

**PROPOSAL FOR LEEDS BUS RAPID TRANSIT**

**For Decision**

Members are asked to support proposals for a Leeds Bus Rapid Transit scheme to replace earlier proposals for light rail in Leeds, and to endorse the first phase of funding (£150m) within the Regional Funding Allocation to 2015/16.

**Background**

1. At its January 2007 meeting the Board received a presentation on the Leeds City Region Transport Vision. Shortly before the April meeting of the Board, Metro and Leeds City Council submitted a copy of the Initial Business Case for a bus-based alternative to earlier proposals for a light rail system in Leeds – the Supertram. The Board undertook to provide a response to Metro at this June meeting.

**The Leeds Bus Rapid Transit Proposal**

2. In November 2005, the Department for Transport confirmed that a proposal by Metro and Leeds City Council for a three-line Supertram network in Leeds would not be supported. In announcing the cancellation of the Supertram scheme, the then Secretary of State for Transport encouraged the scheme's promoters to pursue a "showcase bus system that could lead the way for other cities".
3. The project sponsors have now developed a bus-based alternative, which will achieve most of the benefits of the Supertram, but at a significantly lower cost. The scheme's sponsors require feedback from DfT on the proposals to support the detailed development of the project. Before DfT will provide this feedback, it is necessary for the proposal to secure support from the Regional Transport Board.
4. The overall aim of the scheme is to provide a high-quality public transport system operating initially on three corridors previously identified for the Leeds Supertram, but with services focused on the East of the city. This would provide a three-line network with a city centre loop and a proposed spur into the Aire Valley. Providing a step-change in the quality of service should encourage travellers who currently use cars to start using public transport.
5. The preferred vehicle for this system is a bus-tram powered by an overhead electricity supply and thus capable of running in electric mode for most of the time. Auxiliary diesel power enables the vehicles to be diverted from the

electrified routes when necessary. The electric vehicles will offer reduced levels of local air pollution, noise and vibration.

6. The system does not require fixed tracks but 38% of the route will have guideways or bus lanes and passenger facilities will include real-time information, ticket machines and CCTV.

### **Assessment of the scheme**

8. In order to inform the Board's consideration of the request for support from Metro, the Initial Business Case has been assessed by JMP Consultants using the methodology developed for the Interim Transport Board in 2005/6 but refreshed as agreed at the Board's April meeting.
9. Because the work on the methodology itself and then its application to the Leeds BRT have had to be carried out within a limited timescale, it has not been possible to present the final outcome of the assessment in this paper. However, it is already clear that the scheme meets the DfT's requirements in respect of Benefit/Cost Ratio and it also performs well when assessed against policy criteria. An additional paper summarising the assessment will be circulated to members in advance of the meeting and a verbal presentation will be given at the meeting.

### **Options for the Board**

10. The Government's decision letter on the transport element of the Regional Funding Allocation in July 2006 included a Leeds Bus Rapid Transit scheme in an indicative list of schemes that should be funded from the Regional Funding Allocation for 2009/10 - 2015/16, subject to satisfactory proposals coming forward. It should be noted that the Secretary of State's letter made a similar provision for a scheme in Sheffield to provide an alternative to the Supertram extensions (which DfT had not accepted into the programme). It is understood that a request from Sheffield for support for a specific scheme will be brought to the Board in September 2007.
11. The Board could support utilising the majority of the remaining headroom in the Regional Funding Allocation to meet the full cost of the Base Case for the Leeds Bus Rapid Transit Scheme, but this approach would effectively preclude including any support for Sheffield for an alternative to their Supertram proposals.
12. Metro and Leeds City Council are seeking a commitment in principle from the Board to the whole scheme, but their key requirement is support from the Board for sufficient funding to enable a significant start to be made on the scheme, with the remainder accommodated through phasing of the expenditure beyond the current Regional Funding Allocation. If this approach were taken it would enable the Board to consider additional proposals such as support for public transport enhancements in Sheffield as a potential alternative to the proposed South Yorkshire Supertram extensions. Metro and

Leeds City Council are continuing to pursue additional options for funding the scheme including a bid for a Productivity-TIF scheme.

## Conclusion

- 13.** In conclusion, it is recommended that the Board supports proposals for the Leeds Bus Rapid Transit scheme, and endorses allocating £150m to the Leeds Bus Rapid Transit scheme in 2010-2012 from the current Regional Funding Allocation. Discussions will continue with Metro and Leeds about a method of phasing the remaining expenditure as part of the overall review of RFA expected in 2008. This would enable Metro to commit resources to developing the full Business Case for the scheme.

