BRITPAVE NEWS

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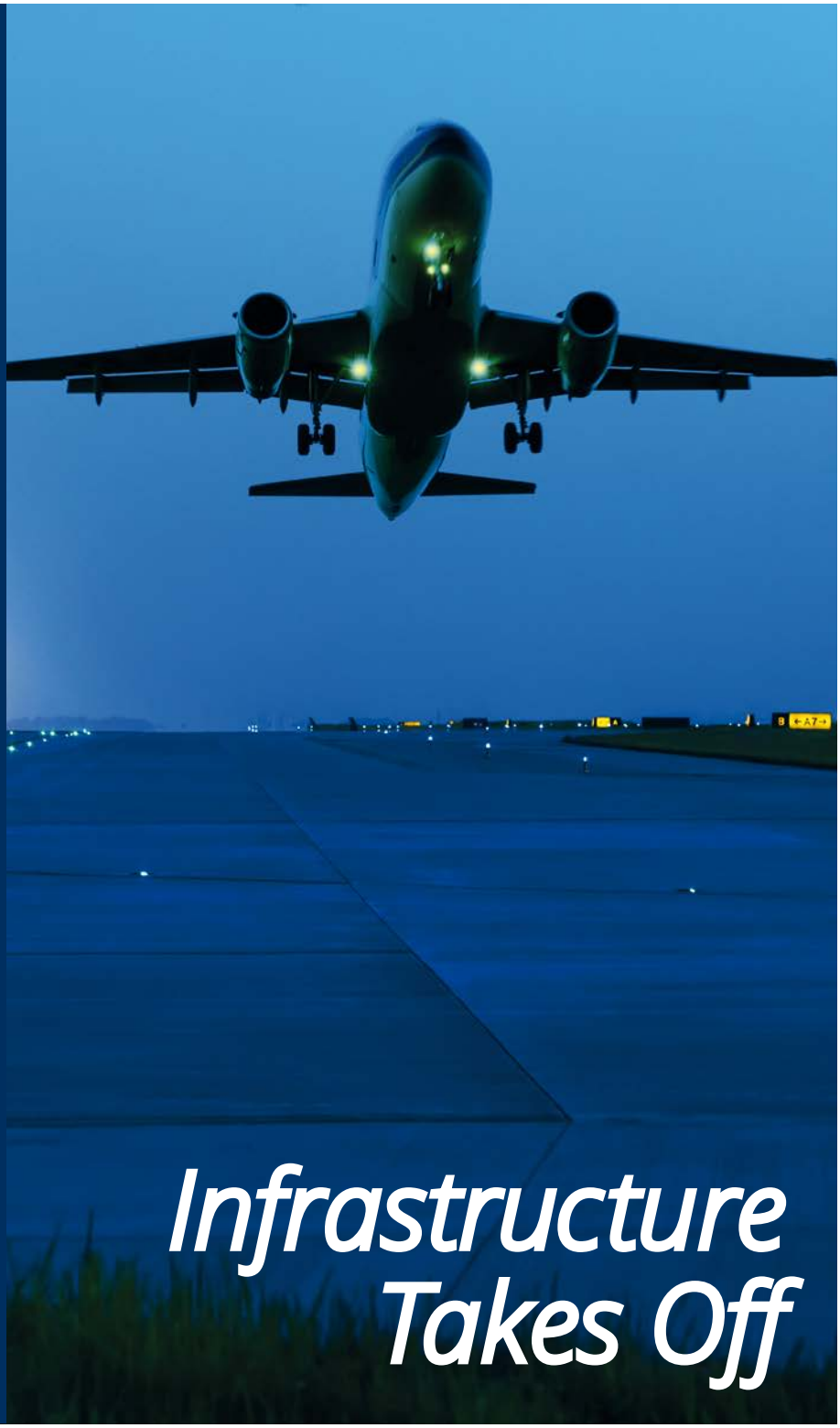


Infrastructure Takes Off

britpave
The British Cementitious Paving Association

www.britpave.org.uk

IN THIS ISSUE:

EDITOR'S NOTE

Time to deliver

Welcome to the Spring 2016 issue of Britpave News. Spring is usually the time for green shoots of growth. Could it be that we are seeing such promise of growth for infrastructure? Certainly, announcements in the National Infrastructure Delivery Plan and the 2016 Budget give real grounds for optimism. This optimism is underlined by new growth forecasts from industry organisations such as the Construction Product Association.

The question is what can the industry do to capitalise on the current appetite for infrastructure investment? What can the industry do to make sure it delivers? The answers will be examined at the Britpave industry seminar to be held on 6th October at Jurys Inn, Birmingham. The seminar will be followed by the Britpave annual dinner. Further details are to be found in this issue.

Also in this issue is a round-up of what Britpave is doing to further infrastructure construction standards and best practice plus a range of Britpave members' projects and plant investment that demonstrate that they have the experience, expertise and ability to deliver.

I hope that you enjoy this issue of Britpave News.

Steve Elliott
Britpave General Manager

Britpave, the British In-situ Cementitious Paving Association, promotes the better and greater use of concrete and insitu cementitious infrastructure solutions. Its members include major contractors, specialist equipment and material suppliers, consulting engineers and interested trade associations. Together, they provide a single voice for the insitu concrete paving industry.

Britpave News is published regularly by Britpave with the aim of keeping members up to date on Association matters, industry developments and member company news and views. Please help keep us in the picture on all of this by sending us any relevant information that you feel may be of interest to the membership.

