



## Innovation To The Rescue!

**HBPW has again shown its ability to provide advanced and competitive design solutions, in an innovative £4m project to part of the new corporate headquarters for the Card Factory in Wakefield, West Yorkshire.**

Experienced Leeds based main contractor Jack Lunn Construction, recently won its bid to build the new corporate offices for the Yorkshire card retailer, following its earlier successful completion of a new build warehouse contract.

The team, led by Jack Lunn Construction's MD Stephen Bradbury, decided that the building's complex cantilevered design required additional specialist advice and appointed HBPW to design the complicated arrangement of steelwork and cladding.

Leeds based Architects, Loroc, had designed a cantilevered office pod with picture windows, over 3 storeys high, to provide

a focal point for the building, which is situated in a prominent roadside location on the Wakefield Junction 41 Industrial Estate just off the M1.

Managing Partner of HBPW, Paul Withers said: "When key members of the team realised the complexities of the design requirements, they called us in to design the supplementary steelwork to support the cantilever cladding required by the architect.

"This type of situation can arise from time to time and they usually call for innovative thinking and advanced design to overcome any problems."

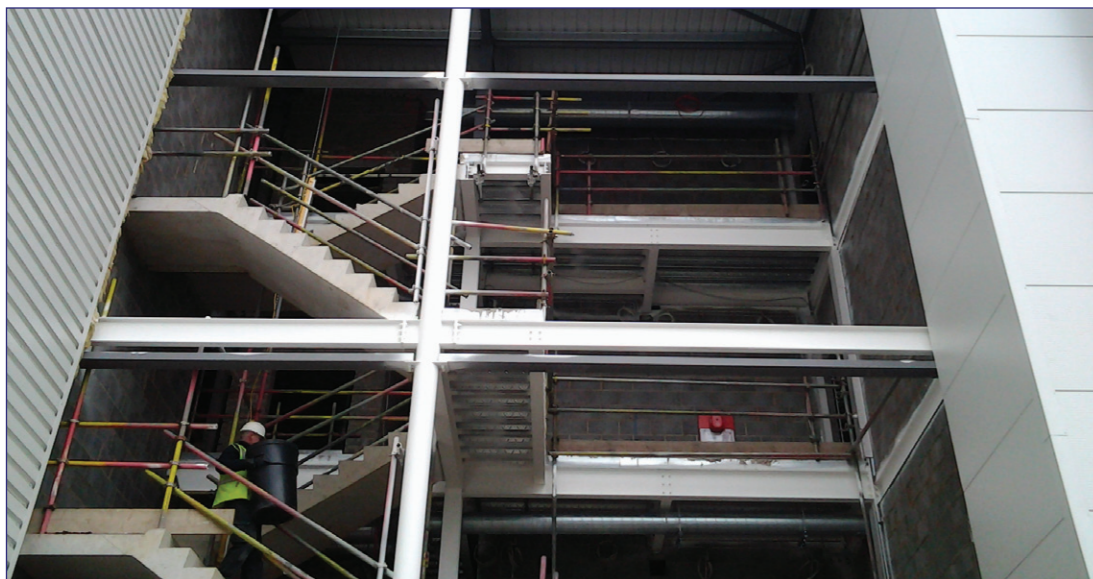
He added: "As well as delivering an innovative solution we also had to assess the capacity of the structure to support the new steelwork and cladding. However, despite some challenging moments, we found a workable solution and the development was able to continue without delay."

Managing Director of Jack Lunn, Stephen Bradbury added: "We have worked successfully with HBPW for many years and know the practice can deliver the kind of forward thinking needed in complex building design. They always provide the kind of sensible building solutions required by a main contractor."

Card Factory opened the doors to its first store, in Wakefield, in 1997. Since then the company has grown rapidly and now has over 650 shops across the country stretching from Inverness in Scotland to Penzance in the South.

Its ethos is to provide high quality cards and gifts at affordable prices and its positioning statement in the market created some raised eyebrows when it was first aired: "If it's the thought that counts, why do others charge so much?"

**Client:** Card Factory, Wakefield  
**Contractor:** Jack Lunn Construction Ltd



Building the new corporate offices for the Card Factory

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Greetings card giant, Wakefield based Card Factory is building a new corporate headquarters under the watchful eye of Lunn's MD, Stephen Bradbury, and we are delighted to have played our part in this prestigious development. Read about the 'forward thinking' solution we came up with.

Meanwhile there's a 'bagel' revolution going on in nearby Mexborough in the South of Yorkshire where Maple Leaf Bakeries have been installing a third manufacturing line. However, before production was able to increase to 90,000, bagels an hour, HBPW Partner, Emyr Parry, had to design an 1800 square metre mezzanine floor capable of taking the weight of new machinery. He completed his assignment with gusto but has vowed, never again, to eat a bagel!

Jay Fox, HBPW's Geoenvironmental Engineer, has also penned an interesting article on Sustainable Drainage Systems.

