

**BRITPAVE  
INVEST IN  
INFRASTRUCTURE  
SEMINAR —  
DETAILS INSIDE**

**TASK  
GROUP  
UPDATES**

**NEW TECHNICAL GUIDANCE  
& MARKET DEVELOPMENTS**

**DEVELOPMENT  
OF HEAVY DUTY  
PAVEMENTS  
TASK GROUP**

**MEMBER'S NEWS  
ON PLANT  
AND PRODUCT  
DEVELOPMENTS  
PLUS PROJECT  
CASE STUDIES**

**ALL CHANGE  
FOR BRITPAVE  
NEW FACES AND  
NEW OFFICES**

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## Dates for Your Diary!

### Tuesday 10th September

Britpave Heavy Duty Pavements Task Group meeting, Tarmac Lafarge offices, Syston

### Tuesday 10th September

Britpave Soil Stabilisation Task Group meeting, Tarmac Lafarge offices, Syston

### Wednesday 18th September

Britpave Council Meeting, Cemex offices, Rugby

### Thursday 26th September

2013 Britpave Industry Seminar and Annual Dinner, Staverton Park Hotel, Daventry

### Wednesday 9th October

Britpave Roads Task Group meeting, Tyrolit offices, Crick

### Wednesday 9th October

Britpave Rail Task Group meeting, Tyrolit offices, Crick

## Editor's Note

The key objective of Britpave is to develop the infrastructure sector and market opportunities on behalf of its members. Here, a number of initiatives are bearing fruit. The Britpave Insitu Engineering Supplement, published with *New Civil Engineer*, resulted in HS2 requesting to meet with Britpave members to discuss rail slab track and soil stabilisation solutions. Meanwhile, the Airfield Task Group has evolved to become the Heavy Duty Pavements Task Group in order to widen its remit to include the ports and industrial pavements sectors both of which offer significant growth opportunities.

Other Task Groups are actively progressing a number of initiatives aimed at developing market sectors. The Soil Stabilisation Task Group has taken ownership from the Highways Agency of the revision and updating of HA74, a key recognition of the Task Group's experience and expertise. It is also working with the National House Building Council on the development of a soil stabilisation specification which will have significant market potential. The Special Projects Task Group is proposing to develop a new product to realise the market potential of the flood defence capital expenditure by government and utility companies. The Roads Task Group, buoyed by the Highways Agency decision to consider road surface materials on equal performance criteria, is undertaking a number of best practice guidance and research projects that will underline the performance benefits of concrete roads. The Rail Task Group is to work on the provision of the ultimate client guide on concrete slab track. Unusually this will be developed from the view of the client by addressing their specific issues and concerns. The renewed focus on Task Group activity and outputs is welcomed and members are encouraged to get involved.

Despite the challenges of the current economy, or maybe because of them, these are exciting times for Britpave as, on behalf of its members, the Association seeks to turn challenges into opportunities.

Steve Elliott  
Britpave General Manager

## Stop Press.

Please note Britpave has moved. Our new address is Indigo House, Mulberry Business Park, Unit 10, Wokingham, Berkshire RG41 2GY. Tel: 0118 402 8915

*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.

*Disclaimer:* All articles are published in good faith. Britpave will not be held responsible for any errors, misinformation and opinions in articles submitted for this newsletter.

## New faces at Britpave

Now enjoying the good life in the Philippines, Jim Troy has stepped down as Britpave Chairman. He has been Chairman since 1992 in the days when Council meetings were held in the Poacher's Pocket in Wrexham Springs. He took on the dual role of Chairman and Treasurer in 1997 and held both posts until the creation of the role of Vice Chairman in 2009. James Charlesworth, previously Vice Chairman, has been appointed as the new Britpave Chairman.

Over the years, Jim saw Britpave change from being primarily focused on paving to covering a much wider remit of concrete and cementitious infrastructure solutions as the consolidation of the construction industry and the materials supply industry led to a number of changes in membership. The coming together of a number of trade associations BACMI/BRMCA/SAGA and the subsequent formation of The Concrete Centre presented a number of challenges.

Some of these challenges and changes have resulted from the development of the slipform concrete barrier. This led to a fundamental change in the nature of Britpave, from a trade association to a commercial business. A review by Council members in 2011 concluded that the commercial activities of Britpave were very time consuming and could lead to the interests of the wider membership being neglected. The decision was made to split the barrier business away from the trade association leaving Britpave able to fully focus its activities on development of the market sectors represented by its wide membership.

Commenting on his Chairmanship, Jim said: "I have thoroughly enjoyed my time with Britpave. The future for the Association is interesting as it has no divine right to exist or claim a particular market segment. However, the Association is strong and flexible enough to not just adapt to the challenges but to prosper from them. I believe that Britpave, under the chairmanship of James, has a real and positive future. From my hammock under the palms, I wish you all well."