NATIONAL INFRASTRUCTURE DELIVERY PLAN WELCOMED

The Government has published its National Infrastructure Delivery Plan (NIDP). The Plan brings together and summarises the Government's infrastructure ambitions for the current parliament. It includes roads, rail, airports and ports and also includes housing for the first time. Conspicuous by their absence are plans for a hub airport in the South East.

Included within NIDP is the latest version of the National Infrastructure Pipeline which highlights over £425 billion planned investment in over 600 major projects up to 2020-21 and beyond. There is a welcomed focus on delivery.

In addition, the Government has also published a new Construction Strategy that commits to reducing the cost of projects by £1.7 billion using innovation and efficiency. The publication of the NIDP and Construction Strategy provides greater confidence that the proposed projects will become a reality. This allows the infrastructure industry to plan, develop and allocate the necessary resources to enable delivery – which is the theme of this year's Britpave Industry Seminar (see below).

BRITPAVE 2016 INDUSTRY SEMINAR AND DINNER

Britpave's key event, its annual industry seminar and dinner, will be held on Thursday 6th October at the Jurys Inn, Birmingham.

The afternoon seminar will be examining the issues behind 'Infrastructure Delivery' and will hear from a range of industry experts on what is required if the vision of improved infrastructure is to become an efficient, well executed and long-term performing reality. The programme is being finalised and details will be forwarded via the regular members' Britpave Bulletin.

The seminar will be followed by the annual dinner which gives members and their guests the opportunity to relax and network.

Places for both the seminar and dinner are limited and are available on a first-come, first-served basis and so you are advised to book early once the June invitations have been sent out. There will also be marketing opportunities for exhibitions and sponsorship. Contact the Britpave office for further details, **info@britpave.org.uk**

2016 BUDGET INFRASTRUCTURE ANNOUNCEMENTS

One the face of it, the recent Budget has given the infrastructure sector much to cheer about. However, as always the devil is in the detail.

Although George Osborne made welcomed announcements concerning major infrastructure proposals there remains a need for firmer government support for key projects and more details on when work on them will actually start. Furthermore, excitement concerning new Crossrail 2 and High Speed 3, should overshadow the need to progress existing projects. For example, the HS2 Bill has still to receive Royal Assent.

There were some real cash pledges such as the £161 million to upgrade the M62 junction 10–12 and junction 20–25 to a four-lane smart motorway and the £151 million to fund new river crossings at Lowestoft and Ipswich. However, this spending is being brought forward within the existing five year national infrastructure plan rather than being new cash.

Main Budget transport infrastructure announcements included:

- Northern rail improvements

  £60 million to develop options for High Speed 3 between Leeds and Manchester, plus options for improving other major city rail links. A further £4 million to develop High Speed 2 Growth Strategies for Manchester Piccadilly, Manchester Airport and Leeds rail stations as part of an integrated long-term plan for High Speed 3.

- Northern roads improvements

  Accelerate development of the Lofthouse and Simister Islands junctions, capacity enhancements to the M1 junctions 35a-39 and deliver on the commitment to upgrade the M56 junctions 6-8 within the current parliament.

- M62 improvements

  Additional £161 million to accelerate the delivery of four lane smart motorway between junctions 10-12 and 20-25.

- Pennine improvements

  Provision of £75 million to develop the case for a potential Trans-Pennine tunnel between Sheffield and Manchester plus options to improve the A66, A69 and the north-west quadrant of the M60.

- Large major transport projects

  Provision of £151 million for new river crossings at Lowestoft and Ipswich and an invitation for further bids for the £475 million Local Majors Fund.

- Crossrail 2

  Provision of £80 million to allow Crossrail 2 to proceed to the Hybrid Bill stage within this Parliament.

- South West rail resilience

  Provision of £5 million for the development of options for improving rail line resilience between Exeter and Newton Abbot.

- Modernising rail stations

  £16 million to improve Market Harborough, St. Albans, Redhill, Newbury, West Wycombe, Exeter St. Davids, Weston-Super-Mare and Cheltenham rail stations

- Midlands roads

  Feasibility studies into upgrading the M1 to a continuous smart motorway from London to Yorkshire, improvements to the A46 Newark bypass and its junction with the A1, upgrading the single carriage link on the A45 Stanwick to Thrapston and upgrading the M43 and M5 around Birmingham to four lane smart motorway.

In addition, Osborne underlined a continued focus on the need for infrastructure investment through the National Infrastructure Delivery Plan that sets out the details of over £100 billion of public sector investment, with the National Infrastructure Commission's development of proposals to realise the potential of the Cambridge – Milton Keynes – Oxford corridor and the launch of the development of the Second Roads Investment Strategy which will determine road investment plans from 2020-21 to 2024-25.

CPA FORECASTS INFRASTRUCTURE GROWTH

The Construction Products Association (CPA) has revised upwards its infrastructure industry growth forecasts up to 2019.

Output within key infrastructure sub-sectors of roads, rail, energy and water supply and treatment is expected to double between 2015 and 2019, boosted by major projects such as the Thames Tideway Tunnel, HS2 and Hinkley Point C nuclear power plant. Growth of 102% in infrastructure is expected to prop up a 21.5% rise in general levels of activity in the construction industry between 2015 to 2019.

