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# ISSUE FORTY SEVEN LBPWEENS ENGINEERS ENGI

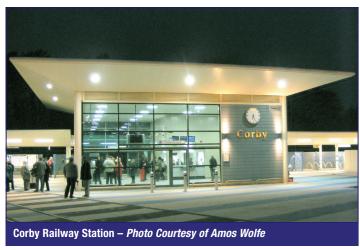








## Corby Extension Promotes Stronger London Link



More rail passengers can now get to London St Pancras at peak travel times using greener trains thanks to a 10.5m platform extension at Corby Rail Station in Northamptonshire.

Network Rail is carrying out its biggest upgrade to the Midland Main Line, which runs between London and Sheffield in Yorkshire, since it was first built in 1870, with an investment of more than £1bn.

And, as part of NR's programme, Corby station's single platform recently fell under the spotlight.

Engineer Nick Chia, said: "The wider programme of works is in response to rising demand and the Main Line upgrade, which will create a faster and more reliable network incorporates track realignment, station remodelling, platform lengthening, capacity works, bridge reconstructions and signalling works as well as electrification of the line from Bedford to Kettering and Corby.

"HBPW was asked to design the platform extension at Corby which has two lines, along with re-surfacing work and coper realignment. The changes are relatively small in the greater scheme of things; however, the impact is considerable by

"It means that Corby station can now play its part in supporting greener trains and increasing the number of seats an hour into London during peak times, making for more comfortable journeys for commuters, with less

Work was carried out at the southern end of the platform so that passengers and station users were not disrupted by the

Network Rail's Wendy Bell said: "As a key part of the wider Midland Main Line Upgrade, a significant amount of work has already been carried out to improve the

the railway in and around Corby. This latest work to lengthen the platform is an important element in the wider scheme to create a more modern railway capable of meeting future demand."

Jake Kelly, Managing Director for East Midlands Trains, said: "We are pleased to be working with Network Rail to deliver further improvements to the railway around Corby. This is all part of the huge programme of investment to improve the Midland Main Line route to London to provide customers with even better journeys."

The Midland Main Line is a crucial railway line between London and Sheffield, comprising lines from London's St Pancras station via Leicester, Derby/Nottingham and Chesterfield in the East Midlands.

Network Rail says passengers can look forward to a wide range of benefits as part of the continuing Midland Main Line upgrade, including more seats, quieter trains, and on the whole a more reliable and quicker service.

Client: Network Rail Contractor: AmcoGiffer



#### CONTINUED FROM PAGE 1

and, personally, I genuinely hope that people from every walk of life - construction sector included - choose to approach the future with renewed positivity in the run up to December when the terms of the final Brexit trade deal are known.

For now, life goes on and we continue to work on some great projects!

In this edition read about our 'glamorous' work on the East coast and the great things that are happening at Bridlington's best-known camping centre. South Cliff Holiday Park can barely cope with demand for its services and it is nice to know that we have played a part in such a great success story.

We've also had a brush with the Northern world of greyhounds and if footbridges are your thing, then check out the rather spectacular photos of the King's Mill Lane equestrian bridge in Nottinghamshire; impressive I'm sure you'll agree. However, engineering achievements to one side, our work has also played its part in making life for the horse fraternity and pedestrians much safer and that's got to be a good thing.

For now, please keep an eye on the HBPW blog to see what else we've been up to. (www.hbpw. co.uk).

Enjoy the read.

**PAUL WITHERS** MANAGING PARTNER **HBPW LLP** 

#### Welcome



Paul Withers - Managing Partner

As the company's elder statesman - I can formally claim this title now that I 'consult' on projects rather than taking the role of 'lead engineer' - I am delighted to report that the initial stage of Brexit has, at long last, concluded.

I make no claim to have either supported or opposed Brexit here is not the forum - however, I sincerely hope that wherever we find ourselves as a country over the coming months, it bodes well both for Britain, the wider UK. EU and, indeed, our friends in Eire as well, of course, the construction sector.

In many respects the flag waving and frowning, depending on your stance, passed on 31st January with our formal exit from the European Union.

Now, as cliched as it may sound, the challenge is for everyone to pull together

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#### Roxane's Gotta Lotta Bottle!