But if you want to expand on my opening paragraph about 'challenges', take a look at the Salford Crescent Railway Station job. It provided Emyr and myself with a few headaches but the result was well worth it, and we are delighted to have worked with both Network Rail and Buckingham Group Contracting Ltd yet again.

Enjoy the read.

**PAUL WITHERS**  
DIRECTOR  
HBPW CONSULTING

## Welcome



Paul Withers - Director

Dear Reader,

Moody's Investor Services may have decided to strip the UK of its AAA credit rating towards the end of February, however, for every challenge facing 11 Downing Street, we, in the engineering sector, can probably come up with an equivalent!

As we enter Spring it is slightly reassuring that both Persimmon and Bovis recently reported an increase in average selling prices, underlining the builders' continued recovery.

And, here at HBPW, we can only continue to say: "We're as busy as ever." The firm has closed some superb contracts recently and, in this edition, our work with long standing associates, Jack Lunn Construction, again underlines that there is still a lot to be positive about in the UK economy.

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## Salford Temporary Works Challenge



The site at Salford Crescent Railway

**Network Rail's £12m upgrade of Salford Crescent Railway Station resulted in one of HBPW's most challenging temporary works jobs to date.**

The mammoth project, which is being coordinated and constructed by Buckingham Group Contracting Ltd, is aimed at easing congestion at the small station, used by 1.5 million passengers a year and a key interchange point for trains entering Manchester.

HBPW Partner, Emyr Parry, who worked on the project alongside Managing Partner, Paul Withers, said: "It may only consist of a single island platform with a ticket office and waiting room. However, the station is located between the University's Peel Park Campus and the Frederick

Road Campus, meaning it is well used by students and in desperate need of expansion and development.

"We were tasked with reviewing and value engineering the proposed station design, and feeding back with guidance to the Engineer implementing those designs. We also carried out design of piling for the new canopies - and Category Three checking of piling - as well as designing the extensive and complicated temporary works."



The station upgrade in progress

As part of the scheme a new ticket office is being built at road level on University Road West, and a new footbridge will link the ticket office with platforms, with a new lift and steps to be installed from the footbridge.

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The existing waiting room will also be removed to provide more space, and a new platform canopy and seating will be installed as part of the initiative. Information screens and station announcement system are also being renewed and platforms lengthened in both directions.

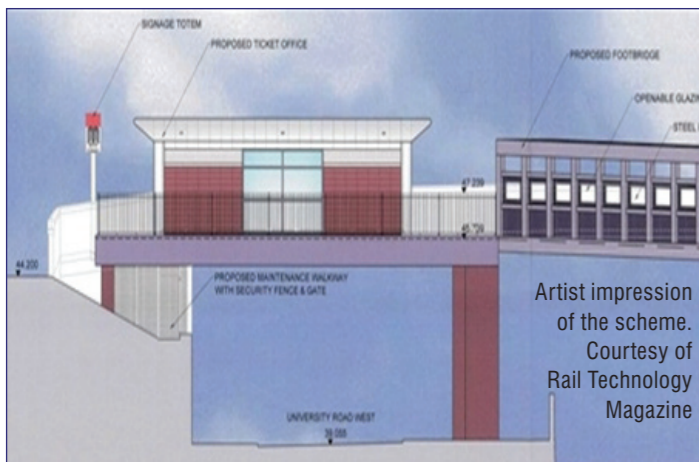
Emyr added: "The temporary works were particularly challenging with piling rigs supported on a virtual precipice and the ground retained by sheet piled walls tied with Platipus anchors. However, in the final event we were able to value engineer the design and optimise the scheme for Buckingham Group

and Network Rail."

According to Network Rail the station becomes very congested in peak periods, with large numbers of passengers waiting for trains mixing with those changing trains or leaving the station.

A key objective of the £12m project is to effectively de-clutter the station platform by relocating the ticket office and extending the platforms which will then accommodate longer trains as well as provide more space, on the platform, for passengers.

Work is expected to finish in early 2014 and the station will remain open throughout, added Emyr.



Artist impression of the scheme. Courtesy of Rail Technology Magazine

Client: Network Rail Contractor: Buckingham Group Contracting Ltd

## Fewer SUDS More Floods - Warning

Engineering teams need to be involving geoenvironmental specialists earlier in the drainage design and planning process, if fewer new and established residential areas are to fall victim to flash floods due to changing weather patterns.



Jay Fox

That's the stark warning from Jay Fox, HBPW's geoenvironmental engineer, who believes that Sustainable Drainage Systems (SUDS) will begin to play an increasingly large part in UK construction as 'global warming' remains high on the political agenda.

"In 2012 we saw the extremes of drought and flooding and, with the January snow, the ground was saturated to the point that there was nowhere for the water to go, hence we saw more and more flooding. Intense summer storms and prolonged winter rainfall are expected in the future.