The CPA is now predicting general construction activity will drop in 2016 from 3.9% to 3.6% due to a slow down in new project starts. Growth will return from 2017 it says, as major infrastructure projects such as the Thames Tideway and HS2 get started. Electricity generation is expected to be the strongest sub-sector of infrastructure, growing by 163.8%, followed by roads (147%), water (97.2%) and rail (30.7%).

The CPA warns of some key caveats, however, due to threats to infrastructure growth from a deteriorating global economic picture, the EU referendum and skills shortages.

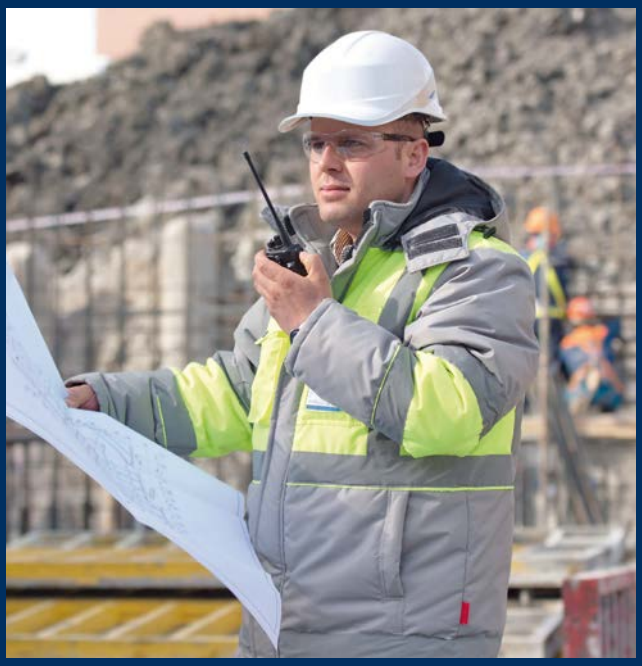
"These risks are currently causing concern in the short-term and could turn to reality and harm infrastructure growth significantly over the long term," says the CPA's economics director Noble Francis. "Increasing investment in infrastructure is expected to lead to output in the sector in 2019 worth £27.6 billion, 101.8% higher than in 2015, but uncertainty over global economic growth is currently a key issue and at the moment is affecting financial markets. Another issue that may have a significant impact this year will be the EU referendum. No assumption has been made regarding the result but, in the months leading up to the referendum, uncertainty regarding the result could lead to a hiatus in investment in the UK as well as causing a slowdown in new orders or previously signed new orders being put on hold."

Constraints to supply and project delivery due to skills shortages is potentially a greater threat, Francis says. The CPA's forecast assumes that the skills are there to meet the needs of the projects in the pipeline and ensure the forecast growth is achievable.

INFRASTRUCTURE GROWTH NEEDS 6500 MORE CIVIL ENGINEERS BY 2020

Nearly 6500 more civil engineers are needed by 2020 to meet the growth infrastructure construction according to The Construction Industry Training Board (CITB).

CITB is calling for more apprenticeships in response to its 2.5% annual growth forecast for the next five years – which could see 232,000 new jobs created. CITB's latest Construction Skills Network (CSN) report predicts sustained growth from 2016-2020, driven by infrastructure and private housing. New nuclear power stations at Somerset and Wylfa, Anglesey, alongside rail projects such as Crossrail and HS2, will drive year-on-year infrastructure growth of 6.1%. The commercial construction sector will experience growth of 3.4% per annum, while private housebuilding will also experience sustained growth across the forecast period. Output in the housebuilding is expected return to pre-recession levels by the end of the forecast period, reaching £26bn by 2020.



CITB believes that 1,270 civil engineers will need to be recruited annually, 1730 other construction professionals and technical staff will be needed; and 490 architects per year.

FORWARDING CEMENTITIOUS INFRASTRUCTURE: BRITPAVE TAKES THE INITIATIVE

Against a background of increased infrastructure investment, Britpave is forwarding a number of industry guidance reports, playing an active role in the development of industry specifications and liaising with key infrastructure stakeholders.

For the Britpave Roads Task Group, the main issues currently in hand are the revisions to the SHW 800 and 1000 series and IAN 73. This work is being co-ordinated by the UKPLG working groups 2, 6, 7 and 8 with Britpave input being managed via the Roads Task Group. In addition, Britpave is to work closely with the Mineral Products Association (MPA) on the development of a design method and specification for Roller Compacted Concrete (RCC) for use in highway pavements. It is anticipated that the design method will be included in the Highways England (HE) Design Manual for Roads and Bridges, Volume 7 Pavement Maintenance and Design, Section 2, Part 3, HD26 Pavement Design, and the technical specification for the pavement construction and RCC materials will be included in the Manual of Contract Documents for Highway Works (MCHW), Volume 1 Specification for Highway Works, Series 1000 Road Pavements - Concrete Materials.

The Rail Task Group is to review and update the Guided Busway Construction Handbook. This sets out best practice for busway schemes designed and constructed in slip-formed in-situ concrete. The need for this guidance is underlined by predictions from Britpave member TRL of a continuing growth in light rail urban networks. With regards to rail track, the Task Group is to develop new guidance on the reduced noise benefits of slab track and to publish a new marketing brochure promoting the wide range of overall performance benefits of slab track.

For airport infrastructure, work continues updating the 2005 version of the PQ DIO Specification 033.