Appreciating the role that he has to fill, James Charlesworth said: "I am delighted to move from the role of vice Chairman to Chairman and look forward to continuing the work of the previous Association's Chairs. I inherit a strong organisation with an enviable membership portfolio and will focus on listening to and delivering the aspirations of our membership through the Britpave Council, Task Groups and office team. I must thank our previous Chairman and Company Secretary Jim Trot for his outstanding service over many years. I have, I am afraid, some very big boots to try to fill!"

## New Britpave Administrator

With Carol Abbey moving over to Britpave Barrier Systems, Britpave trade association has a new Administrator: Beverley Eldridge.

Beverley has many years' experience of working within office administration roles. She will work closely with Steve Elliott, Britpave

General Manager, supporting the progression and development of the trade association and providing membership support and services and will be working on a part-time basis, Tuesday to Thursday.

Steve Elliott, Britpave General Manager said: "On behalf of Britpave and its members, I would like to take this opportunity to thank Carol for her hard work and dedication and to welcome Beverley to the Britpave team."

## Britpave Seminar: Invest in Infrastructure

The need to invest in Britain's transport infrastructure may now be on the political agenda but it has yet to receive the necessary level of investment. At this year's Britpave seminar key industry figures will present on a range of topical issues relating to infrastructure investment. They will examine the current challenges and forward possible solutions.

The speakers include:

- **Andrew Price, Chief Economist**  
Why the UK's transport infrastructure requires increased investment
- **Keith Mitchell, Chairman, Peter Brett Associates and Board Chairman, National Infrastructure Planning Association**  
Planning for infrastructure – a platform for economic growth?
- **Graham Dalton, Chief Executive, Highways Agency**  
Delivering a better strategic road network – cost effectively
- **Peter Sanders, Researcher, TRL**  
Getting to grips with longitudinal diamond grinding: the long-term frictional performance of longitudinal diamond grinding
- **Colin Stewart, Director, Arup**  
HS2 – an update
- **Dr Burchard Ripke, Head of Department, Deutsche Bahn AG**  
Performance of ballastless tracks – perspective of Deutsche Bahn
- **Paul Beetham, Researcher, Loughborough University**  
Developing soil stabilisation practice with industry focussed research

The seminar provides the opportunity to examine the issues affecting your business. There is also a number of exhibition and sponsorship opportunities allow companies to raise their business profile.

Places for the seminar and exhibition are booking fast. For further details and booking visit: <http://www.britpave.org.uk/annualSeminar.ink>

The Seminar will be followed by the Britpave Annual Dinner. This will no longer feature the Britpave Infrastructure Awards which have been postponed due to a lack of entrants. Instead, diners will be entertained by Mick Miller, a great stand-up comedian who is often referred to as 'the bald guy with long hair'. The Annual Dinner provides a great opportunity to relax and network with industry colleagues. Dinner places may be booked individually or for part/full table of 10.

For further details and booking visit:

<http://www.britpave.org.uk/annualSeminar.ink>

## Gomaco's Smooth Operator

The paver-mounted GSI® (GOMACO Smoothness Indicator) provides immediate smoothness readings, right out of the paver, and displays these readings on the touch-screen monitor so they can be viewed instantly.

The GSI traces the slab and takes smoothness readings simultaneously from three different sensors on each trace. The GSI trace over the new slab will provide smoothness readings in multiple indexes, including the GSI number, IRI, PI (profile index based on the California profilograph), or it can be exported as an .erd file to create several other indexes.



Gomaco's smooth operator

The indexes are derived from the true profile of the surface, determined by the data collected. These indexes are viewed and monitored on the GSI's touch-screen monitor. The on-the-go surface smoothness information includes station and footage documentation for later reference of bump and smoothness locations. The GSI's feedback allows on-the-go adjustments to fine-tune the paving operation. Contractors instantly know how changes to a number of different paving variables directly affect the quality of the ride. Instant results eliminate having to wait until the cured concrete has been profilographed to see how the variables affected ride.

The GSI is also available as a mobile unit, providing the same smoothness monitoring and quality assurance as a paver-mounted GSI. It also can be outfitted with GSITools™, GOMACO's software application that performs post processing of exported GSI trace data. With GSITools, the GSI can be used in a variety of applications, including the Grade Analysis Tool, which can build a profile of the grade and estimate the concrete yield of the project. A GSI trace over an existing roadway can provide data for a 3D model in an overlay application. The GSI will collect the data with multiple traces (up to eight) in a single pass. This single pass with the GSI on the project totally eliminates the tedious handwork of two survey engineers and provides an accurate visualization of an existing roadway for a 3D model to be used for stringless paving of an overlay project.

## Full Control With Gomaco



G+® is GOMACO's proprietary control system that is both easy to learn and easy to operate. It's been proven throughout the world on the T/C-600 texture/cure machine, IDBI, GT-3200 curb and gutter and sidewalk machine, 4400 barrier machine, and since the first of the year, almost all the remaining line of

**GOMACO equipment now features G+ controls.**

**G+ Design:** The G+ control system was designed in-house from the ground-up. All of the software for the G+ control system has been designed by GOMACO's control specialists from what we have learned from years of experience in the field and from our customers.

