Hounslow

Agenda Item No.
Reference No.

Better Local Government

CHISWICK AREA COMMITTEE (MONITORING)
12 NOVEMBER 2003

A4 CORRIDOR – MONORAIL

Report by: Assistant Chief Executive, Corporate Policy & Regeneration

SUMMARY

This report provides information on a proposal for a Monorail on the A4 Corridor, currently under development by a private consortium of developers and engineers, with the cooperation of the Council.

1.0 RECOMMENDATION

That the Committee:

1.1 Notes the current progress on the development of a proposal for an A4 monorail service.

2.0 BACKGROUND: LBH LIGHT RAPID TRANSIT (LRT) STUDY 2001/2

2.1 In 2001/2 the Borough undertook investigations into light rapid transit (LRT) within West London. This was in response to increasing pressure being placed on transport infrastructure in the area from new developments, particularly in the Great West Road and Heathrow locations. An LRT scheme would potentially encourage continued economic growth and regeneration whilst also supporting the Mayor's Transport Strategy priorities of reducing congestion and increasing public transport capacity.

2.2 Ove Arup & Partners ("Arup") were appointed by LB Hounslow in November 2001 to undertake a preliminary assessment or Scoping Study of options for LRT provision in the borough and adjacent areas.

2.3 The preliminary assessment encompassed: -

- A literature review
- An initial assessment of likely demand
- An outline engineering feasibility and route survey
- A preliminary assessment of the economic and financial case for construction and operation

2.4 Two routes were evaluated in Arup's report completed in June 2002.

- While no insurmountable engineering problems were identified, there would be a requirement to take road space through the majority of each route.

2.5 The main findings of the study are summarised below:

Route	**A4 / A315 route Heathrow to Hammersmith**	**A312 route Heathrow to Kingston**
Route length	16.4 kms	14.3 kms
Average speed	25 km/hr	20km/hr
LRT vehicles per hour peak/ off peak	12 6	12 6
Estimated capital cost (£ million)	278-292	208-221
Operating costs (£ million per annum)	2.6-5.2	1.5-4.0
Revenue (£ million per annum)	3.6	1.9
Net Operating Profit/loss (£ million per annum)	1.6 loss – 1.0 profit	2.1 loss – 0.4 profit
Approximate benefit: cost ratio	0.75:1	0.56:1

2.6 On the basis of the low benefit:cost ratio, an initial approach to Transport for London for support for the proposal was declined.

2.7 Transport for London is currently developing detailed plans for the West London Transit scheme, an LRT service linking Uxbridge, Ealing and Shepherd's Bush. This route has a much higher benefit:cost ratio (up to 3.5:1) than the A4 scheme, partly due to the considerably higher level of current bus patronage along that route. However, this project is meeting significant local resistance, as detailed planning is now establishing the need to restrict or prohibit general traffic at some key points of this route – an issue apparently not made clear in initial surveys that established strong community support for the project.

2.8 Further detailed analysis may result in an increased benefit:cost ratio for the A4 route. The economic analysis conducted at the time did not take into account additional patronage from Heathrow Terminal 5 and from new developments along the Golden Mile. Furthermore, the revenue figures were based on bus fare levels, when arguably an appropriate fare would be somewhere between bus and tube levels for a faster and more attractive service than the current H91 bus.

3.0 AMBERSHAM MONORAIL STUDY 2003

3.1 Towards the end of 2002, the Brentford Football Club applied for planning permission to close their club premises at Griffin Park and develop the land for housing and open space. LB Hounslow resolved to grant this application provided a new stadium site could be secured locally. The Brentford Football Club Supporters Group ("Bees United") identified a suitable site to construct a new stadium plus additional developments, on SRA land at Lionel Road, Brentford. Bees United, in conjunction with engineering and property development companies Millhouse and Ambersham Group, created a plan to serve the new stadium site by monorail, linked to park-and-ride facilities at Western International Market.