**CG Roxane's Bottling Plant** 

The 10,500 square metre extension to French multinational CG Roxane's bottling plant in Lichfield, Staffordshire, is now fully operational thanks to a successful partnership between **HBPW** and Sheffield based Jarvale Construction.

The company first entered the UK market nearly eight years ago, opening its £20m facility at Fradley Park in the Summer of 2012 using spring water from the village of Elmhurst 3km away.

Its tipple - branded as Cristaline - proved so popular that the



company decided on a major expansion at its eight-acre West Midlands site with the aim of tripling its already 68,000 bottles an hour output.

HBPW Associate, Shaun Strugnel, said: "It was a major undertaking when you consider what needed to happen within the new building, let alone from a construction and engineering perspective. Much of the new operation uses Artificial Intelligence and, as you can imagine, output is huge.

"This was a great partnership between Jarvale and us and it is professionally reassuring to know that we have both played such a key part in facilitating the major expansion of what is now one of the UK's largest bottling plants."

HBPW produced engineering drawings for the floor slab foundations and external works including drainage and hard standings.



Roxane has 40 production sites across Europe, a presence in 70 countries and 43% penetration of the French spring water market with its Cristaline brand. The company produces in the region of four billion bottles a year.

Client: CG Roxane

Contractor: Jarvale Construction



### £5m Conference Centre Targets Growth



One of South Yorkshire's finest hospitality facilities - the £5m **Owlerton Events & Conferencing** centre (OEC) - is expanding operations rapidly after months of hard work by engineers and construction experts.

Over a year ago HBPW completed phase one and two ground investigations as well as preparation of tender designs for the civil and structural elements of the scheme, ahead of contractors moving onto

Eighteen months on the project, backed by the owners of the adjacent Owlerton Greyhound Stadium, A & S Leisure Group Ltd, is complete

Partner Emyr Parry, said: "The OEC is a striking events and conferencing space unlike any other in the South Yorkshire area and is perfectly located in the heart of the UK with superb rail and road links as well as parking for 400 vehicles.

"There are now a range of impressive, multi-purpose suites, catering for up to 500 guests, and it is easy to appreciate that this will prove itself a valuable asset to the city of Sheffield."

As one of the largest entertaining and conference spaces in the city it has created in the region of 200 jobs.

"The OEC is a striking events and conferencing space"

Owlerton Managing Director John Gilburn said: "For some time Sheffield has lacked a venue with the flexibility that this one is now providing. This new facility will give us the ability to host weddings, conferences, large banquets, indoor sporting events and concerts."

Client: A & S Leisure Group Lt d Contractor: Harris CM



Conference Centre Suite



#### **Inside Out We're Turning It!**

The latest addition to **Immingham's Renewable Fuels** Terminal (IRFT) has required some creative lateral thinking as HBPW engineers seek to turn a building 'inside out'.....all in the cause of health and safety.

The incoming volume of combustible 'biomass' to the east coast port facility - things like sunflower seeds and wood pellets - is now so great that huge sheds are employed to store millions of tonnes of imported materials.



However, over time substances have to be moved around the site, normally on conveyors, which in turn deliver their load to waiting trains via the dock's rail load-out facility.

Managing Partner, Paul Withers, said: "As a result of increasing biomass volumes the IRFT is now having to increase the size of its existing lorry loading facility from one to two lanes.

"In designing the civils and producing the necessary drawings,



we have provided for not only double lorry lanes, but a new steel mesh grizzly onto which biomass is dumped so that it can filter through the gaps and onto the conveyors

But it is the new replacement building into which lorries drive to reach the 'grizzly' that has required careful thought.

Normally a building's structural steelwork is on the inside, however, in the case of Immingham Port this creates a potential problem. Dumped biomass produces dust which, in turn, gathers on ledges, those created by internal steel frames for example, and has to be cleaned off regularly, an expensive and difficult exercise.

"We had to think about all of this." said Paul, "because gathering

dust is a potential fire hazard and creates an explosive atmosphere. Consequently, by drawing on our experience at Peel Ports, we have produced drawings that enable the construction of the steel framing. columns and purlins, 'outside' the structure, so that we achieve smooth internal walls by placing cladding inside, thus removing any explosive threat.