**Tough New Hardware:** The new hardware includes simple but durable dials and push buttons for machine control. It features a flat-panel 165 millimetre anti-glare display screen with sensor-controlled back-light levels for superior visibility in all operating conditions. Its rugged, shock resistant construction protects it against dust, moisture and rain.

**International Appeal:** G+ expresses itself in easy to understand international icons and full script explanations. It operates in all the major languages of the world and in either imperial or metric numbers. The operator can easily toggle between English and another language on the G+ screen while paving or troubleshooting.

**Easy to Set Up:** Machine set up is easier than ever before with single-person, push-button calibration for steering and grade. It allows the operator to fine tune and dial-in their GOMACO paver for maximum smooth paving results.

**Easy to Operate:** A "run" screen on the control panel illustrates the various aspects of the paver. It includes leg positioning, paving speed and percentage of drive, steering, travel information, grade information, deviation meters, and more. Newly designed icons and colour graphics make it easy to understand and easy to identify the targeted functions. G+ now features a detailed fault history with time stamp date and information to track when each fault occurred. The odometer can give the operator an indication of yield per concrete truck, lineal production, and feet/meters of production per minute.

# BRITPAVE ROADS TASK GROUP REPORT

**Buoyed by the Highways Agency decision that in future the Specification for Highway Works will treat all road surface materials under the same performance criteria, the Britpave Roads Task Group is undertaking a number of initiatives aimed at demonstrating the long-term performance and cost benefits of insitu concrete solutions.**



Noise surveys of the M23 and A449 exposed aggregate concrete surface (EACS) are to be carried out. These are based on a 15 years assessment programme and use the same statistical pass-by methods carried out on these pavements for the TRL Report 576 'Quieter concrete roads: construction, texture, skid resistance and noise'. The aim of the surveys is to demonstrate the long-term noise reduction and surface performance of EACS.

Core testing is to be carried out on the grind and groove section of the A14 near Ipswich. TRL has recently published a major report into grind and groove concrete roads, 'Long-term friction performance of longitudinally diamond ground concrete'. The report examined two sections of the A12 Chelmsford Bypass and a section of the A14 between Whitehouse and Copdock. The sections had been treated with a longitudinal diamond grinding technique to restore surface texture and skid resistance. The report examines the potential for the widespread adoption of the technique across and the Highways Agency

network. The report with input from the Roads Task Group will be presented at the forthcoming Britpave industry seminar.

A further concrete pavement surface option being considered is roller compacted concrete (RCC). Originally developed in the 1970s, when the Canadian logging industry starting using land-based log-sorting methods and need strong heavy-duty pavements that could withstand massive loads and specialised equipment, roller-compacted concrete (RCC) is now widely used for ports, industrial and heavy-duty parking areas. It is increasingly being viewed as an economic, long-term alternative to asphalt in roads. RCC uses the same basic ingredients as conventional concrete - cement, water and aggregates – but with a drier mix that is stiff enough to be compacted by vibratory rollers. It is constructed without formal joints, contains no dowels or steel reinforcement and needs no finishing and combines the strength, long-term performance and minimal maintenance of conventional concrete with the economy and simplicity of asphalt. The Task Group is producing a RCC specification and best practice guidance booklet. The group is also planning to produce new winter working guidance for HBMs. These publications will be made available for industry and underline the valued technical outputs from Britpave.

"Concrete and flexible composite highway pavements are significantly cheaper than fully flexible bituminous options and I believe that this is a good time to be promoting cementitious paving options" said John Donegan, chairman of the Britpave Roads Task Group. "I believe RCC has a big future as a base material in highways and airfields, as well as in ports and heavy duty hardstandings. HBM specifications have been expanded to allow a wide scope in binder and aggregate selection. The Roads Task Group aims to continue promoting the specification and use of these products".

## Concrete Best Practice Conferences

**Britpave will be presenting at the forthcoming Concrete Best Practice conferences to be held at Glasgow on 2nd October 2013 and Manchester 10th October 2013.**

Organised by MPA The Concrete Centre and featuring a number of key industry organisations, the conferences will provide the latest best practical guidance for the design and construction of concrete solutions. Britpave will explaining how to get the best road soil stabilised foundation for the best road surface solution.

For further details visit: [www.concretecentre.com/events](http://www.concretecentre.com/events)

# WIRTGEN PROVIDES TOP PRECISION COMPLETELY WITHOUT STRINGLINES

In the past, the set up of stringlines has been expensive and time-consuming. Now, thanks to the AutoPilot from Wirtgen with Field Rover, this no longer applies. The satellite-aided navigation system controls the steering and cross slope of the slipform paver fully automatically – without the effort of creating a digital terrain model.

