



**LEEDS**  
CITY COUNCIL

AGENDA  
ITEM NO.:

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## NOT FOR PUBLICATION

Exempt/Confidential Under Access to Information Procedure Rules 10.4 ( 9)

**Annex 2 and 3 to this report are confidential and will be circulated at the meeting as they contain commercially sensitive information derived from current negotiations for a future contract.**

### JOINT REPORT OF THE DIRECTORS OF CORPORATE SERVICES AND DEVELOPMENT

#### REPORT TO EXECUTIVE BOARD

DATE : 8<sup>TH</sup> November 2004

#### SUBJECT : LEEDS SUPERTRAM: REVISED SUBMISSION TO THE DEPARTMENT FOR TRANSPORT

##### Electoral Wards Affected :

Ardley and Robin Hood, Middleton Park,  
City and Hunslet, Weetwood, Headingley,  
Hyde Park and Woodhouse, Crossgates and  
Whinmoor, Killingbeck and Seacroft,  
Roundhay, Gipton and Harehills,  
Burmantofts and Richmond Hill.

##### Specific Implications For :

Ethnic Minorities	<input type="checkbox"/>
Women	<input type="checkbox"/>
Disabled People	<input type="checkbox"/>

**Executive Board Decision**

**Eligible for Call In**

**Not eligible for Call In**   
(details contained in the report)

### 1.0 PURPOSE OF THE REPORT

- 1.1 To inform the Executive Board of the outcome of the Review of transport alternatives on the Supertram corridors.
- 1.2 To provide details of the proposed new submission to the Department of Transport.
- 1.3 To set out the issues for Leeds City Council arising from the Review and Submission.
- 1.4 To obtain approval of the Board to the revised tram submission and to the proposed next steps.
- 1.5 To give the reason why it was assessed as not being eligible for call in.

## **2.0 OUTCOME OF THE REVIEW**

- 2.1 A detailed summary of the Review and the proposed submission has been prepared by the joint Leeds City Council/Metro Project Team and is attached to this Report as Annex 1 (the joint report). This latter report is also being considered in parallel by WYPTA.
- 2.2 Three possible options have been assessed in accordance with the Department of Transport's Appraisal Guidance. These are:-
1. Reduced Tram (a truncated network with the Balm Road to Tingley section deleted from the original proposal) (See fig. 1 attached to this report)
  2. Bus Rapid Transit (a new concept bus that resembles the tram but runs on rubber tyres)
  3. Conventional Bus (existing high frequency bus routes with upgraded stops and access – Yorkshire Bus)
- (A fourth option, reduced tram with associated quality bus contracts (tram and QBC) in place) was also assessed as a sensitivity test).*
- 2.3 The option appraisal indicates that all options are consistent with national and local policies and would contribute to the solution of transport problems on the three corridors. However, the values detailed in the joint report (see para 2.8) indicate that the reduced tram represents the best option for addressing transport problems on these three corridors as it has a higher Net Present Value (NPV) and Benefit Cost Ratio (BCR) than the Bus Rapid Transit option and a much higher NPV than the bus option, although the BCR is lower. (for definitions of NPV and BCR see Appendix 1 of the joint report.
- 2.4 An Economic Impact Report (EIR) of the options has also been undertaken to supplement the revised Supertram submission. This report concludes that of all the options the reduced tram has the most positive impact followed by the Bus Rapid Transit and finally conventional bus. The positive impacts of the tram relative to the other options are highlighted in para 2.11 of the joint report and are summarised in Appendix 7 of that Report.
- 2.5 A copy of the full submission Report and the full Economic Impact Report will be available in the Members Library from the 4<sup>th</sup> of November. (This date is the earliest possible date that can be achieved for the availability of this submission due to the need to complete it to DfT requirements in a very tight timescale).

## **3.0 REDUCED TRAM PROPOSAL**

- 3.1 The need to reduce the costs of the scheme has required a review of the proposed network and the number of tram stops to be provided. The reduced network (which would form the basis of the proposed Best and Final Offer - BAFO process) involves termination of the South Line at the Stourton Park and Ride site, rather than serving Middleton and Tingley as originally envisaged. The removal of the stops at Shaw Lane (North Line), Ring Road (Seacroft) (East Line) and amalgamation of the two stops on Harehills Road (to a central site adjacent to the proposed community facility) is also proposed. The reduced, and original, networks are shown on Figure 1 to this report. The option to subsequently extend the Supertram to Tingley would be retained for future consideration and, in the interim, Metro are proposing to upgrade existing bus infrastructure in line with other bus enhancement programmes.