All of the above infrastructure needs a good foundation and the Britpave Soil Stabilisation Task Group is to develop guidance on soil stabilisation for major infrastructure projects. The Task Group has long been an advocate for best practice having publish a range of industry guidance for contractors. The Task Group is to focus on those clients who also need to be advised of best practice in order to ensure a successful soil stabilisation project.

Bringing all this together, is an increased marketing profile for the Association that has seen it present at the recent Highways UK and Roads Summit events, the proposed development of a national road noise campaign underlining the long-term noise reduction benefits of concrete roads and the publication of a monthly members' bulletin to keep them abreast of Britpave initiatives.

BRITPAVE WELCOMES GOVERNMENT'S NEW FUND FOR URBAN REGENERATION

Britpave has welcomed the government's announcement of a £1.2 billion starter home fund to prepare brownfield sites for new homes. The new fund will help to kick-start regeneration and secure planning permission for renovating disused or under-occupied urban sites.

Up to 30,000 affordable homes are proposed to be built over the next five years at Connaught Barracks in Dover, Northstowe in Cambridgeshire, Lower Graylingwell in Chichester, Daedelus on Waterfront in Gosport and Old Oak Common in north west London.

Al McDermid, Chair of the Britpave Soil Stabilisation Task Group said: "The Prime Minister's announcement to pump £1.2 billion into the regeneration of brownfield sites is a positive move to provide much needed affordable housing without impinging on the green belt."

Brownfield land is often more difficult to use than green field sites particularly if the site has been contaminated by previous industrial use. The traditional approach to this has been to simply dig up the problem soil and dump it elsewhere. This is not the most sustainable or cost effective approach as hazardous landfill site are few and far between and the haulage costs can be significant.

"A far better approach is to deal with the problem there-and-then", explained McDermind. "Insitu remediation and improvement of poor quality brownfield land using cementitious materials to solidify and stabilise the soil removes the cost of lorry movements, landfill taxes and importation of virgin aggregate. It also has a significantly reduced environmental impact."

He continued: "When done correctly, with good ground investigation and laboratory work, soil stabilisation/ solidification is a most effective way to bring brownfield land back into productive use. The UK, with its limited land availability, is at the forefront of brownfield redevelopment and our members look forward to offering that expertise help provide the new homes that the UK so badly needs."

THE WORLD'S MOST POWERFUL COMPACTION ROLLER

Britpave member, Smith Construction (Heckington) Ltd, has invested in the world's most powerful 26 tonne compaction roller from German manufacturer BOMAG. The machine is the only one in the UK.

The new deep impact roller effectively compacts the ground up to 4 metres deep, with every turn of its 26 tonne polygonal drum roller. It does this by rolling and vibrating at the same time. The roller surface is smooth, but it has a polygonal shape which sends vibrations into the ground as it travels across the land. The compacting vibrations, at various frequencies are controlled and directed both vertically and horizontally by computer aided equipment located in the drivers cab. As the machine works, the computer records the details and measures the ground strength and compaction achieved to enable the technical operator to monitor the results at all times. This technology prevents the same areas being compacted more than once. The data is stored and can be used to demonstrate improved ground strength.

Russ Smith, Transport and Plant Manager at Smith Construction said: "This new deep impact roller is a big investment for the company, it opens up a whole new field for compaction technology, and will enhance our ground stabilisation division. Our clients can now benefit from even more efficiency for ground remediation and stabilisation projects."

HELPING TO DELIVER FUTURE-RESILIENT INFRASTRUCTURE

Dawlish station closed by storm

Image courtesy of Geof Sheppard

The impact of this winter's storms has underlined the need for resilient infrastructure. Here, Dr Martyn Kenny, sustainability director at Britpave member Tarmac, discusses how collaborative innovation and the continued development of sustainable solutions will help to deliver future-resilient infrastructure in our ever-changing world.

It's an uncertain world but there's certainty that climate change, population growth, urbanisation and resource scarcity will continue to be the dominant socio-economic mega-trends affecting our sector. Among the impacts will be much greater demand for energy, water and other resources, and the durability of our infrastructure in the face of more extreme weather.

So, we need to ensure that we future proof the infrastructure that we're building now, as well as thinking about how we deliver rail, roads and other civils projects differently in the years ahead.

We can't miss the opportunity to act, and that action should encompass both product innovation and ways of working.

Whole-life thinking in product development and its application to projects is key. For example, while we need to consider the carbon used in the manufacture of a material, just as important – arguably more so – is the embodied carbon used over the lifetime of a structure. We need low-carbon whole-life solutions. Heavyweight and durable materials such as concrete are products which may not have the lowest carbon at point of manufacture but their longevity makes them the more sustainable option. Product innovation can also help us design for growing and urgent issues such as flood management. Sustainable drainage systems, including new-style porous concrete and asphalt mixes, are being increasingly used as permeable surfaces for flood mitigation and controlling rainwater.

However, if the infrastructure sector is to meaningfully adapt to the mega-trends outlined earlier, we have to work together across the supply chain. That means greater collaboration between clients, contractors, materials providers and other suppliers. At an early stage on projects – planning and strategy, not just delivery – we need to harness the sustainability expertise which exists across organisations and work together to find the best solutions.

In projects which Tarmac has recently been involved with, that sort of open working relationship, where the materials provider moves from being just product supplier to consultant, has yielded genuine and impactful sustainability benefits.

