



## The Nuttiest Job In Town!



Cerealto Main Manufacturing Plant

**A huge biscuit manufacturing plant the size of three football pitches, will soon be in full production thanks to major input by the HBPW engineering team.**

Cerealto, which has operations in Portugal, Italy, Spain, Mexico and the United States, has a 20-year heritage of producing innovative, top quality cereal-based products from biscuits and cakes to baby food and pasta.

In late 2016 they started the phased opening of a new factory on part of the Gateford Industrial Estate at Claylands Avenue in Worksop, creating new jobs and the company's first UK presence.

Since then, and largely due to customer demand, management decided to expand an existing cereal bar line to include nut production.

However, 'nut' legislation meant that if they wanted to take the business in this new direction,

they would also have to segregate this area of the factory, which is what they have done. Engineer Roy Bailie takes up the story.

"Most people are aware of the huge implications of nut allergens for people with this type of allergy, hence why legislation exists to ensure that manufacturers separate any aspect of nut production from other mainstream manufacturing. Biscuits are a case in point.

"As a design team we developed a new layout to incorporate the business's new requirements, providing steel structures that allowed segregated access by employees to the production line, now housed in the new massive 275m x 104m factory.

"It really is impressive," said Roy. "We were required to design a new goods-in warehouse and additional welfare facilities, for people working on an existing production line, which will soon be put to new use for the

manufacture of cereal bars with nuts," he added.

"Nut allergens have always had huge implications for food manufacture, so this particular job was all about segregation, keeping traditional production separate from those nut aspects of Cerealto's food production. It was challenging but I know that the combined efforts of all involved have come up with some great solutions," said Roy.

**Client:** Cerealto

**Contractor:** Tolent



A Taste For Biscuits

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All said, it is not entirely a shock to read these statistics considering some of the pressures industry brings to bear on its professionals with things like deadlines, heavy workloads and the added pressure of high-responsibility decision-making which can lead to sleepless nights and worry.

It is vital, therefore, that senior managers do not dismiss or side-line such an important issue, and equally important that we all heighten our sense of awareness so that we remain vigilant for our colleagues' welfare.

Meanwhile, it's been another busy period since our last edition and, as always, we continue to work on some amazing projects, none less so than Bardon Hill Quarry but, this month, we thought we would tell you a little more about our amazing multi-cultural workforce. It's one of the buzz topics in the sector and we are proud to report that almost 25% of the HBPW workforce originates from outside the UK. I think it's fair to say that we are getting this one right and I'm pleased about that!

For now we continue to work on some great projects so please keep an eye on the HBPW blog to see what we've been up to ([www.hbpw.co.uk](http://www.hbpw.co.uk)).

**PAUL WITHERS**  
MANAGING PARTNER  
HBPW LLP

## Welcome



Paul Withers - Managing Partner

Life, it would seem, is a continuing balance between personal responsibility and third-party intervention.