## **4.0 FUNDING POSITION**

- 4.1 On 4<sup>th</sup> April 2001, Executive Board approved the principles of the funding arrangements for the Supertram project. Details of these arrangements are given in Annex 2 (which due to its confidential nature will be tabled at the Board meeting). This Annex compares the current estimate of the cost of the scheme and how it is proposed to be funded with the arrangements agreed in 2001.
- 4.2 It is anticipated that the level of local funding will be comparable to that agreed in 2001 with central Government support accounting for a slightly higher proportion of the overall cost of the scheme.

## **5.0 RETAINED RISK**

- 5.1 In order to reduce the cost of the schemes submitted by bidders a review of risk has taken place including a Risk Assessment Study led by independent consultants. The bidders had priced some elements of risk transfer very highly and it was felt that by re-assessing and re-allocating some of these risks to the promoters of the scheme (Metro and Leeds City Council), significant cost reductions could be achieved.
- 5.2 This revised approach applies to the following elements of the scheme:-
- Diversion of Utilities
  - Business Rates
  - Wage Inflation
  - Insurance
  - Power
  - Programme
  - Revenue
- This approach is fully in accordance with the recent National Audit Office Report on Light Rail which recommended adequate risk management, particularly over the cost and necessity for utility diversions.
- 5.3 The cost implications for the Council and Metro taking on these additional risks are set out in Annex 3, (which due to its confidential nature will be tabled at the Board Meeting) and details of the changes to the risk profile are set out in paras 3.11 – 3.22 of the joint report (Annex 1).
- 5.4 Details are also given in Annex 1 (para 3.6 – 3.10) of the possible risks that the final scheme will not fully comply with the planning and highway requirements as currently agreed by the City Council. It is anticipated that this issue will be resolved by further negotiations at the BAFO stage.
- 5.5 This approach of risk sharing is not a method which has been used in the Procurement of light rail in the past and responsibility for the future risks will need to be discussed further with the Department for Transport. The detail of the risks will only be fully understood by the promoters during the BAFO stage, which will then be reported back for full consideration by Executive Board.

## **6.0 REQUIREMENTS ARISING FROM THE JULY 2004 WHITE PAPER**

- 6.1 The July 2004 Transport White Paper encourages local transport authorities to consider bolder measures to address traffic congestion, and in subsequent

discussion with the DfT it has been made clear that the Department will require a commitment to such measures as part of any major funding submission.

- 6.2 It is therefore proposed that the current submission includes wording which, whilst acknowledging local concerns, gives a commitment that Leeds City Council will carry out local studies to assess the contribution demand management can make to supporting the current submission and to reducing congestion in Leeds. The proposed wording is given in para 4.2 of the Joint Report.

## **7.0 STATUTORY POWERS TO IMPLEMENT THE SCHEME**

- 7.1 The principal issue is the expiry on 28<sup>th</sup> March 2006 of the land acquisition, and planning powers to implement the scheme. The proposed course of action to safeguard these powers is set out in paras 5.2 – 5.11 of the Joint Report.

## **8.0 PROPOSED NEXT STEPS**

- 8.1 It has been agreed with the Department for Transport that the revised submission will be lodged with the Secretary of State on 12<sup>th</sup> November. As a result of this requirement there is insufficient time to make the decision available for call-in. An urgent submission to and decision by the DfT is required because of the expiry of powers in March 2006 and the substantial level of work required should approval be given to take the scheme to Commercial Close in time to keep the powers alive.
- 8.2 It is proposed to hold a local launch of the revised submission on the morning of 15 November 2004.
- 8.3 It is proposed that the submission asks for DfT support for the reduced tram option and, as the next step, seek DfT funding for the BAFO process and works to retain powers. This would allow Commercial Close with a bidder, with Financial Close and mobilisation deferred until funding is available, perhaps in 2006/07 or 2007/08.

