Cambridgeshire Guided Busway
What the public think

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The Busway – where is it?
The Busway – background - 1

• The A14...
• The economic role of the route
• Access to Ports - Felixstowe
• Access to Cambridge – fastest growing economy in the UK
• Employment/housing imbalance
• A14 capacity and standard
• Congestion and unreliability...
• CHUMMS 2001 recommends Busway as part of package for A14 corridor
• Busway seen as unlocking residential development at Northstowe, Cambridge Northern Fringe, Addenbrooke’s
• Railway alignment Cambridge – St Ives paralleling A14 corridor
• Passenger services ceased 1970; freight 1991
• DfT granted funding 2003 subject to outcome Public Inquiry
• Public Inquiry 2004
• Construction - contractual dispute BAM Nuttall / CCC delays opening to 2011
The Busway
Passenger Facilities
Accessible stops
Ticketing and Information
Real Time Passenger Information
The Vehicles
Why conduct research?
Why do we care?

Is the bus always the mode of last resort?

- Bus-dependent market has been shrinking since the 1950s
- Limited results from other BRT or bus upgrade schemes
- Are the sceptics right?

- Busway - an opportunity to understand user response
- DfT not interested...

- How do our forecasts stand up to scrutiny?
Forecast patronage

- 3.5m passengers per year
- Three years to reach forecast
  - Year 1 - 50% - 1.75m
  - Year 2 - 75% - 2.625m
  - Year 3 - 100% - 3.5m
Actual patronage

- 2.5m passengers in first year
- 43% above forecast
- August 2012 - 243,450 trips
- October 2012 - 280,200 trips
Morning peak departures from St Ives

- Before: 4
- Aug-11: 8
- Sep-11: 10
- Oct-11: 12
- Jul-12: 14
- Sep-12: 16

Legend:
- Busway
- On road
Research Objectives

◆ Who?
◆ Why?
◆ How often?
◆ Reality v Forecast
◆ Busway Improvements
◆ Local and National lessons

◆ Lack of interest from DfT
◆ Cambridgeshire and Atkins joint study.
Approach to research

- Form of survey
- Locations
- Sample size
- Analytical approach
Form of survey

- Interviews of Busway service users
  - Journey details -
    - Where, why, how often
  - Car availability
  - Impact of the Busway – change in travel
  - Demographic data
  - Satisfaction and general comments
Survey locations
Sample and Analysis

◆ 800+ interviews
  ▪ To ensure statistical confidence levels
◆ Boarding and alighting counts
◆ Estimates of bus occupancy
◆ Demographic analysis of Busway catchment
Research results

- Who is using the Busway?
- Reasons for travel
- Car availability
- Busway vs. on-street stops
- Busway impacts
Who is using the Busway? -1

- 58/42% female/male
- 83% working age (16-64)
- 51% from £20k-£50k income group
- 80% from car available households
Who is using the Busway? -2

◆ Distance to home stop
  ▪ 60% within 1km
  ▪ 10% more than 5km

◆ Frequency of Busway use
  ▪ 44% daily
  ▪ 22% 2-3 times/week
Distance from Home to Stop/Halt

- Busway halt:
  - 5km+: 11%
  - 2km-5km: 10%
  - 1km-2km: 24%
  - 500m-1km: 9%
  - Up to 100m: 4%

- Bus stop:
  - 5km+: 32%
  - 2km-5km: 22%
  - 1km-2km: 7%
  - 500m-1km: 11%
  - Up to 100m: 5%

- P&R:
  - 5km+: 18%
  - 2km-5km: 25%
  - 1km-2km: 16%
  - 500m-1km: 22%
  - Up to 100m: 5%

- All respondents:
  - 5km+: 10%
  - 2km-5km: 14%
  - 1km-2km: 36%
  - 500m-1km: 15%
  - Up to 100m: 14%
Frequency of Use by Income

Figure 6. Estimated frequency of annual trips of Cambridgeshire Busway users.
Reasons for travel?