The AutoPilot Field Rover has been on the market since the beginning of the year and nominated for the bauma Innovation Award 2013. Wirtgen offers this new technology for the SP 15 and SP 15i as well as the SP 25 and SP 25i pavers. It can also be retrofitted to these machines making them well-suited for the offset installation of monolithic sections or the constructions of narrow road surfaces.

## 3,500 metres of perfection without a stringline

In February 2013, VSB infra GmbH & Co. KG, Dortmund, became the first German company to buy an SP 25i with AutoPilot. The company had tested the machine on the construction of a 3.5km long concrete protection wall on the A7 freeway near Bockenem. The 90cm high wall with step profile was built parallel to the new road surface with no need for stringlines.



The AutoPilot steered the SP 25i from Wirtgen in the construction of the 3m wide dyke path by Böhling Bauunternehmung GmbH. The height was controlled by a laser transmitter with the appropriate receiver on the paver.

Instead, measuring points were recorded at intervals of 20m with the Field Rover a few days before beginning construction. The stretch along which the construction was to be laid was plotted and individual measuring points determined. The Field Rover computes the course of the reference line from these – providing a virtual stringline. The recorded data can be viewed on the Field Rover display and re-edited if necessary before being transferred to the slipform paver by USB stick.



GROUNDBREAKINGLY  
VERSATILE.



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our customers

# SP 25

The SP 25 from Wirtgen stands for versatility and cost-effectiveness, whether it's for monolithic profiles or roadways. The mould can be positioned flexibly on either side of the machine, within or beyond the chassis. Concrete slabs can be paved at widths of up to 3.50 m in inset application. You can benefit from the innovative solutions.

[www.wirtgen.com/concrete-paving](http://www.wirtgen.com/concrete-paving)



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No stringline obstructed the construction of this concrete protection wall. The VSB infra construction team enjoyed the freedom of movement just as much as the concrete mixer drivers – they can manoeuvre in front of the paver much better without a stringline.

When starting work, the Wirtgen slipform paver moves automatically to the defined starting point and works from there along the reference line with millimetre accuracy.

The big advantage of this method is that there is no stringline to obstruct the team around the paver. The concrete mixers also have more room to manoeuvre. The time for setting the lines is saved. This is noticeable above all for radii, for example at roundabouts.



Bends with tight radii are possible without a stringline.

## Goodbye to trip hazards

Böhling Bauunternehmen GmbH in Friedeburg in Northern Germany used the system in Bosse at the southern perimeter of the Lüneburg Heath. Here, a 3m wide dyke path was constructed along the River Aller with various slopes, bends with slight elevations and long straights. Before construction, 60 measuring points along the 2km long stretch were recorded using the Field Rover.

As soon as the data are transferred to the paver and the SP 25i is installing the concrete profile, it constantly compares the current position with the nominal data. At a reference station set up at the side of the construction site the paver receives a DGPS signal which gives the position precisely with an accuracy of 1 cm. The paver control system generates the steering signals from the differences between the nominal and actual data. The driver no longer has to intervene as the

AutoPilot took over the control of steering. The machine operator is therefore able to concentrate totally on the coordination with the concrete mixer and his colleagues on the ground. They, on the other hand, appreciated being able to work without stringlines as did the drivers of the concrete mixers.



The status of the AutoPilot is continuously displayed.

While the AutoPilot steers, the height adjustment is controlled by an additional sensor. This may be an ultrasound sensor or a ski sensor, a laser receiver or a total station depending on the nature of the ground and the local topography.

At this year's Britpave Industry Seminar, Wirtgen Ltd will demonstrate their compact SP15i offset slip form paving machine in conjunction with their award winning Field Rover for Auto Pilot machine control system.

The compact SP15i Slipform paver sets new standards as a multipurpose machine for offset concrete paving. It offers heavy duty design for tough day-to-day operation together with exceptional manoeuvrability and great ease of operation. The SP15i owes its broad range of capabilities to the highly flexible arrangement of its mould and track units, the great variety of set up options makes the machine adaptable to most jobsite conditions.

Paving is much quicker with Wirtgen Auto Pilot. The 3D control system comprises a computer that is integrated in the machine and an intuitive control panel. Two GPS receivers mounted on the machine communicate with a GPS reference station on the job site. A digital terrain model is not required, as surveying and programming is carried out on the spot.

Conventional string line-free 3D-systems currently available on the market can only be operated by personnel trained in surveying, while the Auto Pilot Field Rover is designed for simple operation by the machine operator, rendering special training unnecessary. The field rover offers the first full replacement for the encumbering stringlines.