This way of working now needs evolve from the micro level – project by project, bit by bit – to the macro; a collaborative approach used by everyone, which scales up the positive impacts we can have on our communities and planet. If our sector can crack innovation, not just in the creation of sustainable products but also in sustainable project delivery, we will be in the best possible shape to design and deliver future-resilient infrastructure.

Image courtesy of David Hunter

CEMEX HELPING TO BRIDGE THE GAP OF THE MERSEY GATEWAY

The Mersey Gateway road bridge across the River Mersey will provide a new link between the towns of Runcorn and Widnes and speed journey times for those travelling further into Liverpool and Merseyside.

Due to be opened to traffic in Autumn 2017, Britpave member CEMEX UK is working with client Merseylink Civil Contractors Joint Venture to deliver the project which features a reinforced concrete decked three pylon cable-stayed bridge linked to approach viaducts on each side of the river.

Work on the approach viaduct decks involved a continuous 34 hour pour of 1148m^3 concrete. An innovative moveable scaffold system (MSS) was been used by Merseylink to build the concrete approach viaduct decks and the CEMEX team in partnership with the contractors, provided the technically demanding concrete and supply expertise.

The MSS is 157m long, 22m wide, weighs 1700 tonnes and is a giant section of formwork, enabling the project team to cast deck spans of up to 70m at every location. Once poured the MSS jacks itself forward to the next span.

Each deck span requires more than 1000m^3 of concrete and has a complicated cross-section. Therefore, every pour requires a similarly exacting placement pattern to ensure the C50/60 concrete hardens homogeneously across the deck. Using CEMI and a bespoke admixture combination will ensure, consistence retention, where required and high early age compressive strength.

"Mersey Gateway is a highly complex engineering project and one of the biggest in Europe, for which we, in partnership with Merseylink, have developed a suite of concrete mixes that will meet the performance criteria for this amazing infrastructure. The approach deck span requires a consistent C50/60 concrete with two hour consistence retention and 32 MPa at 36 hours to enable post-tension stressing" commented Richard Kershaw, CEMEX National Technical Manager.

The continuous pour of 1148 cubic metres was fed by two mobile batching plants set up by the CEMEX engineers close to the construction sites. These have been established one on each side of the river, to accommodate work on the scheme. This first MSS pour was on the North Approach Viaduct using the North Batching Plant on the Widnes side of the crossing.

GOMACO INTRODUCES THE GP3

GOMACO launched its all-new GP3 slipform paver for widths up to 30 feet (9.14 m) at this year's BAUMA and World of Concrete.

The dual-telescoping GP3 is the first in a new family of GOMACO pavers with next generation technology. It features Smart Frame Widening to accommodate multiple width changes, Smart Leg Positioning and Smart Steering with full-steer tracks, all controlled by the GOMACO-exclusive G+® digital control system to make the GP3 the world's most intelligent paver.

The new GOMACO GP3 Smart Paver has been designed to easily accommodate multiple width changes. It features a roller frame with dual telescoping capabilities of up to 2.13m on each side of the paver, for a total of 4.26m of automatic frame widening. Double parallel, hydraulic telescoping frame members in the front and rear of the mainframe allow the dual telescoping capability. Smart cylinders in the unique roller frame allow Smart Telescoping with accurate frame widening and automatic width reference for steering setup. The T-beam mounting rail is incorporated into the telescoping frame.

The GP3's Smart Leg Positioning includes sensored, hydraulic rotational drives on the pivot arms of each of the paver's four legs. The Smart Pivots on the legs provide the G+ control system with information on the angle of rotation and work together with the track rotation sensors to maintain the tracks in the straight-head steering line. Sensored, hydraulic rotational drives are also located on each of the paver's four tracks for the ultimate in Smart Steering technology and extreme steering with the tracks having the ability to steer farther than ever before. The Smart Track Rotation provides the G+ control system with exact track location and position. The GP3 easily turns radii with Smart Leg Positioning and Smart Track Rotation. They work with the G+ control system to automatically control the direction and speed of the track travel through a radius.

The new paver has been designed for easy transport. The paver is put into the Transport Mode by simply driving the legs around to the transport position with the GP3's full-steer tracks and hydraulic rotational sensored pivot arms. With the legs in the transport position, G+ travel is switched to "Transport" for complete control. It has a retractable, sliding operator's console to reduce the shipping width of the machine. The paver has a minimum transport width of only 2.59m and 10.15m minimum transport length.

The GP3 is designed to be easy to operate with the G+ control system, as well as comfortable for the operator while offering a complete view of the entire job site. Vibrator modules are positioned across the front of the operator's platform for easy accessibility and operation visibility. G+ allows quiet running technology and also load-sensed hydraulics for maximum paving performance and optimised fuel efficiency. The paver has an isolated operator's platform for operator comfort during a long day of slipform paving. The platform is easy to access with multi-positioning, pivoting ladders. The ladders allow variable degrees of angle for safety and ease in climbing. For minimum-clearance paving conditions, the ladders can be vertically positioned tight against the paver.

G+ Connect allows all the smart accessories and guidance system for the GOMACO paver to be easily interfaced. Simply "connect" a 3D stringless guidance system, IDBI, tie bar inserter (TBI), power transition adjustor (PTA), GOMACO Smoothness Indicator (GSI®) and more to the GP3 slipform paver. The GP3 can also feature the latest in telematics and remote diagnostics.

DUBLIN AIRPORT FLYING HIGH

Dublin Airport, operated by Britpave member DAA, was one of the top performing airports in Europe in 2015.