"This is a multi-disciplinary project," added Paul, "that has required HBPW engineers to think laterally and around a range of challenges from dust extraction systems to catch pits, dust hazards and the possibility of explosion."

**Client:** Associated British Ports **Contractor:** Graham Construction

### Fluid Engineering Solution For King's Mill!

A joint project by HBPW and Network Rail (NR) has seen the completion of an impressive equestrian footbridge in Nottinghamshire signalling a new era of safety.

The original level rail crossing at King's Mill Lane, Sutton-in-Ashfield - a manually operated facility used by pedestrians and horse riders - was identified as a high-risk site because of its history of misuse, near misses and accidents.

So, Network Rail resolved to divert the bridleway as part of its Level Crossing Risk Reduction Programme (LCRRP), with the sole purpose of providing residents and other users with a safer means of crossing the railway



diverted route now crosses the railway by means of a ramped bridleway adjacent to the existing crossing; it has been designed and specified by HBPW but the multi million pounds project wasn't without its challenges.

Engineering Technician Jonathan

Bent takes up the story: "The

A birdseye view of the new King's Mill Lane crossing.

"During site investigations a culvert was discovered which crossed directly under two of the originally designed ramp foundations. prompting the need for a re-think,"

"The condition and extents of the culvert were unknown and it became apparent that we would not be able to accommodate additional loadings, resulting in the introduction of a bespoke longer ramp span that would bridge the culvert and allow foundations to be relocated away from it.

"Level crossings, like the old one at King's Mill Lane, were originally part of a network developed in the 19th century, when there were slower trains and the pace of life was also much slower. Now, however.

Lead engineer and HBPW Partner,

holidaymakers will be aware of this

well-known holiday park which has,

in some ways, timed this expansion

"As we have seen in the national

press, more and more Brits are

rates in the wake of Brexit. This

expansion positions East Riding

Yorkshire Council - who own South

Cliff - to take full advantage of any

additional tourism traffic. Majorca's

loss is potentially Bridlington's

now opting for a UK holiday rather

than run the risk of poor exchange

Emyr Parry, said: "Many British

offices

perfectly.

if you were to build a railway from scratch it would not have any level crossings other than in exceptional circumstances," added Jonathan.

Since the start of Network Rail's Level Crossing Risk Reduction Programme more than 1,000 have been improved.

The new footbridge means that pedestrians, cyclists and horse riders no longer have to cross the railway using the level-crossing but can now use the bridge instead. This provides a safer route and, because it is ramped, also caters for pushchairs as well as persons of restricted mobility.

Client: Network Rail Contractor: AmcoGiffen



#### 'Glam' Job Boosts East Coast Tourism



The new pitches at South Cliff Holiday Park

Engineers had to get to grips with the world of 'glamping', or glamorous camping, when they were asked to complete the drainage and external works design at one of Bridlington's best- known camping centres.

South Cliff Holiday Park, a firm favourite with thousands of British holidaymakers who pour into the East coast resort every year, has been expanded as part of a £7.75m scheme.

The work has seen the creation of 31 additional tent pitches, 15 new 'glamping' units, 48 more touring pitches and 132 additional static



pitches as well as 19 more lodges.

South Cliff - Artist's Impression

The contract for the work was awarded to Castleford based Interserve Construction who brought the project to fruition in There are also two new welfare less than a year. buildings and a new reception with

South Cliff, which already had 800 permanent static caravan pitches before the new work began, and an array of other 'camping' facilities, was at near 100% capacity; some pitches could have been sold several times over during the season and the Council had been praised by independent consultants for its profitable operation of the facility.

"HBPW provided all the civil and structural design support to Interserve," added Emyr Parry, "and apart from being delighted to have an association with such a prestigious east coast holiday brand, it is pleasing to note that the wider Bridlington economy is set to experience an additional 158,280 visits because of this expansion, and that will represent an estimated increase in visitor spend of around £4.2m in the local economy."

**Client:** East Riding of Yorkshire Council **Contractor:** Interserve Construction Ltd