## Source Papers

- 14.** Past reports and documents on this subject are available as follows:

Report	Location
Letter from Douglas Alexander to Cllr Peter Box on Regional Funding Allocations - 6 July 2006.	Available from:
Regional Transport Board Meeting 20 April 2007: Regional Funding Priorities for Transport - Considering New and Emerging Schemes in the Short Term	Nicola Plumstead Yorkshire and Humber Assembly 18 King Street Wakefield WF1 2SQ Tel: 01924 331 560 E-mail: <a href="mailto:Nicola.Plumstead@yhassembly.gov.uk">Nicola.Plumstead@yhassembly.gov.uk</a>

Michael Padgett, Transport Advisor  
8 June 2007

## Leeds Bus Rapid Transit (BRT) – Assessment Summary Sheet

This Assessment Summary sheet has been prepared by JMP consultants for the Assembly and accompanies their score sheet summary assessment for the Leeds Bus Rapid Transit proposal (attached as Agenda Item 7b, Annex B). It presents their summary assessment and score of the proposal.

### Scheme Description

The overarching aim of the scheme is to provide a high quality public transport system (bus tram) operating initially within the three broad corridors previously identified for Leeds Supertram. The corridors have a connecting loop in the city and can be summarised as:

- North route to Bodington Park and Ride,
- East route to Seacroft Centre,
- South route to Stourton park and ride
- City centre loop

The bus tram provides a level of flexibility similar to that of a conventional bus but in terms of quality is nearer to that of a tram. The bus tram is powered by an overhead electricity supply and would operate in electric mode for the vast majority of the time. The vehicles also have the capability to switch to an auxiliary diesel engine in order to divert from the overhead wires when necessary.

The network will have an average stop distance of approximately 800m between stops. The stops will remain separate from other bus stops to ensure “bus on bus” delay does not occur for BRT services.

Stops will be high quality including state of the art shelters, real time information, ticket machines, lighting and CCTV, while each stop will have a bus stop clearway in force 24 hours a day, 7 days a week.

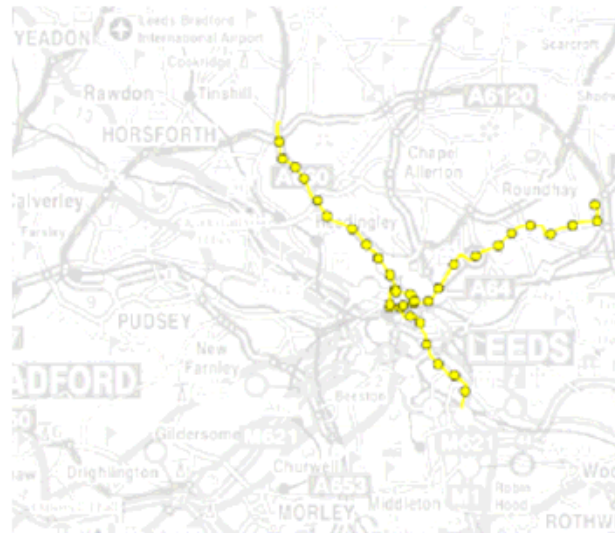
38% of the overall network will use guideways or bus lanes.

Some key operation details of the system are:

	BRT frequency	Average speed at peak times
Southern Route	6 per hour	20 km/h
Northern Route	10 per hour	16km/h
Eastern Route	10 per hour	20km/h

Operational journey times are as follows:

	Comparative journey times		
	BRT	Bus	Car
Southern Route	10.1	10.7	15.3
Northern Route	11.6	16.1	11.4
Eastern Route	23.5	35.6	22.5



### **Context and Objectives**

The overarching aim of the scheme is to provide a high quality public transport system that provides a step change in the quality of travel which will improve conditions for existing bus users and attract new public transport users many of whom will have previously travelled by car.

The Leeds City Region Development Plan cites transport connectivity as one of the key economic inhibitors and improving connectivity to and within the city region is identified as the most significant priority. The Leeds City Region Transport Vision has been developed to address the strategic transport needs of the city region over 25 years, and to deliver this need for improved connectivity. The vision sets out the interventions required to support the expected economic growth in a sustainable way. This vision includes BRT as a key component to deliver future transport improvements.

### **Wider scheme objectives**

- To reduce levels of congestion in the corridors;
- To stimulate and maintain sustainable economic growth and regeneration;
- To improve the local environment through reduced levels of local air pollution, noise and vibration;
- To improve the wider environment through reduced levels of air pollution and reduction of Greenhouse Gas emissions.

