

# Newsletter

**britpave**

The British In-situ Concrete Paving Association

Summer 2003 | 7

## Barriers – BOOST FOR CONCRETE

Before the recent news about the widening of motorways, the Highways Agency had already announced that it is to increase its use of concrete safety barriers on the motorway network over the next few years. Brian Barton, group manager of safety strategy and management for the Highways Agency said "We will be rolling out wider use of concrete barriers, particularly in motorway widening schemes, where its use is appropriate".

He also said that concrete barriers could bring major saving for the Agency, as they require much less maintenance than steel, and added that reduction of maintenance needs would improve safety for road workers and reduce congestion. But he said each time new barriers were erected analysis would be done in order to determine the best solution.

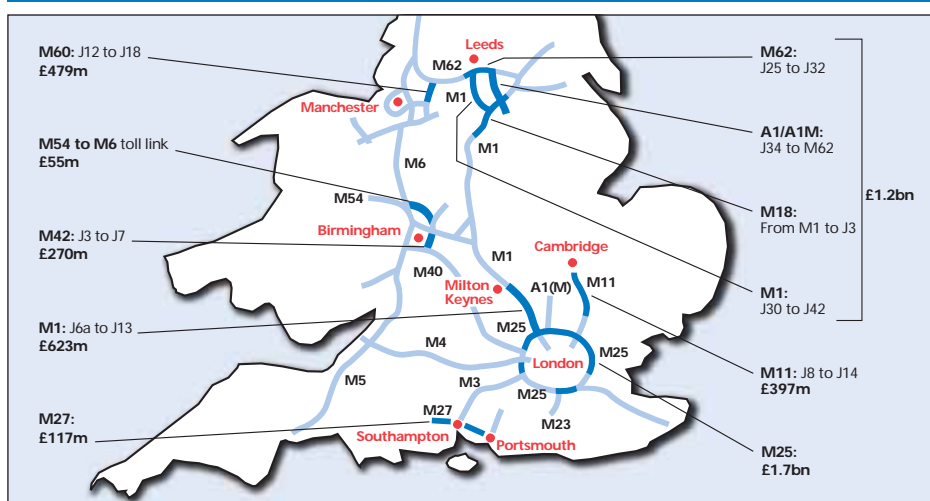
Britpave welcomes this announcement and the acceptance for the first time that concrete barriers require less maintenance than steel.

Britpave continues to argue the safety case for concrete barriers, and in particular the way in which they can prevent the most serious of all accidents – the crossover.

To date, in the UK, no concrete barrier has been breached, and there have been no crossover accidents where concrete is installed.



## Government announces motorway widening schemes



### Motorway improvement plans

Announcing tentative approval for a series of motorway and A road widening schemes, Alistair Darling, the Transport Secretary, said that road charges would allow the extra road space to be 'locked in', rather than eroded by growth in traffic. He has ordered a study to examine the feasibility and likely effect of charges, but stressed that no system could be introduced before 2010.

Of the 46 improvement decisions, Mr Darling gave a firm go ahead to four, rejected seven and asked the Highways Agency to reconsider four others.

Of the four definitely approved schemes, the largest is the £623m widening of 26 miles of the M1 between the M25 and Milton Keynes. Originally built in 1959, it carries 175,000 vehicles a day, twice its design capacity, and is the third most congested stretch of road after the M25 near Heathrow and the M6 north of Birmingham, both of which have improvements in hand.

It is hoped that the southern part of this scheme will open by 2008, eight years after its initial approval in 1996 under the previous government.

Among the plans are schemes to improve the M25 that amount £1.7bn.

Already approved is the widening of the road just south of the M4 to six lanes each way and the stretch down to the M3 to five lanes each way. The rest of the motorway that is not yet four lanes wide will be upgraded to that level.

There are plans to hold a trial of 'active traffic management' on the M42 near Birmingham. This follows an initiative in the Netherlands where traffic flow improved where the emergency lane is open to normal traffic. In the UK it is planned to use the hard shoulder at peak times in a TV monitored trial.