# FIBRE REINFORCEMENT ALTERNATIVE USED FOR A23 PROJECT



**This scheme is located on the A23 trunk road from the B2110 junction at Handcross to the B2115 junction at Warninglid, south of Crawley, in West Sussex. Carillion started work in October 2011 and completion is planned for the autumn 2014. Construction consists of 3.8 km dual three-lane carriageway to replace the existing dual two-lane. To improve safety, direct local residential and commercial accesses will be closed and provision made for alternative access tracks.**

Carillion contacted PJ Davidson to develop options for constructing the 3m wide access roads to outlying properties and assets. The design required cement stabilisation of the existing ground, then a 150mm thick sub-base, topped with 150mm thick concrete slab - reinforced with A393 mesh. The challenge to PJ Davidson was to use to develop a method of constructing a 3m wide concrete slab within the minimal land take. Private land meant that there was no access for plant to the side of the roads to allow concrete to be placed on pre-set mesh sheets. A method was needed to construct the track within its own width.

Slipforming the concrete was only a part of the innovative solution; the concrete would still need to be backed past the A393 mesh. PJ Davidson investigated alternatives to traditional mesh reinforcement and developed an option with Lafarge Tarmac using their Topforce product.

Lafarge Tarmac's Topforce reinforced concrete uses macro fibre reinforcement 35mm – 50mm a unique form of high strength, high modulus synthetic structural reinforcement that is distributed throughout the concrete matrix. The fibres are distributed evenly and angled at random, so they literally stitch the concrete's particles together in all directions. Macro fibres give toughness, impact and fatigue resistance to concrete. It consists of synthetic fibres that have

specifically been designed to replace welded wire fabric, light reinforcing bars and steel fibres in floor slabs (this product is not suitable for suspended slabs and is not to be confused with early shrinkage control fibres).



Wireless technology took control

PJ Davidson is the first company to use this innovative solution for slipforming Topforce synthetic macro fibre reinforced concrete.

Carillion were keen to use wireless technology to control the slipform paver. PJ Davidson has extensive experience with Leica PaveSmart 3D having first utilised this technology in 2005 in the Channel Tunnel Rail Link (CTRL) Contract 220. PaveSmart 3D replaces wires completely, Leica total stations precisely tracked the Writgen slipform machine's position and elevation. This is proved very useful where access is restricted in tunnels or where there is a narrow land take. For further information contact Alan Tuck, email: [alan@pjd.uk.net](mailto:alan@pjd.uk.net).

## Task group to forward benefits of heavy duty concrete pavements

Recognising the potential to utilise its members' expertise and experience of designing and constructing heavy duty pavements for airports for other industry sectors, the Britpave Airfields Task Group has evolved into the Heavy Duty Pavements Task Group.

The task group, which has already produced a library of technical guide for airfield concrete pavements, will focus on technical best practice guidance, innovation and market development of pavements for the port and industrial/commercial distribution centre sectors.

In particular, the task group aims to forward technical knowledge and understanding of concrete paving, provide a forum for industry and academic networking and act as a 'test-bed' for new products and processes.

Leading the Heavy Duty Pavement Task Group, chairman Daniel Jackson of Lafarge Tarmac said: "The widening of the task group's remit reflects the opportunity for the ports and industrial pavements sectors to take advantage of the considerable knowledge and experience of the task group members. In situ concrete heavy duty pavements offer long-term high performance solutions that are cost-effective, sustainable and reliable. The pan-industry membership base of the task group will enable the wider understanding and appreciation of these attributes."

To become a member of the Heavy Duty Pavements Task Group contact Steve Elliott on tel: 0118 402 9015 or email: [selliott@britpave.org.uk](mailto:selliott@britpave.org.uk)



The Britpave Heavy Duty Pavements Task Group has established its own linkedin page. Join up and keep up-to-date with the activities of the Group and network using the forum that it offers: [www.linkedin.com](http://www.linkedin.com)

## New Guidance for Rigid Airfield Pavements

**The latest in the series of Rigid Airfields Pavements Guidance Notes has been published. The new guidance, 'Pavement Quality Concrete Materials and Production', provides the background to the materials used in the design and production of pavement quality concrete. It is aimed at clients, project managers and engineers.**

Pavement Quality Concrete (PQC) is the term used for a specification of concrete developed to give highly durable surfaces in airfield and road pavement applications. PQC has been successfully used in the UK for over 50 years and can offer a service of 30 years or more with relatively



little maintenance. The guidance covers the benefits of using PQC, the choice and specification choice of materials, concrete types and mix designs, testing, production and placement.

This is the latest Guidance Notes. Other Guidance Notes include:

- Guidance Notes 1 – Concrete joints and joint sealing
- Guidance Notes 2 – Design and evaluation methods
- Guidance Notes 3 – Principles of design and assessment
- Guidance Notes 4 – Surface finish, regularity and texture
- Guidance Notes 5 – Keyed longitudinal joints for airfield pavements

All of the Guidance Notes are available free to Britpave members or £10 for non-members. For details see: <http://www.britpave.org.uk/Shop.ink>

## Shell presents new technology for sulphur enhanced concrete

**Representatives from Shell will be presenting their new technological advance, Thiocrete, at the next meeting of the Heavy Duty Pavements Task Group.**

Shell Thiocrete capitalises on the high chemical resistance of sulphur compared with Portland cement. Previously used for niche applications, its development means that concrete manufacturers can offer the advantages of sulphur for a far wider range of marine, railway and infrastructure projects plus those located in corrosive environments. Sulphur concrete is durable and can be recycled. In addition, external life cycle analyses (LCA) have found that the CO2 footprint of Shell Thiocrete can be 50 to 70 per cent lower than that of Portland cement.