### **Transport sub-objectives**

- To bring about a step change in the quality of public transport services along the corridors;

- To increase public transport use along the corridors and achieve modal shift from the car;
- To create a system with faster journey times than existing public transport services in the corridors and high levels of punctuality and reliability through increased segregation and bus priority;
- To improve the overall passenger experience of public transport in the corridors through measures such as improved information, better waiting environments and enhanced safety and security;
- To improve accessibility to, from and within the corridors and contribute towards reducing social exclusion;
- To integrate the new rapid transit system with the wider transport network.

### **Relationship with other Schemes**

A65 Kirkstall Road QBC (identified as a priority in the first round of RFA)  
Leeds City Region Transport Vision

### **Consequences of not delivering the scheme**

Congestion levels will rise, and the ability of the City Region to deliver its Transport Vision fully will be compromised with a consequent effect on the economy of the sub-region and potential damage to growth.

Investors and developers in the city who would be re-assured by the permanence of a fixed public transport system and given the confidence to invest are unlikely to do so.

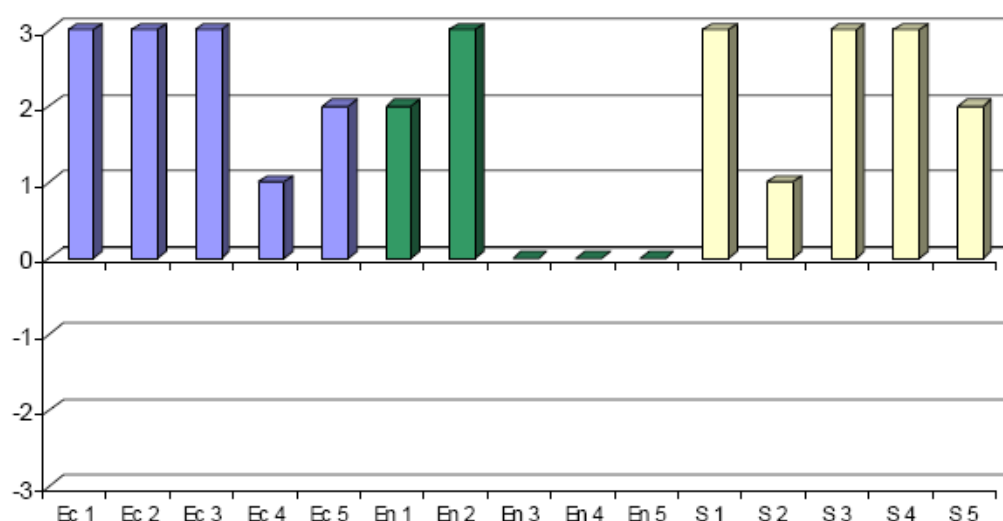
Quantified estimates of the economic consequences are outlined in the additional value for money information below.

Local environmental problems such as poor air quality will remain.

### **Evidence Reviewed**

Leeds Bus Rapid Transit Proposals, Initial Business Case (March 2007)

## Leeds BRT



Criteria	Score
EC 1: Key Spatial Priority Aims	3
EC 2: Knowledge base	3
EC 3: Growth potential/ competitiveness/ productivity	3
EC 4: National and International trade	1
EC 5: Regeneration of former industrial areas and brownfield site	2
EN 1: Local air quality	2
EN 2: Climate change	3
EN 3: Natural environment	0
EN 4: Environmental significance	0
EN 5: historical, cultural and archaeological value	0
S 1: Urban and rural renaissance	3
S 2: Health	1
S 3: Access to basic goods services and amenities	3
S 4: Economic inclusion	3
S 5: Crime and security	2

### Value for Money

BCR: 2.27 (30yr) 3.40 (60yr)

### Additional value for money information:

It is expected that significant wider economic benefits will be achieved through the delivery of the BRT proposal. The benefits that can be gained through increased GDP and agglomeration benefits are not quantifiable directly to the BRT scheme at this stage. But for example, work undertaken for the Leeds City Region Vision identified that non-delivery of the transport strategy for the city region, which includes BRT, would mean over 7,600 planned jobs in Leeds City would not be created over 25 years (out of an expected 38,000 – which equates to 20%), and a forecast reduction in GVA of close to £400 million. This does not account for other

wider benefits such as agglomeration, which the Vision estimates at over £10 million per year attributable to the full delivery of the city region's transport strategy (including BRT).

Monetised benefits of reduced carbon emissions would be achievable. For the maximum potential carbon saving under the current forecasts, the reduction in emissions from car use could be accounted without assuming any increase in emissions from increased bus and BRT mileage.