### Diary Dates

**Visit to Belgium**  
1 & 2 September

**Britpave Conference 2003**  
29 & 30 September  
Tortworth Court Hotel,  
Wotton-under-Edge, Glos  
(J14 on M5)



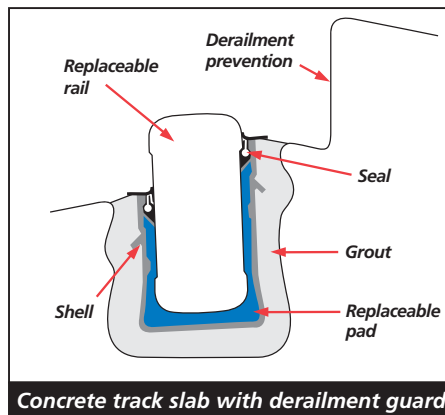
# Slabtrack breakthrough

In a major breakthrough in this country, trains will soon be running on a trial section of slabtrack. Work was completed earlier this summer on 150 metres of track for a trial scheme installed for Network Rail by Britpave members, Balfour Beatty Rail, on the West Coast Mainline near Crewe.

The Balfour Beatty embedded rail system provides a stable and continuous support for the rail system that is embedded in reinforced concrete. The C40 concrete was slipformed by Britpave member Extrudakerb using a Gomaco Commander 3.

Major benefits of this type of rail construction include:

- Continuous support for the rail so reducing rail stresses, buckling and wear.
- Reduced maintenance, so reducing costs and minimising risk to track workers.
- Reduced whole life cost when compared to ballasted options.



- Provision of the optional derailment guard, preventing derailment before it can occur.
- Lower height options in tunnels when compared with ballasted track.
- Lower weights for bridge and viaduct decks where dead weight must be minimised.
- A reduction in the use of quarried aggregates, with the sustainability implications.



*Balfour Beatty embedded slabtrack was awarded first prize in the Construction News 2003 Quality in Construction Awards for Research and Development (Construction Products). On the left is the Special Track Systems team, who were presented with the award at a dinner held at the London Hilton on 26 March.*

## BRITPAVE JOINS FORCES WITH HA TO ASSESS CBM

Britpave is collaborating with the Highways Agency on a jointly funded research project, which should result in a change to the Specification for Highway Works to allow the immediate trafficking of cement and other hydraulically bound materials.

At present CBM is disadvantaged since curing periods mean longer possession times, with adverse cost implications. As a result, CBM is little used in maintenance work. The project will assess the early trafficking of CBM, and laboratory investigations will be

confirmed by site trials. Work will commence in August and is due to be completed by the end of February 2004.

Draft advice for inclusion in SHW and DMRB will be prepared.



## The Crossrail saga

The Government has finally given its approval 'in principle' to the major £10bn Crossrail east-west rail link through London. There is disappointment that the scheme is unlikely to be ready for the 2012 Olympics, for which London is bidding, and there is still some uncertainty about the level of public-private finance.

### Progress to date

**1989.** Study proposes east-west link. British Rail and London Transport begin planning work.

**1994.** £2bn scheme rejected by Parliament as projected passenger numbers fall.

**1995.** Government proposes new version of the scheme, using parts of the Central Line.

**1996.** Crossrail is shelved by Sir George Young, Conservative Transport Secretary at the time.

**1999 – 2001.** Pressure grows for scheme from City and business leaders in London.

**2002.** Crossrail London Rail Links company formed to press the case for the scheme by Transport for London and the Strategic Rail Authority.

**2003.** Government backing finally given as estimated costs rise to more than £10bn.

## BRITPAVE'S VISIT TO BELGIUM

1 & 2 September

Belgium has a long history of concrete roads, and its government has a policy of building connecting roads between all the major urban centres. Their standard running surface is exposed aggregate concrete.

Britpave has arranged to visit major CRCP inlay works on the E40 between Ostend and Brussels. Paving is being carried out in live traffic conditions and production of 1,200 metres per day of paving is being achieved. Steel barriers are being replaced by Belgian style concrete barriers in this contract.

Britpave visitors will also see CRCP on the Ghent ring road, the Dutch 'step barrier' and see the low noise surfaces test road at Herne. Presentations by the Belgian Road Administration and Febelcem, the Belgian Cement Association, will ensure that the philosophy and strategy behind the decision to choose concrete paving will be discussed.