The task group meeting will learn of the development and process for marking concrete with Shell Thiocrete plus its use at the pier at IJmuiden in the Netherlands and for railway sleepers will be case studied.

Contact the Britpave office, tel: 0118 402 8915, email: [info@britpave.org.uk](mailto:info@britpave.org.uk) for details of the meeting.

# SOIL STABILISATION TASK GROUP REPORT

The Britpave Soil Stabilisation Task Group is active on a number of fronts. Having been given responsibility for the reviewing and updating of 'HA74 Treatment of Fill and Capping Materials using either Lime or Cement or Both', a key Highways Agency guidance document that forms part of the Design Manual for Roads and Bridges, Britpave is working with HA for its endorsement of the first document review.



Britpave being given the responsibility for maintaining and developing HA74 is based on HA's recognition that, as industry practitioners, the

members of Britpave are best placed to ensure the validity of the guidance. The role of guardian for the HA74 has been warmly embraced by the Task Group as Al McDermid, Task Group Chairman, explained: "Members of the Task Group include both clients and contractors. Between them they have wealth of practical experience. Advice Notes such as HA74 are meant to be practical guidance documents. It therefore makes sense that those with practical, hands-on experience are the ones ensuring that the guidance is kept fully up-to-date with current best industry practice".

In other developments, the Task Group has been provided with funding to support the development of a NHBC soil stabilisation specification for housing developments. This specification has the potential to increase market share for Britpave members. The Task Group, with the support of Britpave member Balfour Beatty, has undertaken research on updating swell testing. The results will form the basis of new Britpave publication.

Together with the Britpave Rail Task Group, members of the Soil Stabilisation Task Group attended a meeting with HS2. Given the proposed route, HS2 are very interested in the range of soil stabilisation solutions for sulphates. The Task Group Chairman, Al McDermid, will 'spread the gospel' of soil stabilisation by presenting at the forthcoming British Lime Association seminar (details below) and Concrete Best Practice conferences in Glasgow and Manchester organised by MPA The Concrete Centre. For details visit: [www.concretecentre.com/events](http://www.concretecentre.com/events)

## Lime in Construction Seminar

Britpave member, the British Lime Association, is to hold a Lime in Construction seminar on Thursday 24th October 2013 at the Arsenal Emirates Stadium, London. The seminar will examine the beneficial use of lime for civil and building projects.

Speakers include John Jones from the National House – Building Council, Peter Nicholas and Andy Warneford from Ground Developments, Gareth Brown from WRAP, Paul Edwards of Lafarge Tarmac, Didier Lesuseur from the European Lime Association and Gordon Airey from Nottingham University. Also featured is our very own Al McDermid, Chairman of the Britpave Soil Stabilisation Task Group, who will be presenting on the use of lime remediation solutions in construction projects.



For further details and booking visit: [http://www.britishlime.org/documents/BLA\\_Seminar\\_Invitation\\_24\\_October\\_2013.pdf](http://www.britishlime.org/documents/BLA_Seminar_Invitation_24_October_2013.pdf)

## Britpave Rail Task Group Report

**The current main focus of the Rail Task Group is the development of and promotion of concrete slab track solutions.**

To this end, a very constructive meeting has been held with HS2. Although HS2 recognise the long-term performance benefits of concrete slab track, their lack of experience with the system means that they are unsure of future maintenance requirements despite evidence the concrete slab track requires far less unplanned and ongoing maintenance than ballast track.

Chairman Joe Quirke and Charles Penny, representing the Britpave Rail Task Group, forwarded the wide range of arguments for the use of slab track and believe that HS2 is now more enlightened than they previously were. The Task Group has also been approached by Crossrail and is to contact Network Rail.

To help forward the arguments for slab track, the Task Group is to develop and publish a new slab track installation guidance. This will be written from the viewpoint of the client, in so much that it will fully address design, ease of installation, performance and lack of unplanned maintenance issues from their viewpoint. It is planned to invite representatives from Crossrail and Network Rail to future Task Group meetings in order to obtain their buy-in to the proposed guidance. "Concrete slab is successfully used throughout Continental Europe, Japan, and America. Despite the widely recognised and proven benefits, in the UK only limited sections of slab track have been installed", said Joe Quirke, Task Group Chairman. "This must be addressed".

The Task Group is also keen to develop the market for slipformed guided bus lanes and is interested in the trials of slipformed bus lanes being undertaken by Britpave member Extrudakerb. When these trials are complete it is planned to use their results to forward the argument for slipform against precast.

