RailSys – timetable testing MetroWest

We need to make sure that MetroWest’s plans for new train services will work. The new services will have to fit in with existing local, inter-regional, CrossCountry and freight train services as well as the new IEP electric trains and additional freight services.

RailSys is a standard rail industry software package that models different combinations of train services. For MetroWest it is particularly useful in demonstrating whether additional train services can be added to the network. Equally, if there are problems, the results can be used to identify and test what additional infrastructure is required to overcome them; for example, new train passing loops or platforms. However, RailSys does not provide the complete picture, because we still need to forecast passenger demand on new or modified services.

The advantage of RailSys is that you can try different options. If one service doesn’t work very well alternatives can be tested, thus gradually building towards a timetable that works. For MetroWest this has the added advantage that we can test Phase 1 and Phase 2 proposals at an early stage including whether a spur or a loop service for the Henbury Line works best at an operational level.

As part of the West of England Rail Study (February 2013), Halcrow used RailSys to test MetroWest Phase 1. Results demonstrated it was just possible to run half hourly services to Severn Beach, Portishead, Oldfield Park and Keynsham, but timings were very tight. In the absence of detailed designs for the four tracking of Filton Bank and remodelling of Bristol East Junction, assumptions had to be made. With more detail now available, Network Rail is using RailSys to refine the results and come up with a workable timetable for MetroWest Phase 1.

The latest RailSys work uses the December 2012 timetable, the current rail network plus planned enhancements:

- Filton Bank four tracking
- Bristol Parkway station fourth platform
- Bristol Temple Meads station Digby Wyatt shed (platforms 1 and 0) used by new IEP electric train services.
- Bristol East Junction remodelling
- Turnback (so trains can reverse back towards Bristol) in the Bathampton area.
• New IEP timetable.
• Future freight services.

Options for linked and shuttle train services are being tested with the overall aim still to provide half hourly services. Initial results are expected in September 2013. These will then feed into the GRIP Stage 1-2 work and the development of the Business Case for Phase 1. The draft Business Case will be published in Spring 2014. We will test the implications of Phase 1 on Phase 2. Work on Phase 2 itself follows that for Phase 1.

We want the most efficient and cost effective timetable for MetroWest. Making the best use of trains will minimise the cost of running new services. As local authority revenue support is likely to be required in the early years of operation this is a key issue.

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