

Long Term Vision Needed to Keep Britain Moving

David Jones, Director of Britpave, the transport infrastructure group

Successive Government under-investment combined with short-term five and ten year plans has resulted in a transport infrastructure that is simply not up to the job. The state of our crumbling transport infrastructure is having direct detrimental impact on the national economy. A survey from the Confederation of British Industry reports that the continual delays and congestion experienced on Britain's roads and railways are dissuading foreign investors from setting up their operations in the country. Meanwhile, market researchers Key Note have found that the congested roads and unreliable public transport is putting off visitors from abroad.

This should come as no surprise as we try to make-do-and-mend with a motorway network that needs continual maintenance roadworks with lanes regularly taken out of action despite there being a long-lasting road building solution. We go against sensible economic reasoning by installing steel motorway barriers that need replacing every time they are hit despite there being a proven barrier solution that lasts for over 50 years without the need for replacement or maintenance. Furthermore in the 21st century we run a rail network based on a 19th century ballast track system – the maintenance costs of which mean that there is no money available for real rail improvements only for patch and mend.

What is needed in Britain is a long-term vision that goes beyond the current short-term, expensive and ultimately flawed quick-fix solutions. Government and the Department of Transport need to have the imagination to examine transport solutions that offer a life-span of at least 40 years before needing any extensive maintenance or replacement. To address this issue, Britpave, the transport infrastructure group,

launched in 2003 its "Keeping Britain Moving" campaign. The campaign highlights that many of the current problems lie in the actual fabric and construction of the UK's transport infrastructure and puts forward long-term solutions for motorways, crash barriers, the rail network and airports.

The UK road network carries 95 per cent of all freight traffic. The impact of this on the lifespan of roads is considerable. Typically, one heavy goods vehicle does the same amount of damage to a road as 100,000 cars. The impact of this structural damage means that motorways require constant maintenance with lanes often taken out

of action for repair. The solution is to construct the inside lanes, most used by freight traffic, with jointless concrete that is surfaced with easily renewed asphalt. This is a structural solution that can cope with intensive traffic weight without the need for repetitive maintenance.

The same benefits of long-term performance and no undue maintenance results from the installation of concrete crash barriers which, despite their proven ability to prevent cross-over accidents and no need for replacement if hit, have only been installed on limited sections of the motorway network. Since 1995



Concrete barriers need no ongoing maintenance.

slipformed concrete barriers have been installed on sections of the M1 and M25. Since their installation there have been no reported cross-over accidents nor any required maintenance or repair despite there being evidence of vehicular impact. Steel barriers, however, are not always able to prevent a vehicle from crossing over into the path of oncoming traffic and need replacing every time they are hit resulting in a significant replacement programme and considerable costs due to roadworks and subsequent congestion. Indeed, on the M25 alone steel barrier repair and replacement has cost over £6 million since September 2001. Furthermore, even if they have not been hit steel barriers are only built to last 15-20 years before replacement. Concrete barriers are built to last a minimum of 50 years.

Steel barriers and wire fences, like their predecessors the rose bushes and thorn tree that were introduced on the first motorways in the 1960s, are no longer adequate to meet the demands placed upon them. This has been realised throughout Continental Europe where steel barriers are being replaced by concrete.

Nowhere are the inadequacies of Britain's transport infrastructure more evident than with the railways. Having once led the world, the rail network is now in crisis. For over 150 years the trains have run on ballasted track. However, this track belongs to another age. Britain's rail network needs to be brought into the 21st century.

Forty years ago, the Japanese had the long-term vision to replace their ballast system with concrete slab track. Forty years on and the impressive safety and punctuality records plus minimum maintenance makes the Japanese rail system the envy of the Britain's beleaguered train operators and passengers. The use of concrete slab track in Japan has maximised the operating efficiency of the rail network by eliminating unplanned maintenance. It also provides significant whole life cost savings. Although the initial outlay is higher, the resultant minimal maintenance and disruption means that this extra cost is recouped within 6-10 years.

Continental Europe is replacing ballast

with slab track. However, in the UK slab track has been installed only for the Channel Tunnel and a few isolated lengths. The rest of the UK has to make do and mend.

The proof of concrete's long-term performance and low maintenance is clearly evident at Britain's airports. Faced with 24 hour operations, airports cannot afford to have aprons or runways out of action for unplanned maintenance. For this reason, together with lower whole life costs compared to other pavement construction methods, airports invest in concrete. First trialled at Stansted Airport in the mid-1990s, the favoured method of construction is slipform paving. This enables aprons and taxiways to be laid quickly and economically.

Airport operators and the private

companies constructing and operating privately financed road schemes have demonstrated the vision to invest in a transport solution that has a guaranteed long-term performance of 40 plus years and delivers low levels of maintenance. This long-term vision is evident with governments throughout the modern world with the exception of the UK. Here, the lack of long-term vision means we have a transport infrastructure that increasingly looks more Third-world .

A CD-rom "Keeping Britain Moving" outlining long-term solutions for Britain's transport infrastructure is attached to the back cover and available from Britpave, Century House, Telford Avenue, Crowthorne, Berkshire RG45 6YS, tel: 01344 725731, www.britpave.org.uk



Concrete slabtrack would dramatically reduce rail maintenance.



Airports know the value of concrete for round-the-clock operations