## **9.0 CONCLUSION**

- 9.1 A reduction in the scope of the scheme (omitting the branch to Tingley) together with a change in the risk profile such that Council and Metro assume more of the risks has made possible a resubmission case in line with the original cost estimates, but still achieving a better benefit to cost ratio compared to the alternatives assessed. The reduced tram scheme now proposed clearly raises a number of concerns and risks for the Council which are set out and evaluated in this report. It is considered that notwithstanding these issues, the regeneration benefits to the city, (confirmed by the findings of the Economic Impact Report) as well as the wider economic, transport capacity and environmental benefits fully justify a further submission to the Department for Transport. The submission also seeks support for the scheme with the next step being to go forward to the BAFO stage of the process which will allow a resolution of many of the current uncertainties.

## **10.0 STAFFING IMPLICATIONS**

- 10.1 The proposals if agreed by this Board and the PTA Board will in the short term involve the continued secondment of 2/3 LCC staff to the joint Project Team on a full time basis, as well as advice from other relevant LCC staff on specific issues as required. The majority of these staff costs are currently being funded by Metro from the LTP settlement. If DfT agreement is given to going forward to the BAFO stage

there will be a need for a significant increase in the number of staff seconded to the Joint Project Team. An allowance has been made for these costs in the current estimates for BAFO.

## **11.0 EQUAL OPPORTUNITIES IMPLICATIONS**

11.1 The proposed submission, if successful, will support the corporate priorities of integrated transport, better neighbourhoods, competing in the global economy and looking after the environment and will therefore help in delivering the benefits of a prosperous, vibrant and attractive city to all the people of Leeds.

## **12.0 RECOMMENDATIONS**

Members are asked to agree to:

- a) receive the results of the review of options for the three Supertram corridors and to endorse the reduced tram option as representing the best means of meeting the objectives of Leeds City Council and Metro.
- b) note the proposed approach to risk, and the potential implications for Metro and Leeds City Council, and to endorse further work on risk transfer and management during the Best and Final Offer process.
- c) approve the revised tram option for submission to the Department for Transport, with the request that the Department for Transport supports the scheme and, as the next step funds the costs of the Best and Final Offer process.
- d) recognise that it may be necessary to consider work to a Commercial close, but not Financial Close, as a way of progressing the project. This approach would require commitment to Financial Close once national funding was available
- e) request the Department for Transport to assist, with funding, the necessary steps to protect the CPO and other powers that are required as a Condition Precedent for Financial Close.
- f) note further work on demand management measures in parallel with the 'Best and Final Offer' process, and preparation of the LTP 2.



**LEEDS CITY COUNCIL  
WEST YORKSHIRE PASSENGER TRANSPORT AUTHORITY**

**LEEDS SUPERTRAM**

**1. BACKGROUND**

- 1.1 The Leeds Supertram scheme is supported by all five West Yorkshire District Councils and WYPTA as being the highest priority major scheme in the first West Yorkshire Local Transport Plan in view of its importance to address transport issues on three key corridors in Leeds and supporting Leeds as the economic driver for West Yorkshire and the Yorkshire and Humberside Region.
- 1.2 Expenditure of £355 million (Net Present Value 2001) was approved by the Government in March 2001. A project team was established and competitive bids were invited to design, build, finance, operate and maintain the system. The procurement model was dictated by the (then) Department for Environment, Transport and the Regions (DETR) and involved significant risk transfer to the successful consortium. The public sector funding contributions would be a combination of milestone payments (as the system was built) and thereafter availability payments for the 27-year operation period. It was a DETR requirement that 25% of the public sector funding came from local sources and a mechanism for achieving this was agreed. The local contribution was to include proceeds from land sales (e.g. Stourton) as well as the use of Local Transport Plan funding.
- 1.3 All three tram schemes (Leeds, Manchester, and South Hampshire) approved by DETR in 2001 experienced problems of cost increases, in part as a result of the private sector attaching a high price to the transfer of risks over which they felt they had little control (e.g. the impact of future local/national government policy affecting patronage, energy costs, driver wages etc).
- 1.4 Metro and Leeds City Council subsequently held lengthy discussions with the Department for Transport regarding how to address cost issues. These discussions led to a meeting with Alistair Darling, Secretary of State for Transport, in January 2004. The Secretary of State stated that the scheme was unaffordable at a cost of over £500 million (Net Present Value) and that Metro and Leeds City Council should review transport options for these corridors. He also stated that in addition to an affordability criteria (the £355 million originally approved), any revised proposal would need to demonstrate value for money by achieving a Benefit : Cost ratio of around 1.5:1.