New passenger data from airport trade organisation ACI Europe shows that Dublin Airport was one of the best performing airports in its Group 2 peer group, which comprises European airports welcoming between 10 and 25 million passengers per year. Dublin Airport had the third largest passenger increase within its peer group, behind Istanbul Sabiha Gökçen (19.7%) and Athens (19.1%).

"Passenger numbers grew by 15% at Dublin Airport last year, making it the busiest year ever in the airport's history as just over 25 million passengers travelled through the airport in 2015," said Dublin Airport Managing Director, Vincent Harrison. "We're expecting passenger numbers to grow further at Dublin Airport this year with the addition of 13 new routes and services as well as and two new long-haul charter destinations."

Dublin Airport had strong passenger growth across all market sectors last year and welcomed one million passengers through its US preclearance facility as well as one million transfer passengers for the first time ever in a single year. Overall European passenger numbers increased by 5.2% last year, according to ACI Europe, while traffic within the European Union increased by 5.6%. Aircraft movements increased by 2.2% across Europe in 2015.

Dublin Airport which was in the Group 2 category of airports welcoming between 10 and 25 million passengers moves into the Group 1 category for airports welcoming over 25 million passengers in 2016. Dublin Airport has direct flights to 170 destinations in 38 countries on four continents.

AIRPORTS NEED BETTER TRANSPORT CONNECTIONS

Senior MPs have heavily criticised the Government's approach to airports' transport access, highlighting that many have been left 'completely disconnected from major road and rail infrastructure'.

The cross-party Transport Select Committee, told ministers to draw up plans, which could be integrated with national and local stakeholders' aims, to improve surface transport access to airports and boost modal shift towards more sustainable methods of travel, particularly rail.

Of the 21 UK airports that saw more than one million passenger journeys in 2014 only nine have direct rail connections, MPs on the Committee.

'The absence of a decision on airport expansion in the South East is a major obstruction to progress, and without a master plan for the country, the regions cannot be expected to deliver effectively their own pieces of the jigsaw,' MPs said.

SMALL BUT PERFECTLY FORMED

At just 165 metres long, the Bakerloo Line Link (BLL) is one of the smaller tunnelling jobs Costain will undertake this year.

However, the new tunnel link, designed to give step-free access between the basement level of the Crossrail Paddington station box and the London Underground Bakerloo line, is a classic example of engineering ingenuity.

The BLL is being undertaken by a Costain Skanska joint venture (jv) as main contractor, with London Underground the client. When ready for public use by December 2018, it will form another piece in the jigsaw of projects that is bringing a new level of transport connectivity to the capital.

When the jv won the contract just before Christmas 2014, London Underground was looking for a better design solution and the jv put forward a design that would reduce permanent and temporary works by around 20% and remove the need for one shaft.

It proposed using existing infrastructure under the old Royal Mail building in London Street, Paddington, where the jv has set up offices. Deep under the building are platforms and a conveyor tunnel previously used by Royal Mail unmanned trains to distribute mail around central London.

"We're using the 'mail rail' platforms and western conveyor tunnel to construct our works, which significantly reduced the temporary works required," said Duncan Hasson, initially Bid Manager for the job and now its Project Director. "That was very appealing to London Underground."

The new design is currently with London Underground for review and approval, with compliant design achieved in February.

Among the complexities of the job, an underground switchroom must be demolished to make way for an escalator barrel. A new switchroom must first be created off-line and the necessary equipment installed and tested before the original room is demolished.

The tunnel distance is too short for a tunnel boring machine to be used, so the BLL tunnel is being dug by hand, one metre at a time. A special robotic sprayer then coats the tunnel with a spray concrete lining 250mm thick. "You wait for that to cure, then excavate out another metre," said Duncan.

However, "We're very fortunate we've got very good ground conditions," he added. "It's very stiff, hard London clay that's enabling us to cut a very nice tunnel profile."

HS2 MAKES PROGRESS

The hybrid HS2 Bill for Phase One of the scheme between London and Birmingham has successfully passed its third reading in the House of Commons with MPs voting 399 to 42 in favour. The Bill will now pass to the House of Lords. Subject to completing it parliamentary passage and obtaining Royal Assent, construction will start in 2017.

Meanwhile, Britpave members CH2M and Atkins have been named as part of a consortium together with SENER as the Engineering Delivery Partner (EDP) responsible for the delivery of Phase One of High Speed 2.

The £350 million contract is due to run for ten years and will see the consortium work with HS2 Ltd in an integrated team to drive long term efficiencies across the design and construction of the line, extending through to the commissioning of the railway. The consortium will provide expert engineering, programme management and construction management support as well as assisting with preparation for the procurement of the main civils contracts for the London to Birmingham stage of the route.

CH2M, who have been working with HS2 Ltd since 2012 as Phase One Development Partner, provide global programme management expertise, with Atkins bringing engineering expertise and SENER drawing on international high speed rail experience.

Commenting on the contract win, James Rowntree, CH2M's Managing Director of Transportation, Europe, said: "The CH2M/Atkins/SENER consortium is delighted to have been named as the Engineering Delivery Partner for HS2 Phase One. This marks a significant step forward in the delivery of this important infrastructure programme, which will link up the UK's regional economies and create vital growth up and down the country. CH2M looks forward to building on its close relationship with HS2 Ltd from its current role as Phase One Development Partner, and working alongside Atkins and SENER in driving this programme forward."