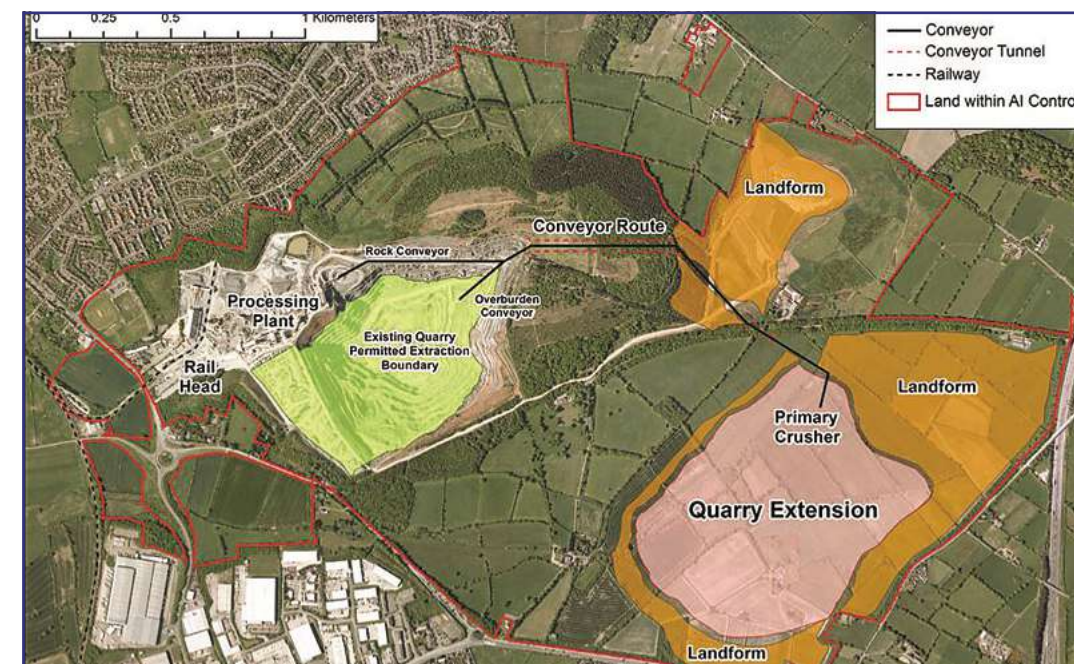
I couldn't help reading in New Civil Engineer recently how contractor, Barhale, is running a mental health awareness programme for staff in the face of shocking statistics about mental health in the construction industry.

Experts say one in four of us will experience a mental health problem in any given year, working days lost to stress have increased by 24% in the last six years and suicide is, apparently, the biggest cause of death for men under the age of 45.

It goes without saying, therefore, that this positive intervention by a major contractor is to be applauded because mental health is the silent killer, the 'we must not talk about it' elephant in the room

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## Boring Job? Not A Bit Of It!



Bardon Quarry Aerial Map

**HBPW Geotechnics is playing its part in keeping one of Britain's most important stone quarries working at full tilt until the middle of this century and beyond.**

Bardon Hill Quarry in Leicestershire has been operational for more than 150 years, but remaining permitted reserves within the current 74 acres site will be exhausted by summer 2020.

However, thanks to an approved expansion programme, the rail-linked facility, considered to be of national economic importance, is on course to triple in size, ensuring its future for another four decades.

Graduate Engineer, Edward Needham said: "Bardon Hill is responsible for the distribution of more than three million tonnes of



Bardon Quarry

crushed rock every year, with a further 142m tonnes of reserves in an area just half a kilometre from the existing site.

"But before this can be quarried over the next 40 years, a Primary Crusher Building needs to be erected at the base of the new development area so that output can make its way to the existing site's processing facility via a series of conveyor belts and transfer towers."

HBPW has designed the civils infrastructure to support the new conveyor system, transfer towers and associated facilities.

"This structure not only includes a mineral conveyor for the primary quarry product, but an additional conveyor to transport 'over-burden' or waste material, back to the original quarrying area for use as fill.

"One of the transfer towers will effectively bridge these two separate conveyors and from a geotechnics perspective, we have been drilling boreholes to a depth of approximately 30m at the base of where the particular transfer tower will be located.

"The ideal location for the tower has, of course, already been identified, however, we need to be sure that the ground is not only suitable to take the structure, but also able to bear the necessary tower weight, hence the borehole investigations.

"Assuming it is, then our Point Load Tests will also provide HBPW's civils team with the necessary information to complete the various structural engineering designs.

"This whole process is key to the success of the entire project and, as with so many major civil engineering projects, geotechnics plays a major part in ensuring that ground conditions are capable of supporting large ambitions!"

**Client:** Aggregate Industries  
**Contractor:** Dawnus



“...more comfortable....but they seem to perform less well.”

# Mammoth Bridge Frees Up Residential Land



Mammoth Bridge At Thorpe Park

As one of Leeds' longest established business parks enters its next phase of development, HBPW is poised to deliver a piece of engineering that will be instrumental to the release of large tranches of residential development land.