- 1.5 There have been two other key national events in 2004, as set out below:
- The National Audit Office Report on Light Rail Schemes in England, published in April 2004.
  - The Transport White Paper in July 2004.
- 1.6 When presenting the Transport White Paper the Secretary of State for Transport (Alistair Darling) also announced that the light rail schemes in Leeds, Manchester and South Hampshire were considered 'not affordable' at the increased costs that resulted from tendering. The funding approvals from 2001 for these three schemes were revoked.
- 1.7 The key messages from the NAO report and Transport White Paper are:
- The Department for Transport and Promoters need to work together to find better ways of developing and implementing light rail schemes, reflecting the National Audit Office report.
  - Promoters need to seriously consider complementary demand management measures and to demonstrate a commitment to use these to address problems of congestion.
- 1.8 Metro and Leeds City Council have been working to develop an affordable, value-for-money, proposal for the three Supertram corridors in Leeds. This work, and the revised submission for funding, is described below. Further details are provided in the following Appendices:
- |            |  |
|------------|--|
| Appendix 1 | Appraisal Definitions and Guidance               |
| Appendix 2 | Executive Summary of Revised Appraisal           |
| Appendix 3 | Summary of Tram Appraisal                        |
| Appendix 4 | Summary of Bus Rapid Transit Appraisal           |
| Appendix 5 | Summary of Bus Appraisal                         |
| Appendix 6 | Supertram Powers                                 |
| Appendix 7 | Economic Impacts – Summary of Consultants Report |
| Appendix 8 | The Wider Economic Impacts of Leeds Supertram    |

## **2 SUMMARY OF WORK TO DEVELOP A REVISED SUBMISSION**

- 2.1 Transport issues on the three Supertram corridors have been re-assessed through the work of a small Metro and Leeds City Council team, with advice from consultants and liaison with Department for Transport (DfT) officials.

- 2.2 The work included a re-statement of objectives (essentially an update to reflect changes in regional and local plans), the identification of potential viable solutions and appraisal of these solutions in relation to objectives, using current DfT guidance and methodology.
- 2.3 Three options were considered to be potentially viable and affordable. These options (reduced tram, bus rapid transit and conventional bus with rail enhancement) have been considered and endorsed by the Leeds Transport Review Group and also reported to the WYPTA Supertram Working Group.
- 2.4 Quality Bus contracts were also identified as complementary to the reduced tram proposal through better integration of transport modes and reduced risk of revenue abstraction and savings in bus operating costs.
- 2.5 These options were developed further, including cost elements (construction, maintenance, operation, financing, promoters costs) and benefits (patronage, revenue, non-user benefits, safety, environment, economic).
- 2.6 The options were appraised by independent consultants using the transport model developed for Leeds (and used for other studies such as the work on the Leeds Outer Ring Road) in line with current DfT guidance and methodology. The costs for the reduced tram option were provided by the bidders and based on their detailed tenders for the earlier ITN process.
- 2.7 Whilst the appraisal is based upon a multi-criteria approach (known as the New Approach to Transport Appraisal), the two elements that are of greatest headline significance are the Benefit: Cost Ratio and the Net Present Value (indicating Value for Money), and the Net Present Value of Costs (indicating affordability). Definitions of these are provided in Appendix 1
- 2.8 The revised submission has been prepared using the DfT prescribed format (an Annex E submission). The Executive Summary is attached as Appendix 2. The 'headline' values from the appraisal work, using 30 year and 60 year timescales, are set out below. These numbers are derived using DfT appraisal guidelines and discount rates and are not directly comparable with costs quoted for comparison with the original Net Present Value figure of £355 million (which was calculated using the then discount rate of 6% and at a 2001, not 2002, price base. The £561m PVC in the table below, if calculated back to 2001 prices as per the original submission, is equivalent to approx £393m). It should also be noted that it is only possible to provide these figures in this report during a tendering process because they also contain Metro and Leeds City Council costs (including land and retained risk) and are therefore not transparent to bidders. For these reasons the figures shown below should not be used for purposes other than this appraisal for DfT consideration.