	Forecast reduction in emissions from cars	Maximum net increase to emissions from buses/BRT	Estimated minimum net impact
30 year PV	£1.4m	£1.3m	£0.1m
60 year PV	£2.3m	£1.9m	£0.4m

### **Affordability**

Total Scheme Cost: £217.790m in 2006 prices

Cost to Government: £217.790m in 2006 prices

Funding Profile:

- Year 1 - 17%
- Year 2 - 33%
- Year 3 - 33%
- Year 4 - 17%

Start year 2010 - 2011

On-going Operating/Maintenance Costs: £8.677m per year in 2006 prices

The treatment of contingency, risk and Optimism Bias at this stage is that contingencies have been specifically excluded and a quantified risk assessment has not been fully undertaken. Optimism Bias has therefore been applied at the full rate, as follows:

- 44% applied to standard or low-risk items – all except the non-standard / high-risk items listed below; and
- 66% applied to non-standard or high-risk items, namely vehicles and electrification, utilities, and enabling works for accommodating Overhead Line Equipment (OLE).

### **Deliverability**

- A quantified risk assessment has not been undertaken at present.
- The scheme will require a Transport and Works Act (TWA) order. This does bring a significant element of risk, as there are likely to be objections and the requirement for a Public Inquiry. The promoter however has significant experience of the TWA process having successfully acquired powers for Supertram under this legislation before.
- No compulsory purchase orders are cited in the initial business case, though

these will be covered through the TWA process.

- The proposal does not yet have planning permission.
- The scheme does not require conservation area consent.
- Third party consents, such as those from the Highways Agency for elements of the proposal are required, including the need for more land.
- The issue of competition on the proposal corridors from conventional buses is dependent upon the final form of any legislation arising from the new Transport Bill, and is therefore an unknown risk at this stage.

#### **Risk to cost**

- The scheme has not received any third party funding to date.

#### **Risk to stakeholder/public acceptance**

- There has been no public consultation to date because of the need (for promoter credibility) to have funding identified before the public involvement process can start. One of the key issues for waning support or apathy towards previous proposals for a mass transit system in Leeds was the lack of progress undermining public confidence and support.
- "Lower" technology, and therefore lower cost, bus based systems (as opposed to the preferred bus-tram) have significant delivery risks as they are unlikely to be regarded as acceptable alternatives to a more permanent system with local stakeholders, including businesses and the general public.

### **Delivery Programme**

<b>Date</b>	<b>Action</b>
Early - Mid 2007	DfT feedback on Initial Business Case submission, work towards inclusion in Regional Funding Advice
Through 2007	Data collection (Autumn), development of appraisal tools, public consultation
Late 2007 / Early 2008	Submission of Full Business Case, confirmation of prioritisation in RFA
Mid 2008	Subject to DfT approval submit Transport and Works Act
Mid-Late 2008	Transport and Works Act Inquiry
Mid-Late 2009	Outcome of Inquiry
2010	Appoint contractors, start construction
2010-2013	Phased scheme completion

