkins acting on behalf of Somerset County Council.

Double Tees in demand for car parks



Tarmac Precast Concrete is currently involved in two contracts for multi-storey car parks in Leicestershire and Yorkshire.

A £1.1million design, manufacture, supply and erect contract for a new car park, will provide 6500m² of parking space for staff at the Leicestershire headquarters of a leading UK retailer.

Manufacture of the frame and double tee flooring began in September. Erection on site is scheduled to begin in November with completion, including structural screeds, in 12 weeks. Frame components are being manufactured at Tarmac's Henlade factory and the prestressed double tees are being produced at Tallington.

In a contract valued at £600k,

Tarmac is manufacturing frame components and double tees for a 3100m² multi-storey car park at Morley near Leeds (see picture). Work on site started in early October for completion in December. Main contractor is L Brown & Sons, and structural engineers are Jordan, Pritchard, Gorman of Leeds and architects are the Harris Partnership.

Paul Whitham, commercial manager for Tarmac Precast Concrete, commented that the benefits double tees can bring in providing long-span column-free space for multi-storey car parks are now being appreciated by architects and engineers. The cost savings in frame and substructure design and construction – which result from this lightweight solution – have also brought considerable benefits to developers. Tarmac expects to announce further awards before the end of the year.

Gambling on future success

The 26th of August was a special date for Ebor Concretes as the company celebrated 60 years of precast concrete manufacture.

To mark the occasion it sponsored both a race and a horse at Ripon's traditional Bank Holiday meeting and invited all employees and partners to join the celebration.

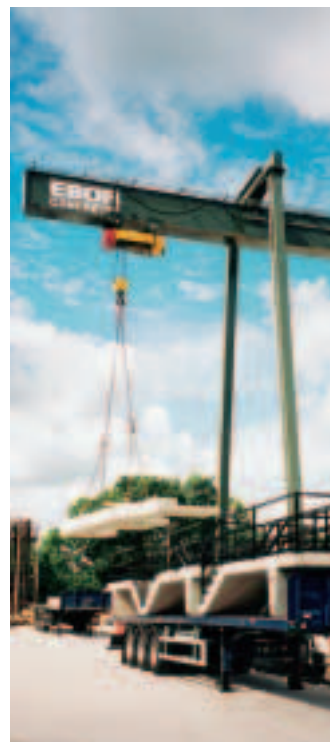
Despite partisan encouragement for 'Precaster', a three-year-old, the owner, Susan Milner, was not to be the recipient of the Diamond Anniversary Trophy presented to the winner by managing director of Ebor Concretes, husband John.

On the other hand, Ebor's substantial investment in new craneage during this anniversary year should not be such a gamble.

Installation, earlier in the year, of a new Goliath yard crane has increased storage area by 100%.

The main casting hall has also benefited from the welcome addition of a new ten-tonne overhead to supplement the existing overworked craneage.

Both cranes ensured the successful supply of stairs and terracing for the new 'Ebor' stand at York racecourse due to open for the 2003 season.



Summer 2002 correction

In the list of credits for the Bullring Project featured on page 3, Ove Arup was shown as the engineers when in fact they are the engineers for the Selfridges Project and the Waterman Partnership is the civil and structural engineering consultants for the whole development.

We apologise to the Waterman Partnership for this unfortunate omission.



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