## Down under rail track solution for UK

**Australian Britpave member JD Rail has developed a rail track system that will negate the problems ballast degradation and track washout that affected parts of the UK rail network last winter.**

JD Rail believes that ballast tracks have several failings not least of which is that even the highest quality ballast only has a vertical compression resistance of 30 tonnes per axle, the significant degradation caused by weather events and that good quality ballast is becoming harder to find and transport.

As a solution, the company has developed the Smart-Trac system. It is 48 tonne axle load rated, as certified by the Society General de Surveillance, NATA and the National Australia Testing Authority. It is fast to install, using forklift trucks up to 4 – 5 metres a shift can be laid. Plus all Smart-Trac blocks are fully cured and take any type of sleeper, gauge or sleeper spacing. Compared with ballast track, it offers a 90% reduction in maintenance requirements and has a performance life of up to 100 years. When carrying out repairs, broken or cracked sleepers are simply removed and replaced. There is no need for tamping.

For passengers, Smart-trac offers a comfortable and safe journey with reduced noise and vibration. Plus the lack of maintenance means significantly less track disruptions and delays. For the train operator and track provider the system offers fast installation, long-term performance and minimum maintenance at a cost that is economic.

For further details visit: [www.jdrailsolutions.com.au](http://www.jdrailsolutions.com.au)



Smart-trac offers a high-speed track system

# Benefits of Britpave membership

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 and market leaders in in-situ concrete and cementitious solutions, contractors, consultants and engineers, materials and concrete suppliers, equipment suppliers and academic institutions. Together they have an impressive wealth of experience and knowledge. Specific benefits of being a Britpave member include:

- Joining a collective voice to forward in-situ concrete and cementitious infrastructure solution
- Representation of industry views to government and key stakeholders
- Development of market opportunities within the infrastructure sector
- The opportunity to influence the development of industry standards and market sectors
- Attendance and networking at sector-specific Task Groups
- Raising business profile via Britpave newsletters, annual New Civil Engineer special report and Britpave website plus sponsorship of industry seminar and dinner
- Discounted attendance to annual industry seminar and awards dinner
- Access to online technical information and guidance library on the Britpave website
- Free receipt of Britpave publications, technical reports and other outputs

## New Members

Welcome to the following new Britpave members:

### JP Donegan Consulting Engineers

John Donegan, as General Manager of SIAC UK, was one of the founder members of Britpave in 1991. In 2004, John joined David York at the Roller Compacted Concrete Company Ltd, which became part of Aggregate Industries in 2006. Between 2006 and 2012, John acted as technical director for Bardon Composite Pavements (within Aggregate Industries), specialising in RCC and HBM in highways, airfields and ports. He has served as chairman of the Britpave Technical Committee and has been chairman of the Roads Task Group since 2008, contributes to the Rail and Heavy Duty Pavements Task Groups and also serves on Council.

Earlier this year, John formed JP Donegan Consulting Engineers to provide technical support to industry partners in pavement engineering, with particular emphasis on RCC and HBM. John Donegan can be contacted at JPDonegan.Consult@gmail.com

### EMDD – Universal Diamond Drilling



As a leading concrete cutting contractor with over 30 years experience, EMDD – Universal Diamond Drilling looks forward to bringing its knowledge and expertise to Britpave, to give advice and guidance to members on a wide range of soil preparation, pavement sawing, drilling, grinding, and traffic management techniques and services.

EMDD are currently working closely with Britpave member, Fixing Centre Ltd, as a preferred installer of lighting column and signage fixings on extruded concrete barriers. Their workforce consists of highly qualified and experienced technicians, managed by a team of graduate supervisors whose qualifications include mechanical, legal, civil and structural engineering. For further information visit: [www.emdd.com](http://www.emdd.com)

There are three types of membership available:

**Corporate membership:** In addition to the benefits outlined above, corporate membership allows full participation, voting rights and attendance of task groups

**Academic/Corresponding Membership:** Academic membership is for universities, colleges and educational bodies. Corresponding Membership has been developed for international companies who, due to their geographical location, are unable to attend meetings or contribute to Britpave task groups. Neither membership category has voting rights.

**Affiliate Membership:** Affiliate membership is available for trade associations who represent a number of product sectors wishing to join and attend Britpave task group meetings. This category has no voting rights.