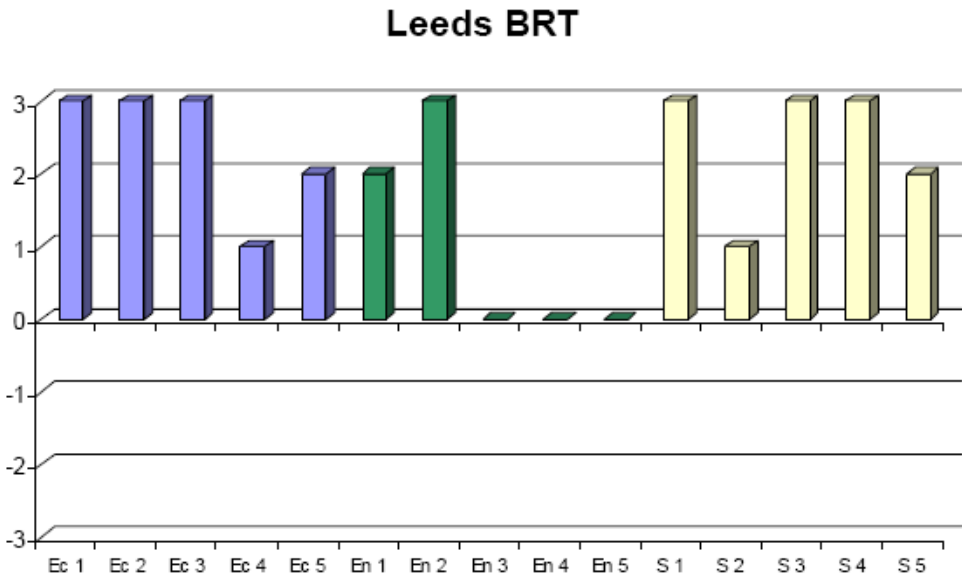


### Proposal for Leeds Bus Rapid Transit

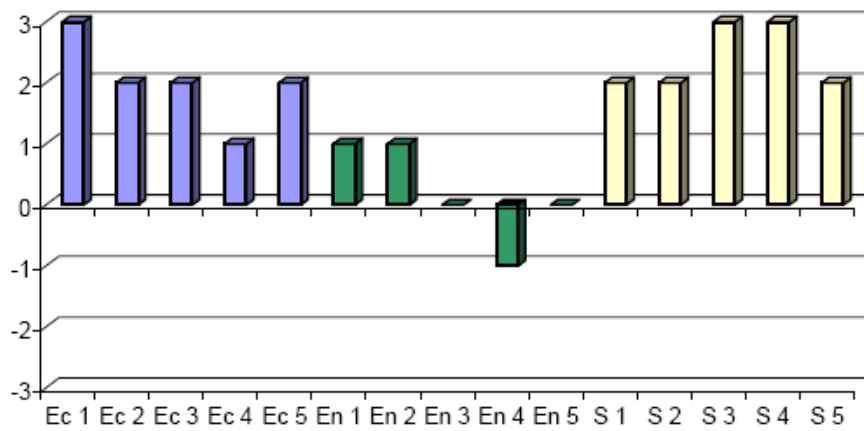
This note has been prepared by JMP consultants for the Assembly and accompanies their score sheet summary assessment for the Leeds BRT proposal (attached as Agenda Item 7b -Annex A).

### Leeds BRT

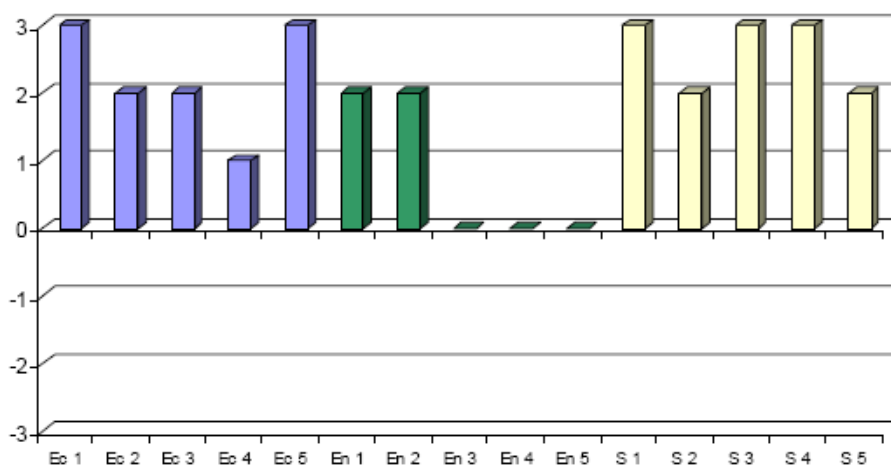
Firstly, with regard to the Leeds BRT proposal, the score sheet indicates that the scheme demonstrates a high degree of policy fit under the adopted prioritisation methodology. This is comparable with similar high quality public transport schemes accepted by the Board for inclusion in advice from the region as part of its submission to government during the first round of Regional Funding Allocations in early 2006, as demonstrated in the figures below. The figures show the policy scores for the current proposal in front of the Board, and for the accepted Leeds Kirkstall Road quality bus scheme, and the South Yorkshire Supertram extensions, which were included in advice from the region, but subsequently rejected by the Secretary of State.



### A65 Kirkstall Road QBC



### South Yorkshire Supertram Extension



The methodology looks at the policy fit alongside the value for money as expressed by the Benefit Cost Ratio as defined in Department for Transport guidance. In the case of the submitted scheme this is above 2, and represents high value for money. Significant wider economic, social and regeneration benefits are also expected to accrue from this proposal.

The methodology identifies that proposals that have good policy fit, and represent high value for money should be examined in terms of deliverability.

Whilst there are a number of significant risks, which are detailed in the score sheet summary, the alternative options that have been examined by the promoter, which are also likely to perform well in the policy fit and value for money assessment within the methodology, are unlikely to be deliverable. In assessing the scheme under the methodology (at the promoter meeting), the Assembly, through its consultants JMP, has identified that lower cost alternatives to the preferred bus-tram option are unlikely to meet with local stakeholder and public acceptability, and are not therefore considered to be deliverable solutions to the identified mass transit needs of the Leeds City Region.