Details from  
[gcampbell@britpave.org.uk](mailto:gcampbell@britpave.org.uk).





# UK Soil Stabilisation Group — strengthens base

The UK Soil Stabilisation Task Group was formed in earlier this year as a focus group to promote and enhance the soil stabilisation industry. Initiated by the major contractors, the Group has the following objectives:

1. To act as a focus group for contractors, engineers, clients, materials and equipment suppliers and all those concerned in the planning, design and execution of soil stabilisation.
2. To improve and extend knowledge of new ideas and practices of soil stabilisation techniques.
3. To encourage and participate in the practical application of research related to soil stabilisation.
4. To gather, collate and disseminate information to ensure the most economic and effective applications of soil stabilisation techniques.
5. To improve understanding by the public, local and central government of soil stabilisation techniques.
6. To establish contacts with European and international groups and associations working on related goals.

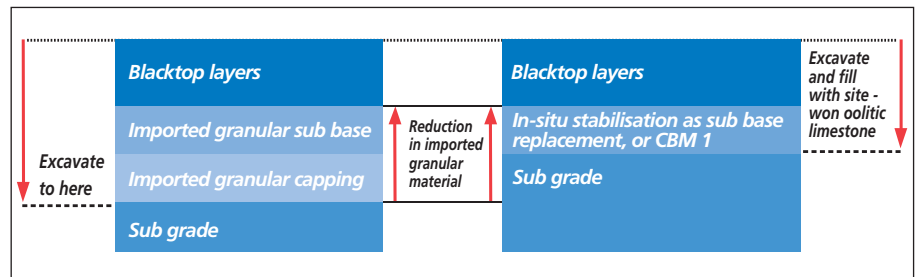
At their last meeting in June, the Group was told of the planned reduction in the number of landfill sites able to receive hazardous waste from the current 200 or so to about 14 by 2005. This is likely to lead to an increase in the use of soil stabilisation to remediate brownfield sites.

It is important that the industry should make customers aware of the wide range of uses for stabilisation and solidification, as the techniques are often an invaluable part of the overall solution

The solutions available for the in-situ treatment of soil containing sulfates were discussed and it was agreed to produce a datasheet.

- To join this Task Group or for more information its activities, contact Brian Heron on **020 8903 2624** or Jonathan Smith on **01787 224532**

## CBM replaces imported material on A6 bypass



### Original option leaving surplus

Site-won material was used to advantage on a 5.5 km stretch of the A6 Rushden to Higham Ferrers Bypass by McArdle Stabilisation in a contract ending this summer.

When it became clear to the main contractor on the project, Associated Solutions (Aggregate Industries) that a substantial surplus of material was to be disposed of offsite, they considered the option of stabilisation of site-won materials to replace imported granular sub-base. This would avoid the environmental impact that would be caused by many lorry movements and also produce an added financial benefit.

McArdle first carried out a substantial investigation across the site to

### Revised pavement design incorporating in-situ soil stabilisation

establish that the site material was suitable both chemically and physically for stabilisation and to determine the mix designs. The investigation revealed that the oolitic limestone from the northern end of the site was most suited, and it was excavated and placed into a road box excavation for in-situ stabilisation.

The proposal to depart from specification was formally submitted to the Client, the Highways Agency, who approved the in-situ stabilisation option.

On this greenfield site, bulk earthworks amounted to about 120,000 m<sup>3</sup>, and some 8,500 m<sup>2</sup> in in-situ CBM and 67,000 m<sup>2</sup> of sub-base replacement were used.



Soil stabilisation on the A6 Rushden to Higham Ferrers bypass



# Britpave Annual Conference & Dinner

29 - 30 SEPTEMBER

## Dinner *Monday 29 September*

19.00 for 20.00 Drinks, Reception and Exhibition

The Dinner is a first class social event that offers members real opportunities for networking and is an ideal occasion at which to entertain clients and customers. Afterwards we will be entertained by Barry Williams, one of the country's premier after-dinner speakers. The formative years of Barry's life as an entertainer were spent as an award winning stand-up comedian, but the after-dinner arena now is an ideal stage for his style of humour. Barry is guaranteed to make this 12th Annual Dinner one to remember.

