Somerset Gets The HBPW Treatment

"Firepool is a curved multi span plate girder bridge – making for a more complex design – and will cross both the River Tone and the Bridgewater & Taunton Canal.

"Kingston Loop bridge is a more modest structure," added Dian, "and is centred on a disused railway bridge which is very much part of the local landscape. Visually it will remain as it always has, with the original Victorian steel side girders left in place and refurbished as part of the scheme. However, a pre cast beam deck will be introduced between the existing girders to carry the new NIDR highway."

HBPW is exploring a value engineering opportunity of reusing the existing masonry abutments in place of the current scheme proposal which involves the construction of large new piled abutments.

Client: Somerset County Council
Contractor: Carillion plc

It’s been a blistering summer, England retained the Ashes and the new Governor of the Bank of England has promised that he will keep interest rates low until the economy has recovered….how much better can it get?

I might be getting a little carried away, however, for the moment, it was good to hear Mark Carney’s comments when he addressed the owners of small and medium sized businesses in HBPW’s own ‘back yard’, Nottingham University.

“The knowledge that interest rates will stay low until the recovery is well established should give greater confidence to households to spend responsibly and businesses to invest wisely,” Mc Carney told the East Midlands gathering.

Hopefully those comments will hopefully, be there for centuries to come,” added Paul. Nathan Godley, Design Manager with the Buckingham Group added. “BGCL were approached with the Buckingham concept also meant it was possible to complete the station walls - along with a detailed study of the local ground conditions – an alternative wall strengthening design was formulated which used the existing foundations,” said HBPW Managing Partner, Paul Withers. Working alongside geoenvironmental engineer, Jay Fox, the revised engineering approach took considerable cost out of materials and construction costs.

"By looking at the original foundation drawings, available soils information and undertaking a targeted ground investigation, we were able to demonstrate that the soils below the foundations were strong enough to support the additional loading of a new, thickened wall on the same foundations, negating the need for the large steelwork frame."

“Permanent design had been formulated involving the construction of a large steelwork frame, however, as a result of analysing the original Victorian engineering drawings for the station walls...”

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One of Britain’s more unusual restaurants is in full swing – quite literally – thanks to the endeavours of HBPW’s engineering team. A unique bridge structure on the River Hull now houses a restaurant whereby diners can enjoy their meals, as the swing bridge ‘restaurant’ opens to allow vessels through.

HBPW and A. Tom Construction worked closely on the design and build project to provide foundations to the hub of the footbridge and separate protection structures to fend off errant river traffic. This involved driving piles deep into the riverbed, along with a complicated reinforced pile cap, all detailed to achieve the tight deflection limits specified in the design of the bridge superstructure.

HBPW also designed extensive reinforced concrete walls to support landscaping works on both river banks. Close to Hull’s sea life tourist attraction, The Deep, the structure, which looks like a giant comma with the leg of the comma going over the river, is now one of the city’s more unusual landmarks.

**Come Dine With Us!**

HBPW’s expertise in geotechnical engineering has been playing a major part in a £27m road scheme, which will see the construction of two huge arches across the Red River Valley in Cornwall.

The Camborne to Pool to Redruth project (CPR), which has already been under development for more than eight years, is being built by Carillion Civil Engineering on behalf of Cornwall Council. And, as part of the project, two 12 metre span pre-cast concrete arches will be built across the Red River and adjacent Chapel Road close to South Crofty Mine.

Geoenvironmental Engineer, Jay Fox, said: “The geological setting of the bridge is complicated in that it is located, partially, on the Great Crossing, a heavily mineralised fault zone. Consequently the area has been extensively mined over the decades, leaving scheme developers with the added headache of a complicated tin mining legacy.”

The primary complications involved constructing foundations over fractured rock and around underground adits and shafts which governed where, and how, the bridge could be constructed. Jay’s job was to look at everything below ground level.

**HBPW Innovation For Cornwall Tin Mines**

“Risk assessment and mitigation with regards to radon is, however, already a legal requirement for employers, social landlords and property developers, and is becoming more robustly regulated. Homeowners, buying or selling property in radon affected areas may also need to deal with radon issues during conveyancing.”

Under the Health and Safety at Work Act 1974, all employers are responsible for ensuring the health and safety of employees and others who access their workplace. The Management of Health and Safety at Work Regulations 1999 also requires the assessment of health and safety risks, which include Radon, under the following circumstances:

1. All workplaces located in Radon affected areas; and
2. All occupied (for more than 52 hours a year) below ground workplaces in the UK.

“The reality is that many employers don’t fully understand the risks and many are not fulfilling their legal obligations. This needs to change before there are yet more unnecessary cases of lung cancer.”

Jay can advise on all aspects of risk assessment and can be contacted on j.fox@hbpwconsulting.co.uk

**The Silent Killer HBPW Radon Warning**

Above: Red River Bridge & the CPR Route

**Come Dine With Us!**

**The bridge structure and restaurant by day, and by night**

**The Silent Killer HBPW Radon Warning**

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