"Whenever there is a storm event, or prolonged spell of rainfall, Britain's man made piped drainage systems – many of which are ageing and perhaps less well maintained than they used to be – cannot cope and quickly become overwhelmed. New ways of thinking are needed if this scenario is to change," said Jay.

He said that SUDS are set to be a significant contributor to winning the 'flood' battle. "SUDS aim to

mimic slower natural drainage to the ground. Water can be 'captured and slowed down' using a range of measures such as water butts, storage tanks, rain gardens, attenuation ponds, swales and permeable paving. Outfall to sewers or water course

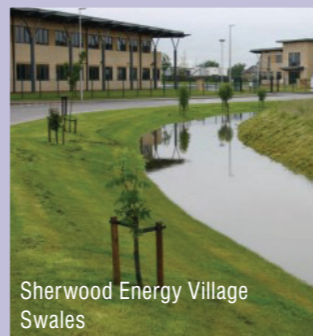
is then better controlled. "SUDS are being widely adopted, but design teams need to be involving geoenvironmental specialists like me earlier in the process as the properties of the ground, and contamination, are critical to design."

He said that it was rare for the ground's infiltration properties to be adequately assessed for outline SUDS design.

"Often developers commission localised infiltration tests for traditional surface water soakaways but not for SUDS features which extend over much larger areas. For instance, the ground may not be suitable for deep soakaways but is adequate for permeable paving etc.

"There are barriers to adopting SUDS such as integration with existing practices, design validation, regulation and agreeing responsibility for long-term maintenance of the system. However, there are also significant benefits in terms of biodiversity and community amenity and well being," said Jay.

"SUDS are the future for drainage design but I am not so sure that the Environment Agency 'build a snow man' thaw attenuation scheme will be quite so successful!"



Sherwood Energy Village Swales

## We're On The Way To Wembley!

HBPW's core expertise in rail engineering has resulted in a new client and the opportunity to design the temporary works for a £6m+ retail, residential and hotel development adjacent to Wembley Central station.

Main contractor Bowmer & Kirkland Ltd, were looking to partner up with a team of rail engineering experts when HBPW's name was put into the frame.

Associate Paul Jacklin takes up the story.

"Proposals are on the table for a major-five storey building above Wembley Central station featuring two levels of retail, two of residential housing and a Travelodge Hotel. This is the second phase of a major mixed-use scheme that will transform the four-acre site providing 175,000 sq ft of commercial space, 240 apartments, a hotel

and a multi-storey car park. Whilst Wembley Central is an 'overground' station operated by London Underground, it is below the station entrance and proposed development which sit at street level.

"We discovered that Bowmer and Kirkland were looking to work with a specialist and were delighted when they approached us with the Wembley Central project in mind.

"We have now been charged with designing the temporary works and technical submissions to Network Rail and, whilst major work has yet to commence at site, we have been at the drawing board since last December," said Paul.

The client is St Modwen Properties plc.

"We are pleased that HBPW's reputation is such that a third party was able to recommend us



The site for the new retail, residential and hotel development

to Bowmer & Kirkland who have shown their mark of faith in us by placing this contract with the firm. It is worth tens of thousands in fee and, hopefully, will result in a longer working relationship with this new partner," added Paul.

Temporary works are put in place during the construction process and provide a safe means for development work to be carried out.

"It is proposed to build a scaffold on top of the station concourse so part of our design work will have to ensure that the scaffolding is not only safe, but that its additional load can be borne as part of the temporary works," he added.

Client: St Modwen Properties plc Contractor: Bowmer & Kirkland Ltd

## Lots Of Dough For HBPW!



Client: Maple Leaf Bakeries Contractor: HB Projects Ltd

Above and inset: Preparing for the new bagel manufacturing line

Bagel production at one of the UK's leading bakery manufacturing centres is set to increase by 50% thanks to a joint project between HBPW and its sister company HB Projects Ltd.

Maple Leaf Bakeries on the Swinton Meadows Industrial Estate in Mexborough, South Yorkshire, have been installing a third bagel manufacturing line.

However, before production was able to increase from 60,000 bagels an hour to 90,000, HBPW Partner, Emyr Parry, had to design an 1800 square metre mezzanine floor in the existing production centre, capable of taking the weight of new machinery.

"Fortunately we have done a lot of work on this site over the last 10 years," said Emyr, "so we were very familiar with the environment. Past projects have included two extensions, one of which was a 12 metre cold

store to house bagels ahead of transportation to customers. Work in food environments has to be carefully planned because of the potential for contamination, however, our experience in this sector, and past knowledge of this site, helps enormously."

Mark Davies, Contracts Manager for HB Projects, said: "One of the biggest challenges with a project like this is the fact we are working in a live environment, and need to ensure that the build project does not affect the client operationally.

"This is a 24/7 operation so to achieve everything on budget and on time – approximately 40 weeks from start to finish – is testimony to all parties involved."

Maple Leaf Bakeries is a wholly owned subsidiary of Maple Leaf Foods and supplies both the retail and wholesale sectors including premier brands like M&S and McDonalds.