3.2 In early discussions with the Council, Ambersham Group was briefed on the A4 LRT study (as described above) and, following a very preliminary survey of route options, stated that a monorail could possibly operate the Heathrow-Hammersmith corridor via the new stadium site, at lower cost than a tram service. Ambersham was of the view that a monorail service could possibly be operated on an entirely commercial basis (subject to more detailed analysis), part financed by "planning gains" from new proposed development clustered around monorail stations.

3.3 Ambersham is currently promoting a number of transport schemes, including an 11-kilometre rapid transit link in Portsmouth with the co-operation of the local authority, utilising the Intamin monorail manufactured in Switzerland.

3.4 Earlier this year, Ambersham embarked on a study to examine the feasibility of a privately funded monorail scheme on the A4 corridor. The cost of the £100,000 study is being met entirely by Ambersham as part of a programme to develop sustainable private sector transport systems in the UK. Hounslow

Council is not financially involved in the study but has assisted by providing support in terms of information and initial liaison with other parties including BAA and the London Boroughs of Hillingdon and Hammersmith & Fulham.

3.5 The study has now been completed and the Council expects to receive a copy of the study report in early November. Ambersham has indicated that the results are positive, in terms of the potential cost-effectiveness of a route between Hammersmith and Hatton Cross, however the balance of the route through to Heathrow may be less viable.

3.6 At this stage, it would appear that the favoured route follows the A4 from Hammersmith to Henlys Roundabout via the Hogarth and Chiswick Roundabouts and the "Golden Mile" through Brentford, then via the A30 to Hatton Cross. Access to Heathrow, if achievable, would possibly be via the airport's Southern Perimeter Road. The total route length from Hammersmith to Heathrow Terminal Five would be approximately 21 kilometres, with stops at one kilometre intervals approximately.

3.7 Ambersham hopes to release the report's main conclusions including route details and proposed station locations in mid November, so it may be possible to present some material at the Committee meeting.

4.0 DISCUSSION

4.1 Monorails have the following potential advantages over surface based light rapid transit (i.e. trams) on the A4 corridor.

- A monorail is likely to have a lower construction cost due to fewer requirements to alter existing street infrastructure and statutory utilities.
- Modular construction would mean faster construction time.
- Monorail track pylons can be situated in the A4's central reservations, with minimal or no loss of road space.
- Grade separation at junctions means that there is no conflict with cross traffic.
- Higher speeds are possible due to no requirement to give way to other traffic at junctions.
- Additional patronage can possibly be attracted due to the unique nature of the mode.
- There is a potential for grade-separated above-road interchange developments with ancillary uses.

4.2 On the other hand, there are a number of factors in favour of "traditional" LRT:

- Trams are popular in attracting new public transport users and are held in high regard by the public. Experience in the UK and elsewhere in Europe supports this assertion.

- Modern LRT systems represent a progression from and refinement of well proven tram technology, whereas monorails are less well proven, with most currently operating on short routes at major airports, amusement parks etc, although there are several larger scale systems in general operation overseas.

- The visual intrusion of trams on the urban landscape is very slight, whereas monorail tracks can be unsightly and the elevated nature of monorail operations suggests some loss of privacy to local residents.

- The provision of tram stops is relatively simple, while elevated monorail stations are more costly and would be less frequent, with significant access and aesthetic drawbacks unless fully integrated into new commercial or residential developments.

4.3 Notwithstanding the above reservations, a monorail operating along the A4 corridor is likely to attract considerably more patronage than the current H91 bus service. While a tram would directly replace the current H91 bus service with a higher-frequency, faster, more reliable and more attractive mode, a monorail would be positioned as an even faster "premium" service that is likely to attract more commuters and business travellers from their cars.

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Background Papers:	**This report has been or is due to be considered by:**
"A4 Fast Track" Light Rapid Transit (LRT) Strategy, Briefing Note to the Executive, April 2003. Ove Arup & Partners International Ltd, Rapid Transit Scoping Study, June 2002	Chiswick Area Committee
This report is relevant to the following wards/areas: All	