



HBPW Bridge Is Re-dedicated To WW1 War Hero



Early Stage Construction

A bridge designed by HBPW has been re-dedicated to a World War One hero who saved the lives of 12 women following an explosion at a Leeds munitions factory in December 1916.

The devastation at the purpose-built shell-filling factory in nearby Cross Gates, claimed the lives of 35 women, known locally as 'Barnbow Lasses', who were identified by name tags.

"There is now a plaque in place that will serve as an on-going reminder to motorists and passers-by of the bravery of one man who was not only key to saving the lives of 12 women but preserving subsequent generations of their families."

The bridge now plays its part in enabling residential traffic from the old Vickers site at Cross Gates – earmarked for houses – to access key highways in the area and will ultimately form part of the East Leeds Orbital Route

It has a 29m span and, whilst currently crossing two rail tracks, was designed with a further two in mind which may result from future upgrades of the Trans Pennine line.

Background courtesy of: <https://www.bbc.co.uk/news/uk-england-leeds-50686908>



The Barnbow Lasses

The accident was not made public, but death notices referencing the explosion did appear in local newspapers with full facts only emerging six years after the war ended.

Although many armaments production sites were pre-war factories that had been converted to manufacture munitions, Barnbow was built during World War One specifically to fill shells for supply to the Western Front. It became the most productive British shell factory and had its own railway sidings used to transport both staff and supplies.

The Barnbow Lasses earned around £3 per week but could also receive 'danger money' of up to £12 if they were handling explosives.

HBPW Partner, Jon Livesey, the engineer behind the original bridge scheme, said: "This is such a worthy dedication and the perfect tribute to a local hero.



Local Hero William Parkin

The William Parkin Bridge – originally known as Manston Lane Link Road Railway Bridge – spans the Leeds to Hull rail line and was instrumental in opening large tranches of residential development land to the east of the city.

However, it will take on a life beyond the nuts and bolts that now keep the impressive structure in place, thanks to its re-dedication to Parkin, a mechanic who selflessly clambered across rubble to one by one drag 12 women to safety following the tragic explosion.

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with a completely different way of working. However, if the ability to change is the standard by which companies will now be judged, then top marks to everyone at this end: they've all risen to the change challenge!

I am delighted to report that most of them have now returned to our Retford offices – complete with social distancing and copious amounts of handwash - and I cannot commend them highly enough for the way in which they have all risen to the occasion by getting to grips with home / remote working.

Now that our marketing team is 'back in the saddle' so to speak, take a look at some of the great projects that we continue to work on and, if nothing else, check out Jon Livesey's story about the bridge in Leeds and the amazing man after whom it has been dedicated. An example to us all.

For now, please keep an eye on the HBPW blog – it's back! - 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

The words 'where should I start' come to mind! If you failed to receive our July newsletter, or noticed that our monthly blogs were a little thin on the ground between April and June, it's because both had been put on hold whilst HBPW, and the rest of the world, got to grips with Coronavirus!

It's been a mad few weeks but, if every cloud has a silver lining, then my 'win' has been learning the joys of Zoom calls and, somewhat belatedly, how to use Microsoft Word and spellchecker! An IT demon I am not, but a devotee of new technology I have 'almost' become!

The Covid-19 period has been about adjusting to the 'new normal' and coming to terms

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Hebden Station Welcomes Minority Groups



Historic Hebden Bridge Station

One of Yorkshire's most famous beauty spots is now extending an even bigger welcome to Persons of Reduced Mobility (PRM) thanks to a major Network Rail initiative in which HBPW has played its vital part.

Hebden Bridge in West Yorkshire is a tourist hotspot and has been featured nationally and internationally as 'Little San Francisco'.

However, its outdated rail station has up to now, meant that certain groups within the population – the elderly infirm, mothers with prams and PRMs – were disadvantaged in terms of not being able to properly use the facility.

Partner Paul Monaghan, said: "As with many old stations across the UK, Hebden Bridge station simply had steps to one side of the platform descending to an underpass, with just a ramp



One Of The New 16 Person Lifts

leading to the other platform which is fine if you have no mobility issues be they infirmity, carrying kids or pushing a pram.

"There were also two parcel lifts – little more than manually operated dumb waiters for moving mail sacks – however, in the absence of comprehensive lift access lots of people were being excluded creating the scenario where some individuals – unable to physically use Hebden Bridge station – had to travel to the next stop then take either a train or a taxi back."