## For the Ladies

Tortworth Court is a splendid Victorian 'pile', painstakingly and sympathetically restored to its former glory, while incorporating the comforts and facilities expected today. One of England's foremost Gothic mansions, Tortworth Court stands on the Costwold Edge, a dramatic escarpment that falls away to the Severn Valley. It is within easy reach of Bristol and the many charming Cotswold villages. For those who prefer to stay close at hand, there are beautiful gardens, woodland walks and the leisure centre, which includes a pool, spa bath, gym, sauna, steam room and a beauty therapy suite.

## Seminar *Tuesday 30 September*

Britpave is delighted to welcome Ginny Clarke, Chief Highways Engineer, Highways Agency, as its keynote speaker at this 12th Annual Seminar. Ms Clark has promised to make this a challenging opening address and we look forward to hearing from her.

### Morning Session 1

**09.00 – 09.30**  
Registration, coffee and exhibition

**09.30 – 09.40**  
Welcome and Introduction  
JONATHAN GREEN  
*Chairman, Britpave,  
Executive Director, Burks Green*

**09.40 – 10.15**  
Keynote Address  
GINNY CLARKE  
*Chief Highways Engineer and  
Director responsible for Safety,  
Standards and Research,  
Highways Agency*

**10.15 – 11.00**  
Upgrading concrete roads in Austria to meet the challenges of the growing EU  
PROFESSOR HERMAN SOMMER  
*Consultant*

**11.00 – 11.30**  
Coffee and viewing Britpave members' stands

### Morning Session 2

**11.00 – 12.30**  
Response and presentations of Task Group activities  
BRITPAVE TECHNICAL COMMITTEE

**12.30 – 13.00**  
New European Concrete Standards  
DR JIM TROY  
*Director of Concrete & Mortar Technologies – Tarmac Ltd*

**13.00 – 14.00**  
Lunch & Exhibition

### Afternoon Session

**14.00 – 14.30**  
M6 Toll – Large scale concrete paving  
CLIVE CRIPPS  
*Technical Service, McAlpines*

**14.30 – 15.00**  
Slabtrack: Cost effective low noise slabtrack  
RICHARD GREER  
*Associate Director, Ove Arup*

**15.00 – 15.30**  
Re-cycling in concrete paving  
DR KHALED HASSAN  
*Senior Scientist Engineer, TRL*

**15.30 – 16.00**  
Terminal 5 - The PQ paving  
RICHARD MOORE  
*Terminal 5 Pavement Design Engineer, BAA*

**16.00 – 16.30**  
Breaking News and close







# 'Keeping Britain Moving'

**BOOKINGS MUST BE RECEIVED BY 1 SEPTEMBER.  
THE HOTEL WILL ONLY GUARANTEE ROOMS UNTIL THAT DATE**



## **Tortworth Court**

*Tortworth Court is a magnificent hotel set in 30 acres of parkland. Created from a grade II\* Victorian mansion, it has a full range of leisure facilities, including a golf course just a few miles away (see right).*

## **Exhibition space**

During the breaks for coffee and lunch on 30 September, attendees will be able to visit the stands set up by Britpave members.

Those exhibiting are able to set up from 3.0 pm on the Monday and will be able to take down after lunch on Tuesday.

For more information and to book the last few remaining stands ring Gillian Bond on **01494 817007**.

## **Hotel booking arrangements**

Tortworth Court is holding a number of rooms at preferential rates for those wishing to stay overnight on 29 September.

Please make your own reservations with the Hotel, on **01454 263000**, mentioning Britpave to obtain the special room rate of £85.00.

**It is essential to book by 1 September.**

## **Britpave Golf Day** *The Britpave Cup*

A Golf Day has been organised for Monday 29 September at the nearby Thornbury Golf Centre. The prize is the glittering Britpave Cup, which was presented by last year's winners Burks Green and SIAC.