In a further milestone for the wider project, HS2 Ltd has published details of engineering design work worth up to £500 million for developing the detailed plans for Phase Two, including Crewe to Manchester and Birmingham to Leeds, ahead of a formal route decision on Phase Two, expected in the autumn.

INTERSERVE IS FRAMED

Britpave member Interserve, the international support services and construction group, has been awarded a place on the new Eastern Highways Alliance Framework, which covers 11 local highways authorities across the east of England.

The company is one of six contractors that will be selected to undertake road schemes valued at up to £20 million each within the framework, which is worth up to £750 million over four years. The framework will reduce the cost and time it takes for projects such as new roads, roundabouts and other infrastructure to be built.

Ian Renhard, Managing Director of Interserve's construction business, said: "This award highlights our strong track record in delivering complex road projects, which have helped develop and improve the country's strategic road network. We look forward to working collaboratively with the Highways Agency, the Eastern Highways Alliance and our supply chain partners to deliver the exciting projects ahead."

Cambridgeshire County Council's highways and community infrastructure committee led the selection process on behalf of the 11 highways authorities, including Suffolk and Essex county councils. Roger Hickford, chairman of the highways and community infrastructure committee of Cambridgeshire County Council, said: "The first framework, which was set up in 2012, used four contractors to deliver schemes up to the value of £10 million. This framework made some significant savings for all the councils involved so the new framework, which is split between work up to £1.5 million and contracts valued from £1 million to £20 million, will save considerable funds and time for us all. It is innovative thinking and partnership working like this which demonstrates how local authorities are collaborating together in adapting to the challenges we face."

BRITPAVE MEMBERS GO BACK TO SCHOOL

Recognising the importance of not just the next generation but the generation before them, Britpave members have been actively engaging with students and school pupils.

Combined Soil Stabilisation recently gave a presentation to a group of local students from Warrington College. The presentation covered the Omega Development in Warrington for client D. Morgan Ltd. The project involved the lime and cement stabilising 12,000m^2 of site-won soils to achieve a 30% sub-base replacement. The students weer provided with an insight and understanding of soil stabilisation: the benefits, the process and the plant as well as a demonstration of the process.

Lagan Construction Group paid a visit to St Padarn's Primary School in Aberystwyth to give the pupils an insight into the construction work that is currently happening in their area and to warn them of the dangers of playing near construction sites.

Lagan Construction Group are currently delivering the Mill Street Development in Aberystwyth which will include a new Marks & Spencer department store and a Tesco Extra store. Representatives from the project met with the pupils who were delighted to receive a donation of Hi-Vis vests.

Patricia Slater, Deputy Head, St. Padarn's Primary School, said: "It is important for the children to understand the dangers associated with building sites and also to meet people from the world of work. It gives the pupils an insight into life beyond the school gate, and may even inspire them to enter the construction industry."

COPPERCHASE : SOURCING AND PROVIDING IN EXTREME AREAS

COPPERCHASE
services - systems - solutions

Copperchase has recently become Britpave member. Here, Richard Mckinlay, Senior Project Manager, Copperchase Concrete Special Projects, provides an overview of the company.

Copperchase Concrete is a new division of Copperchase Limited, a service, systems and solutions company primarily involved within the air support industry. Previous contract history includes supplying Air Data Control Systems/Air Traffic Services Message Switch's to sites in Algeria, 2 Air Traffic Services Message Switches for a Training facility and a Test Lab facility in the USA for Northrup Grumman ES, Met Masts for Equitorial Guinea and an AFTN/Email Gateway application "AFMAILER" system for SWACAA at Sikhuphe Airport in Swaziland.

The Copperchase concrete connection started from a company based in Iraq, 4th Dimension, who have been responsible for major projects in Iraq. Examples of contracts for 4th Dimension include Al Ghadeer Village, the contract comprising of 3,000 precast housing units for local residence, a central mosque, schools, a police station, a shopping centre, a library and other service buildings, The Village is located 160 km south of Baghdad, 11 km north of the city centre of Al-Najaf Al-Ashraf, and 10 km from the Imam Ali's holy shrine. A project in Babylon which provided the local area with living apartments, an elementary school, market, guard rooms 4th Dimension Apartment Complex at Babylon, Iraq, comprising the establishment of a residential complex, consisting of multi-story building (4 floors, 8 apartments) works. Other prestigious contracts have included Kirkuk hospital, Karbala maternity & paediatrics hospital, cardiac medical centre and the rehabilitation of the ministry of justice.

It is this connection between 4th Dimension and Copperchase Limited that created our new venture, Copperchase Concrete. The situation in Iraq for so many years has been a sad and devastating one, dictatorship, poverty, wars, and now the invasion of the so-called Islamic State who control swathes of Iraq. All of this leads to severe infrastructure problems, coupled with lack of education and employment for local people. New infrastructure projects promote health and security and provides employment that gives education, future skills, and an important distraction from joining in the troubles.

