

## **SOUTH GLOUCESTERSHIRE CORE STRATEGY EXAMINATION IN PUBLIC**

### **POLICY CS7: NOTE FOR INSPECTOR ON DEMAND FOR BUS RAPID TRANSIT SYSTEMS**

There is a growing body of evidence on the benefits of Bus Rapid Transit (BRT) systems, both globally and specifically in the UK. This note provides a brief summary of the evidence to demonstrate the high levels of patronage that can be delivered through a well-designed system that addresses the needs of passengers. This provides evidence to demonstrate that the BRT network proposed in the West of England (including the North Fringe and Emersons Green areas of South Gloucestershire) will deliver a step-change in public transport quality, resulting in a significant shift from the car.

It has previously been concluded that light rail and bus services with similar levels of service attributes have the same ridership attraction<sup>1</sup>. This is evident in the case of the Nantes, where three light rail lines are already in operation but the proposal for a 4<sup>th</sup> light rail line was expensive and had a weak financial case. An alternative bus-based proposal was developed, with very similar attributes to the LRT proposal, with dedicated stops and running for most of the route, park & ride and tram-like bus vehicles operating fast and frequent services. The busway opened in 2006 and has proved highly successful, with peak headways of 3.5 minutes and off-peak headways of 6 minutes. Six months after opening the busway was carrying 22,500 passengers per day. Monitoring of the busway indicated that it delivered the same level of ridership attraction and mode shift (25% mode shift from car) as the three LRT corridors in the city.

The first substantive BRT system in the UK was the Crawley Fastway, the first phase of which opened in 2003. The scheme has proved highly successful, with patronage 40% above forecast, leading to services operating 24 hours/day, seven days per week. The Kent Fastrack followed, with the first phase in 2006 and a second phase in 2007. Again, this has been highly successful, with patronage 50% higher than forecast. A survey of users six months after opening indicated that 19% would previously have made their journey by car and 26% had the use of a car but chose to use Fastrack. This demonstrates that high quality public transport has the potential to attract car users.

The 'ftmetro' scheme in Swansea opened in 2009 and the Cambridgeshire Busway in 2011. The Transport Assessment for the Cambridgeshire Busway forecast that the busway would carry 3.5 million trips per annum three years after opening. It forecast that patronage would build during the three-year period, with 50% (1.75m) in Year 1 and 75% (2.625m) in Year 2. Actual patronage during the first 8 months after opening was 1.65m, with 2.5m expected to be made in Year 1, 40% higher than forecast. The 'Eclipse' busway in South Hampshire opened in April 2012: again patronage is higher than forecast, with a 23% increase in bus use in the Gosport-Fareham corridor and a 71% increase in bus use on the routes replaced by the new services.

These examples demonstrate that Bus Rapid Transit has the potential to deliver large increases in public transport use in a wide range of contexts in UK towns and cities. These systems are all characterised by frequent services, high levels of priority and service punctuality, high quality rapid transit stops (including real-time information) and modern vehicles with distinctive branding. The North Fringe Hengrove Package and wider BRT network in the West of England will have all these characteristics and there therefore has clear potential to deliver a significant shift in travel behaviour.

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<sup>1</sup> Comparing Ridership Attraction, Ben-Akiva and Morikawa, Transport Policy 9, p107-116, 2002