The format is the same as last year with teams of two playing a four-ball better ball stableford competition (maximum handicap 24). This means that two teams of two players tee off together and the team score at each hole is the better of the two players.

Tee-off times are between 10.30 and 11.30 am, and players are likely to be back at the hotel by about 4.30 pm.

Why not get team together and challenge teams from other Britpave members?

- Full details of the competition are available from Michelle Ivery on **01992 305000** or email her at **michelle.ivery@fitzpatrick.co.uk**

## **Booking for seminar**

You will already have received the programme for the Seminar with a booking form. For your convenience you may also book online at

**[www.britpave.org.uk](http://www.britpave.org.uk)**



# Keeping up-to-date with **Britpave**.....



On 25 March, Britpave took its case for a better transport infrastructure to the House of Commons. Attended by Members from both Houses, the 'Keep Britain Moving' campaign was launched at a reception sponsored by MP for Bracknell, the Right Honourable Andrew MacKay.

The CD-ROM, Keeping Britain Moving was showcased at the reception and has since been mailed to all MPs, the media and transport related organisations. A leaflet, News Extra, which described the reception has also been published and circulated to all members.

**New CD-ROM**  
**'Keeping Britain**  
**Moving'**



## The case for truck lanes

Our roads carry around 85% of all domestic freight. Typically, the passage of just one heavy good vehicle does the same amount of damage to the road as 100,000 cars.

This is the powerful message put across in Britpave's latest **Technical Guidance Sheet**, *The case for truck lanes* which examines the case for concrete truck lanes.

After explaining how they can be introduced into an existing motorway, the Guidance Sheet goes on to assess the environmental benefits of concrete truck lanes, in response to the Government's target of 'providing a transport system that makes less impact on the environment':

**Fuel savings** – recent research indicates that fuel savings of up to 17% can be achieved by HGVs when the run on concrete pavements as opposed to asphalt.

**Reduced congestion** – longer lasting concrete pavements result in less maintenance and hence less congestion and lower emissions from the free flowing traffic.

**Eliminates rutting** – this is a safety problem which often causes premature maintenance of the slow and middle lanes of motorways.

**Lower use of primary aggregates** – pavement quality concrete can be made using recycled aggregates, so saving on the use of virgin material.



## Paving over lunch

A Britpave team comprising John Donegan, Tim Gibbs, Rory Keogh and James Charlesworth gave a lunchtime presentation to Arups in Solihull on slipform paving. The audience of around 60 designers heard about the practical side of paving road, rail, guided bus lanes, drainage channel and barriers. From the detailed questions it was clear that a lot of valuable information had been put together and this presentation is now being refined with a view to making it more widely available on CD.

## Honours for Britpave members

Britpave Council member, **Chris Howe** was part of the **Skanska** team that worked with Mott McDonald on their tunnel jacking project on the Boston Central Artery in the USA. The project was awarded the *Construction News* Quality in Construction Award at a gala dinner in March

The innovative project, completed to time and to budget, has been a resounding success and a real engineering triumph. It required a major leap in scale as it was over 10 times the size of any jacked tunnels attempted in the US before, and has involved many firsts in innovation, introduced and developed by British engineers. Edmund Nuttall were also involved. The project created considerable commercial success for the companies and contributed over US \$300 million in construction savings.

**David York of Sitebatch** has been appointed as Industrial Fellow in the School of Engineering at the University of Nottingham. The university makes a number of these appointments so that distinguished practitioners in the professions, business or industry may, by lectures or seminars with students or by collaboration in research, strengthen the links between the University and those engaged in practical experience in relevant professions. This is a well-deserved recognition of David's wide-ranging expertise, and Britpave sends its congratulations.