Thorpe Park on the outskirts of the West Yorkshire city is located between Whitkirk and Swillington and has been under development for more than two decades.

It is already well-known for the Thorpe Park Hotel, one of the region's key wedding venues, as well as office space, however, plans are now well in hand to create more commercial space over the coming years including a cinema complex and retail space for the likes of Next.

Partner, Jon Livesey, said: "Thorpe Park Developments Ltd (TPDL), who are behind the business park, are also leading the development of a major dual carriageway which will

ultimately form part of the East Leeds Orbital Route (ELOR) once it has been adopted by Leeds City Council.

"As part of this wider phase, TPDL has employed the services of contractor, Galliford Try to construct a new bridge over the Leeds to Hull railway line on what is currently a large area of land to the east of Cross Gates.

"Once complete the bridge will play a key role in enabling residential traffic from the old Vickers site

at Cross Gates – earmarked for houses but not yet developed – to access the ELOR and other key highways in the area.

"It goes without saying that the bridge is not only key to the future development of Thorpe Park Business Park, but also the city council's residential strategy for East Leeds.

"It has a 29m span and uses integral prestressed W-beams, with reinforced concrete abutments, to

form a large portal frame. Whilst currently crossing two tracks the bridge has been designed with a further two in mind which may result from future upgrades of the Trans Pennine line. The bridge will carry a dual carriageway and cycleways to both sides so at 28m wide, it's almost as wide as it is long – it's a big bridge!" added Jon.

HBPW has worked closely with Galliford Try to optimise design whilst also identifying efficiencies throughout the design process.

"A fully developed solution was provided at tender stage but through some minor design tweaks and some re-analysis, we have managed to remove approximately 40 tonnes of reinforcement from the design. Another example of value engineering."



Aerial View Of The Development

Client: Thorpe Park Developments Limited  
Contractor: Galliford Try

# Breaking Up Bias By Example

Almost a quarter of HBPW's workforce was born outside the UK, with at least three individuals from Wales and Northern Ireland.

And, at a time when societal pressure is keen to encourage more diverse teams, management can claim to be doing more than most to redress the diversity balance.

"We may not be perfect," says Partner Jon Livesey, "but you would go a long way to find such diversity in a company where there are just 33 staff, 8 of whom were born outside the United Kingdom.

"It would be nice to see more female engineers – we currently have just one – however, that will change over time as more come through the ranks of what has traditionally been a male dominated profession."

Countries represented in HBPW's workforce include Greece, Russia, Sri Lanka, Malawi, Egypt, Malaysia, Poland, Wales, Ireland and, of course, England.

According to research from the Massachusetts Institute of Technology (MIT) studies have shown that non-diverse workplaces can be happier and display more co-operation among employees, but despite this, do not match up to the performance of more diverse teams.

MIT economist Sara Ellison, said: "...higher levels of social capital are not important enough to cause those offices to perform better. Employees might be happier.... more comfortable....but they seem to perform less well."

"HBPW is an exceptionally busy firm and, quite frankly, we don't have time for discrimination!" added Jon Livesey. "We get some of the best applicants and if they are competent that is enough, irrespective of sex, race, religion or language."

Recently mechanical engineer Yassmin Abdel-Magied, founder of Youth Without Borders, has been championing diversity in the work place, especially in the engineering sector.

She told New Civil Engineer magazine that when people had similar backgrounds and training, they looked to each other to confirm what they already thought. That, she contested, led to bad outcomes.

"Yassmin Abdel-Magied has a point," added Jon. "Here, and I

can only speak for HBPW, there really are a range of diverse views and, culturally speaking, certain cultures say what they are thinking in a way that people from the UK often flower language for fear of hurting someone's feelings and that can lead to ambiguity or misinterpretation.

"That diversity of culture undoubtedly enhances the working environment and makes for a healthier set of decisions based on honesty, directness and different perspectives," he added.



YASSMIN ABDEL-MAGIED



EGYPT



GREECE



MALAWI



MALAYSIA



POLAND



RUSSIA.



SRI LANKA



WALES



UNITED KINGDOM