The West Yorkshire station was identified as one of over 200 priority sites selected for improvements as part of the Great North Rail Project with one of the key aims being to construct two new lift shafts designed to provide step-free access to platforms.

"We demolished the old parcel lifts, using the resulting spaces to create two new 16 person lifts either side of the track," said Paul.

However, this element of the project was just part of a wider programme of improvements that are now enabling customers travelling through Calder Valley to benefit from longer trains, thanks



Hebden Bridge Station In 1951
Photo Courtesy Of www.disused-stations.org.uk

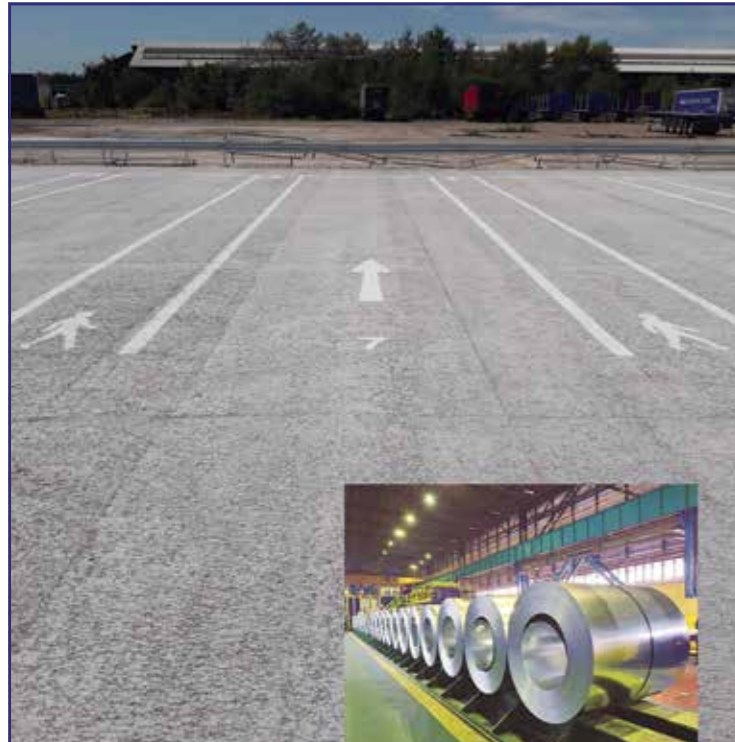
to extended platform length, step free access, an additional 46 car parking spaces and more reliable journeys.

"HBPW also played its part in upgrading the underpass running between the two platforms, and a raft of new signage means that Hebden Bridge station has not only been given a new lease of life, but will support, brilliantly, people from all walks of society visiting this scenic part of West Yorkshire," added Paul Monaghan.

Client: Network Rail
Contractor: Buckingham Group

Tata To Steel As Concrete Flows!

It may be one of the world's largest producers of steel but Tata's Northamptonshire plant in Corby, had a very different requirement... concrete and lots of it!



Tata's Plant In Coventry

The huge operation, which supplies much of the UK's steel requirement, is visited every day by dozens of heavy goods vehicles which have a huge impact on the site.

HBPW engineer, Tom Flint, said: "These lorries are substantial because of the nature of what they are required to carry.

"Until recently drivers entering the Corby site were asked to park up on what to all intents and purposes, was a smashed up concrete area, once home to an old shed measuring approximately 150m x 62m."

However, management realised that it was not a long-term solution and decided to give the area a new lease of life.

"We asked HBPW's drone pilot, Will Withers, to carry out a topographical survey of the site ahead of any work

"These lorries are substantial"

starting so that we knew exactly what we were dealing with," said Tom.

"We then produced drawings and calculations to support the new hard standing area, along with the necessary drainage requirements, ahead of working with Tarmac to overcome the practicalities of laying concrete."

Around 6,780 tonnes of roller compacted concrete was used to complete the job.

"This is a particularly dry mix and, once laid in strips by a road paver, it dries very quickly meaning it can also be loaded quickly, ideal in industrial environments where there may be heavy, slow moving vehicles. We achieved a great outcome"

Client: Tata Steel

Contractor: Tarmac Infrastructure



6,780 Tonnes Of Concrete!

21st Century Makeover For Victorian Structure



The Sheffield & South Yorkshire Navigation Bridge

A South Yorkshire bridge that originally came to life when the rail revolution was still in its infancy, is set to get a modern day makeover more than 150 years after Victorian engineers first cut the red ribbon.