- No-one uses the bus to go to work any more…
  - 40% commuting
  - 20% education
  - 19% shopping
  - 6% healthcare

- No one who has to pay ever uses the bus…
  - 20% concessionary passes
  - 80% paid a fare
# Journey purpose comparison

<table>
<thead>
<tr>
<th>Journey purpose</th>
<th>Busway services all stops</th>
<th>Busway stops only</th>
<th>National Travel Survey bus</th>
<th>National Travel Survey rail</th>
<th>London bus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commuting</td>
<td>40%</td>
<td>47%</td>
<td>21%</td>
<td>44%</td>
<td>49%</td>
</tr>
<tr>
<td>Education</td>
<td>20%</td>
<td>23%</td>
<td>18%</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>Shopping</td>
<td>19%</td>
<td>10%</td>
<td>26%</td>
<td>7%</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>21%</td>
<td>20%</td>
<td>35%</td>
<td>42%</td>
<td>25%</td>
</tr>
</tbody>
</table>
Car availability

- 48% had a car available as a driver
- 14% had a lift available

- Bus stops – 38% and 11%
- Busway halts – 54% and 17%
Busway vs. on-street stops

- Greater proportion of higher incomes
- Greater proportion of ‘commuters’
- Longer distances to stop
- Greater access by car
- Higher car availability
Busway impacts - journey

◆ 40% had changed journey since the Busway opened
◆ Of the above, 33% for education, 30% for work
◆ ...but only 31% influenced by Busway
◆ Most influence on shopping (69%) and work (30%) trips
Busway impacts - mode

- 75% previously used bus
- 24% changed from car as driver
- 13% changed from car as passenger
  - note that more than one mode can be reported

- More than 70% of previous car users had free parking at their destination
Household Income by Previous Mode

- **£100,000+**: 11 respondents, 45% use bus, 18% use car (driver), 27% use car (car sharing/lift), 15% use other.
- **£50,000-79,999**: 79 respondents, 39% use bus, 37% use car (driver), 15% use car (car sharing/lift), 8% use other.
- **£30,000-49,999**: 131 respondents, 63% use bus, 24% use car (driver), 8% use car (car sharing/lift), 9% use other.
- **£15,000 - 29,999**: 89 respondents, 74% use bus, 11% use car (driver), 9% use car (car sharing/lift), 6% use other.
- **Under £15,000**: 59 respondents, 68% use bus, 22% use car (driver), 7% use car (car sharing/lift), 9% use other.
Attitudes to the Busway

- Busway service is comfortable: 91%
- The Service frequency suits my travel needs: 90%
- The experience is pleasant because the bus doesn’t stop very often: 85%
- I find the Real Time Information useful: 83%
- The Busway halts/stops are pleasant places to wait: 81%
- The arrival time at my destination is more reliable than using a car: 78%
Attitudes to the Busway

- I like having the choice of Stagecoach or Whippet 74%
- The Busway is quicker than using a car 74%
- The ability to drive and park my car at The Busway is useful to me 64%
- The ability to cycle/be dropped off at The Busway is useful to me 63%
- The availability of free WiFi on the bus is useful to me 60%
- I appreciate the ability to productively use my time on the bus 60%
- Car parking charges encourage me to use the Busway 59%
Local conclusions

“I always knew it would be a success!”
People are using the Busway as we thought they would
Increased access to jobs and education
Supporting growth and development
Need to keep improving and expanding services
You can’t please everyone!

“Guided Busway usage hopelessly over estimated”
Tim Phillips, CastIron 24/5/05 (Pro-rail group)

“There is serious overcrowding on peak-time services”
Tim Phillips, CastIron, Cambridge News Saturday 29/9/12
Continuous Improvement

July 2012

- Services increased
  - 7-8 minute frequency

- Routes extended
  - Eight destinations
Coming up…

2013
◆ Southern Fringe developments
2014
◆ Northstowe new town
2015
◆ Cambridge Science Park Interchange
National conclusions

- Immediacy of user response
- High level of ‘car available’ trips
- High level of users with free parking
- Rail-like demographic – esp. on Busway
- Importance of quality features
- Influence of speed & reliability
Lessons for forecasting

- Adequacy of incremental approach?
- Use of rail-like parameters
- Representation of quality features
- Valuation of reliability
- Relevance of free parking?
- ‘Ramp-up’ period?
Lessons for scheme development

◆ Systematic approach
  ◆ Address all aspects of the system
◆ Maximise quality
  ◆ Comfort and convenience
◆ Deliver speed and reliability
◆ Ensure ease of access
  ◆ By appropriate modes
The Busway services are:

- Fast
- Frequent
- Reliable
- And Popular
Cambridgeshire Guided Busway
What the public think

Discussion