Recent interventions in Iraq have always been full of good intentions but continued instability and corruption and failed politics have undermined these. One thing that Iraq does have is vast reserves of minerals. Crude oil which is a current source of income, from a construction perspective the country has vast reserves of silica and pozzolan, an important material to concrete. The first consideration for Iraq is income. This is why a new project at Karbala for a new oil refinery has come into play, and where the official beginnings of Copperchase Concrete start. A 200,000m^3 contract win scope for Karbala Refinery, 350,000m^3 for a new runway, taxiway and ramping at Al Najaf airport, 300,000m^3 at other oil fields in conjunction with Hyundai, has ensured nearly a million cubic metres contract win in our first year of operating. Strategic relationships are being built with other middle east suppliers and world leading concrete plant companies, emerging markets in Africa and the far east are being monitored, leading experts from around the world are being employed, this we feel at Copperchase will make us the biggest concrete supply company in Iraq and the wider region. The better we do in business, the better a situation gets, the better a situation gets then the majority of a population benefit also, that's a good business acumen to have.

BRITPAVE MEMBERS' NEWS

NEW MATERIALS TESTING LAB

Britpave member, Gill Civil Engineering have taken a huge step towards its long-term goal of achieving UKAS accreditation by creating a state of the art, purpose built and temperature controlled Materials Testing Facility. The company can now provide quality controlled testing in-house on all future and current projects.

NEW MEMBER SGE

SGE EARTHWORKS AND SOIL STABILISATION

Britpave welcomes new member SGE Earthworks and Soil Stabilisation. SGE carries out bulk earthworks and ground engineering for civil engineering and construction projects, in particular, highways, airports and commercial buildings. The company has a pedigree history having established by some of most highly regarded soil stabilisation and ground engineering experts. SGE work as both sub-contractors and principal contractors, from early planning to execution, and always with the aim of achieving a cost efficient, value engineered solution.

SGE has in depth experience and expertise in brownfield development. As greenfield sites become harder to find, developers are increasingly turning to brownfield sites. Consequently, the need for soil remediation is growing due to the need to clean up potential pollutants and contaminants. From laboratory analysis to treatment of materials and purification of groundwater, SGE specialise in the transformation of brownfield sites in accordance with the latest construction and environmental legislation.

For soil stabilisation and modification, SGE is able to provide the best solutions for dealing with contaminated, weakened or unsuitable soil. By enhancing the soil insitu rather than disposing it to landfill, SGE can significantly help with reduced construction costs. Using new methods as well as traditional line treatments and cement bound materials, SGE can modify and strengthen on site soil.

Recent projects include: Bedfont Road, Heathrow, bulk earthworks and soil remediation of a brownfield site for the construction of four distribution units; Copcut, Droitwich, earthworks for a residential development; Acton, London, bulk excavation of 15,000m^3 and piling mats works for an inner city brownfield site.

BRITPAVE MEMBERS

As the focal point for in situ concrete and cementitious infrastructure solutions, Britpave offers its members a recognised industry voice, market sector development and beneficial industry networking opportunities. Britpave members include clients, consultants and engineers, contractors, material and plant suppliers and academia.

Allied Infrastructure Management Ltd - www.alliedinfrastructure.co.uk
Arup and Partners Ltd - www.arup.com
Atkins Ltd - www.atkinsglobal.com
Balfour Beatty Ltd - www.balfourbeatty.co.uk
Ballast Phoenix Ltd - www.ballastphoenix.xo.uk
BAM Contractors - www.bamcontractors.ie
Bardon Composites Pavements t/a Aggregate Ind - www.aggregate.com
Barton Plant Ltd - www.barton-plant.co.uk
Beach Soil Stabilisation Ltd - www.beachstabilisation.com
British Lime Association - www.britishlime.org
Carillion plc - www.carillionplc.com
CEMEX UK - www.cemex.co.uk
CH2M - www.ch2m.com
Colas Ltd - www.colas.co.uk
Combined Soil Stabilisation Ltd - www.combinedssl.co.uk
Complete Design Partnership Ltd - www.cdpbroms.co.uk
Copperchase Concrete Special Projects - www.copperchase.co.uk
Costain Ltd - www.costain.com
Dublin Airport Authority plc - www.dublin-airport.com
Elkem Materials Ltd - www.concrete.elkem.com
Extrudakerb Ltd - www.extrudakerb.co.uk
Fixing Centre Ltd - www.fixingcentre@btconnect.com
Geofirma Soil Engineering Ltd - www.geofirma.co.uk
Gill Civil Engineering Ltd - www.gillgrouphouse.com
Gomaco International Ltd - www.gomaco.com
Hanson UK Ltd - www.hanson.biz
Interserve Construction Ltd - www.interserveplc.co.uk
JP Donegan Consultant - www.jpdonegan.consult@gmail.com
Lafarge Tarmac Ltd - www.larfargetarmac.com
Lagan Construction International - www.laganconstruction.com
Morgan Sindall Construction and Infrastructure Ltd - www.morganest.com
Norder Design Associates Ltd - www.norder.co.uk
PJ Davidson (UK) Ltd - www.pjd.uk.net
Power Plane Ltd - www.powerplane.co.uk
RJT Excavations Ltd - www.rjtexcavations.co.uk
RPS Group plc - www.rpsgroup.com
SGE - www.sgeworks.co.uk
Smith Construction (Heckington) Ltd - www.smithsportscivils.co.uk
TR Stabilisation - www.trstabilisation.co.uk
TRL Ltd - www.trl.co.uk
Tyrolit Ltd - www.tyrolit.com
University of Nottingham - www.civeng.nottingham.ac.uk
UK Quality Ash Association (UKQAA) - www.ukqaa.org.uk
VolkerFitzpatrick Ltd - www.volkerfitzpatrick.co.uk
Wirtgen Ltd - www.wirtgen.co.uk