# News from the industry - *at home and abroad*

## 10 year transport plan in trouble

2010 targets	Progress after two years
<b>Congestion</b> – reduce by 6%	Congestion rising and due to grow by 11% – 20% by 2010.
<b>Rail travel</b> – increase by 50%	Rail travel up by 1%. Should have been up 10% by 2002.
<b>Rail freight</b> – increase by 80%	Only 3.3% increase so far. Should have been 16% to hit target.
<b>Improve rail reliability</b>	Only 79% of trains run on time compared with 88% before the Hatfield crash in October 2002.
<b>Cycling</b> – triple number of journeys	13% up in London, but 17% fall elsewhere. Should be up 40% by 2002.
<b>Bus reliability</b> – run 99.5% of timetable trips	Only 98% of timetable was run in last quarter of 2002.
<b>Bus journeys</b> – increase by 10%	15% rise in London since congestion charging, but falling almost everywhere else.
<b>Road accidents</b> – 40% fall in number killed and injured	17% fall achieved; target was 8% fall.

## FITZPATRICK STARTS WORK ON M25

Fitzpatrick has recently started work on an £11m contract to carry out major maintenance work between Junctions 26 and 27 of the M25. They worked closely with the surfacing partner, Aggregate Industries, to provide a best value solution for the scheme, which is due to end in mid-September.

The project, which started early in July, involves the first remedial work to CRCP on the M25. The repairs to both carriageways of the 5.5 km stretch of road are being carried out on a 24-hour, 7-day basis, under lane rental conditions. Full replacement of the CRCP westbound lane of the Bell Common Tunnel will also be undertaken.

Other work includes bearing and parapet replacement on the Honey Lane and Woodgreen underbridges; hardening the central reserve; cleaning existing and installing new drainage; installing 15 km of safety fencing; installing column lighting to the central reserve and verges; and replacing road markings.

## Expansion favoured over new airports

An all-party group of MPs has recently concluded that expansion at existing airports rather than building on greenfield sites is the best way forward.

The committee called for increased runway capacity at the earliest opportunity at Heathrow and for preparations to be made for later expansion at Gatwick.

It warned that new strips might take 15 years to plan and complete and suggested that, in the meantime, RAF Northolt might be used as 'feeder' for Heathrow and Redhill for Gatwick.

At Heathrow, allowing the two existing runways to be used for both take-off and landings could bring a quicker improvement, said the MPs. Switching to mixed mode could create a further 50,000 slots year, an increase of more than 10%.

The MPs stressed the essential role of good air links from the provinces to the nation's hub airport for the success of regional economies, and suggested that some of the new runway slots should be reserved for regional routes.

## BRITPAVE'S LOCAL MP IS BRIEFED



Jonathan Green and David Jones with the Rt Hon Andrew Mackay, who visited Britpave's office recently for a full briefing on the organisation's activities. Andrew has expressed his support for our campaign for the more widespread use of concrete barriers

## Sustainable development report

The British Cement Association and The Concrete Centre are facilitating a project to develop a sustainable development strategy for the cement and concrete sector. They are supporting a Sustainability Team drawn from companies and trade associations committed to sustainable development, including Britpave.

The detailed aims and an interim report of progress made was recently published and is available at [www.concensus.info](http://www.concensus.info), where more information about the project can also be found.





# Britpave's AGM combines visit to CTRL'S STRATFORD SITE

After Britpave's AGM in June those who attended were treated to a site visit by Skanska to its massive project to construct the new International Station serving the Eurostar link to the Continent. The main element is the Stratford Box that will house the station, platforms, crossovers and links to local lines all below ground level.

The site poses particular difficulties for Skanska as it has been used for a gas works and train refuelling depot, and it is threatened by rising aquifers.

Costing £105m, the contract is due for completion in September 2005, with the project as a whole due to finish in 2007 when the first Eurostar trains will run into St Pancras.



*Seen from the air, the Stratford Box runs diagonally from the lower right. It is 1000 m long and up to 50 m wide and 24 m deep.*



*Britpave members appreciate the scale of the works.*



*The box beginning to take shape.*

## Spanish engineers visit M6 Toll



*Britpave was pleased to arrange a visit by four Spanish visitors to the M6 Toll site. They were able to watch paving at this major project that is due for completion early 2004. Pictured above are (left to right): Luis Garrido and Jesús Díaz (IECA), Rodolfo Vázquez (FCC), Carlos Jofré (Technical Director, IECA) Clive Cripps (McAlpine) and Chris Jackson (CAMBBA).*



The British In-situ Concrete Paving Association

*Britpave Newsletter* 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.

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