■ For details on how to join Britpave, contact the Britpave office on tel: 0118 402 8915 or email: [info@britpave.org.uk](mailto:info@britpave.org.uk)

## Britpave Members at 31 August 2013

Accumix Concrete Ltd - [www.accumix.co.uk](http://www.accumix.co.uk)  
Ove Arup & Partners Ltd - [www.arup.com](http://www.arup.com)  
Atkins Ltd - [www.atkinsglobal.com](http://www.atkinsglobal.com)  
Balfour Beatty Ltd - [www.balfourbeatty.co.uk](http://www.balfourbeatty.co.uk)  
Ballast Phoenix Ltd - [www.ballastphoenix.co.uk](http://www.ballastphoenix.co.uk)  
BAM Contractors - [www.bamcontractors.ie](http://www.bamcontractors.ie)  
Bardon Composite Pavements t/a Aggregate Ind - [www.aggregate.com](http://www.aggregate.com)  
Barton Plant Ltd - [www.barton-plant.co.uk](http://www.barton-plant.co.uk)  
Beach Soil Stabilisation Ltd - [www.beachstabilisation.com](http://www.beachstabilisation.com)  
Birse Civils Ltd - [www.birsecd.co.uk](http://www.birsecd.co.uk)  
British Lime Association - [www.britishtlime.org](http://www.britishtlime.org)  
Britpave Barrier Systems Ltd - [www.bbsbarriers.com](http://www.bbsbarriers.com)  
Carillion Group - [www.carillionplc.com](http://www.carillionplc.com)  
CEMEX UK - [www.cemex.co.uk](http://www.cemex.co.uk)  
Combined Soil Stabilisation Ltd - [www.combinedssl.co.uk](http://www.combinedssl.co.uk)  
Complete Design Partnership Ltd. - [www.cdpbroms.co.uk](http://www.cdpbroms.co.uk)  
Costain Ltd. - [www.costain.com](http://www.costain.com)  
Dublin Airport Authority plc - [www.dublin-airport.com](http://www.dublin-airport.com)  
East Midlands Drilling - [www.emdd.com](http://www.emdd.com)  
Elkem Materials Ltd - [www.concrete.elkem.com](http://www.concrete.elkem.com)  
Enterprise Mouchel Ltd - [www.enterprisemouchel.com](http://www.enterprisemouchel.com)  
Extradakerb Ltd - [www.extradakerb.co.uk](http://www.extradakerb.co.uk)  
Ferrovia Agroman (UK) Ltd - [www.ferrovia.com](http://www.ferrovia.com)  
Fixing Centre Ltd - [fixingcentre@btconnect.com](mailto:fixingcentre@btconnect.com)  
Fjori Ltd - [www.fjori.com](http://www.fjori.com)  
Geofirma Soils Engineering Ltd - [www.geofirma.co.uk](http://www.geofirma.co.uk)  
Gill Civil Engineering Ltd - [www.gillgrouphouse.com](http://www.gillgrouphouse.com)  
Gomaco International Ltd - [www.gomaco.com](http://www.gomaco.com)  
Halcrow Group Ltd - [www.halcrow.com](http://www.halcrow.com)  
Hanson UK Ltd - [www.hanson.biz](http://www.hanson.biz)  
Interserve Construction Ltd - [www.interserveplc.co.uk](http://www.interserveplc.co.uk)  
Joe Rookcroft & Sons Ltd - [www.rookcroffencing.co.uk](http://www.rookcroffencing.co.uk)  
John Donegan Consultant - [JPDonegan.Consult@gmail.com](mailto:JPDonegan.Consult@gmail.com)  
Kerbing West Slipform Ltd - [www.kerbingwest.com.au](http://www.kerbingwest.com.au)  
Lafarge Tarmac Ltd - [www.lafargetarmac.com](http://www.lafargetarmac.com)  
Lagan Construction Ltd - [www.laganconstruction.com](http://www.laganconstruction.com)  
Mesta AS - [www.mesta.no](http://www.mesta.no)  
Morgan Sindall plc - [www.morganest.com](http://www.morganest.com)  
Norder Design Associates Ltd - [www.norder.co.uk](http://www.norder.co.uk)  
P J Davidson (UK) Ltd - [www.pjd.uk.net](http://www.pjd.uk.net)  
Rapid International Ltd - [www.rapidinternational.com](http://www.rapidinternational.com)  
RJT Excavations Ltd - [www.rjtexcavations.co.uk](http://www.rjtexcavations.co.uk)  
RPS Group plc - [www.rpsgroup.com](http://www.rpsgroup.com)  
SIAC Construction Ltd - [www.siac.ie](http://www.siac.ie)  
Skanska UK plc - [www.skanska.co.uk](http://www.skanska.co.uk)  
TRL Ltd - [www.trl.co.uk](http://www.trl.co.uk)  
Tyrolit Ltd - [www.tyrolit.com](http://www.tyrolit.com)  
University of Nottingham - [www.civeng.nottingham.ac.uk](http://www.civeng.nottingham.ac.uk)  
UK Quality Ash Association (UKQAA) - [www.ukqaa.org.uk](http://www.ukqaa.org.uk)  
VolkerFitzpatrick Ltd - [www.volkerfitzpatrick.co.uk](http://www.volkerfitzpatrick.co.uk)  
Wirtgen Ltd - [www.wirtgen.co.uk](http://www.wirtgen.co.uk)



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