The Sheffield & South Yorkshire Navigation Bridge, so named because it crosses a canal of the same name, is located in Mexborough, midway between Doncaster and Rotherham.

It is a single span overbridge which carries the twin tracks of the Barnsley Branch passenger and freight line, over the canal which runs beneath and alongside the River Don.

However, inspections showed that the structure was rapidly nearing the end of its natural life and that

remedial work was required to bring it up to modern standards.

Engineer Ross Hardy takes up the story. "The structure comprises three distinct sections including the original but now largely redundant stone arch, which was built around 1850.

"The central section, constructed 30-40 years later, consists of five,



Longitudinal Plate Girders

"In some ways the challenge was straightforward"

varying in length and height, wrought iron longitudinal plate girders which support transverse timber deck. Allied to this, and also built pre 1892, is a side bridge that carries a foot access to the towpath for the canal."

He said that it was complex combination but, in some ways, the challenge was straightforward.

"A bridge has to be capable of supporting its own structure as well as traffic passing over it, be it cars, trains, pedestrians or a combination of each. In this case we had a structure that could support itself but was shown to be lacking in bearing capacity meaning remedial action was vital.

"That has meant developing an engineering plan to remove the five longitudinal plate girders and timber deck in order to replace them with a new steel and concrete composite deck."

The new deck, made up of two 'modules', each featuring two longitudinal steel plate girders connecting into new concrete deck slabs, will be dropped into place

sometime between February and March next year.

"The prefabricated deck modules will be lifted individually and joined together during possession with a longitudinal 'stitch' of fast curing concrete," said Ross. "The original abutments will also be used since they have a much longer shelf life and can last hundreds of years."



The Barnsley Line

The existing arch span will be waterproofed and new deck end drainage installed at either side of the structure with drainage discharging into new soakaways.

"Masonry repairs will be carried out to the existing abutments and the new works are designed to have a shelf life of 120 years as well as being free from major maintenance for a minimum of 25 years," added Ross.

Client: Network Rail

Contractor: AmcoGiffen

Cottingham Bridge – New Lease Of Life

Victorian engineering is playing its part in ensuring that Northampton traffic keeps moving, with the opening of a new bridge guaranteed to bolster commuter confidence for another century!

Cottingham Road overbridge in Northamptonshire carries traffic and pedestrians across the Midland mainline.

However, the Victorian structure, originally built in the late 19th or early 20th century, had reached the end of its natural life and was also unsuited to Network Rail's wider plans for line electrification.

Engineer Nick Chia takes up the story: "Electrification requires that bridges are of a certain height but the existing masonry arch structure at Cottingham Road was not high



New Bridge Sits On The Old Victorian Abutments



A New Start For Commuters

enough. However, due to the nature of its construction, it was not simply a case of raising the height. Instead the entire bridge had to be demolished and replaced with a Network Rail standard concrete arch bridge."

The line was closed for 72 hours whilst Amco contractors, supported by HBPW engineers, carried out the replacement work.

"The original Victorian abutments were utilised, enabling the two ends of the new structure to 'sit' on part of the old bridge. The new structure has a design life of 120 years so I think it is safe to say that the bridge will be there long after I'm gone!"

Client: Network Rail

Contractor: AmcoGiffen

Builders' Merchant Looks To HBPW For Building Advice

One of the largest builders' merchants in the UK has been using the services of HBPW to facilitate its own continuing expansion.

Travis Perkins plc is a builders' merchant and home improvement retailer based in Northampton. It is also listed on the London Stock Exchange.

Contractor Faircloth asked HBPW to provide engineering support for the development of a new trade and retail outlet in Weybridge, London,

Senior Engineer Shaun Strugnell, said: "In order to create the 'space' for the new 47m x 19m single storey structure, we had to first demolish an existing building, once used as a former coachworks.

"We then had to carry out work to the party wall to ensure that it was secure and that the adjacent building was not compromised in any way."



New Trade And Retail Outlet In Weybridge

HBPW provided drawings for the steel frame of the building, foundations, external yard and drainage areas.

"In the wider scale of HBPW's

portfolio of work this is probably one of our smaller jobs, however, it has involved working with a member company of the FTSE 250 Index so the gravitas and

importance of this client cannot be under-estimated.

"Quality companies of this standing have a reputation to protect so we like to think they choose contractors and engineers they know will deliver, hence why HBPW continues to work with some of the largest retail brands in the UK."

Client: Travis Perkins plc

Contractor: Faircloth



The New 47m x 19m Structure