Option	Present Value Costs £ Million	Present Value Benefits £ Million	Net Present Value £ Million	Benefit : Cost Ratio
Reduced Tram	561	786	225	1.40 *(2.23)
Bus Rapid Transit	383	488	105	1.27 *(2.10)
Conventional Bus (plus rail park and ride)	66	119	53	1.80 N/A

*Notes: Figures should not be used for any other purpose than this appraisal of alternative options*

*All figures are to a 2002 price base, using DfT standard discount rates over a 30 year timescale.*

*DfT advised value of optimism bias have been used for the Bus Rapid Transit and Conventional Bus options*

*6% optimism bias has been used for the reduced tram option.*

*\* Benefit: cost ratio for a 60 year timescale.*

2.9 Further information about each option is included in Appendices 3 (Tram), 4 (Bus Rapid Transit) and 5 (Conventional Bus plus Rail). There are a number of technical issues associated with each option (an example being how the public would perceive the bus rapid transit vehicle), which could lead to slight revision of the summary values shown above.

2.10 The appraisal also considered Quality Bus Contracts in conjunction with the reduced tram option. The review work indicated the introduction of QBC's on Supertram Corridors would enhance the performance of the tram option through some elements of cost saving (of bus services), avoiding revenue abstraction and better integration between modes. Whilst the National Audit Office recommends this approach, the introduction of a QBC currently involves a lengthy process and Secretary of State approval. It has therefore been shown as a further option rather than as the core case for the reduced tram.

2.11 An Economic Impact Report (EIR) has also been undertaken to supplement the revised Supertram submission, in line with current DfT guidance. The EIR concludes that, of all the options, the reduced tram has the most positive impacts, which will be experienced in a number of ways:

- Jobseekers will have access to an increased number of job opportunities;

- Employers will have access to a larger pool of labour;
  - Certainty will lead to developers developing sites in response to market demands not hindered by the extent of public transport access; and
  - Inward investors will be more easily and quickly found.
  - The number of jobs in Leeds will grow as a result of the tram, particularly in the City Centre.
  - The levels of unemployment in the Neighbourhood Renewal Areas of Leeds will be reduced.
  - The tram will provide a further enhancement to the impacts on unemployment of a scenario of improved skills amongst RA residents.
- 2.12 It is predicted that the reduced tram option will increase the pool of jobs accessible to residents of regeneration areas by 72,000, a higher figure than the Bus Rapid Transit and bus options.
- 2.13 The results of an earlier study by Leeds Metropolitan University of the wider benefit of Leeds Supertram are reported in Appendix 8. The Executive Summary of their report concludes that the major impacts of the Leeds Supertram scheme are likely to be:
- the generation and safeguarding of up to 1,300 direct jobs and 7,000 indirect jobs in the construction phase
  - the provision of transport capacity to underpin the very significant forecast of further employment, population growth and inward commuting
  - the delivery of positive impacts on retail activity in the central area of Leeds and on property and land values.
  - to help new areas of employment growth in Leeds to be better connected to neighbourhoods and communities;
  - the generation of significant sub-regional impacts to help drive the Leeds city-region forward
- 2.14 The reduced tram option also performs well in other appraisal considerations, such as the impacts of air quality, safety and integration.
- 2.15 The overall key messages set out in the revised submission are:
- High quality public transport on the three routes is essential to the future economic growth in Leeds, which has wider benefits, and to the regeneration of inner-city communities
  - Metro and Leeds City Council have responded to the January 2004 message from the Secretary of State and can now present a lower cost tram scheme with a strong Benefit : Cost Ratio and which

reflects the recommendations of the National Audit Office report as far as such recommendations are within the control of the Promoter

- Metro and Leeds City Council have also considered viable alternatives of Bus Rapid Transit and high quality conventional bus. Both these options perform well but provide less overall benefit than Leeds Supertram
- The previous work and the latest Economic Impact Report (carried out to current DfT guidance) confirm the local and sub-regional positive economic impacts, and Leeds Supertram's positive impacts on Regeneration Areas.
- Metro and Leeds City Council wish to respond positively to the challenges (and opportunities) set out in the July 2004 Transport White Paper and have indicated how they wish to explore a more robust approach to demand management. Metro and Leeds City Council also wish to respond to other aspects of the White Paper/Rail Review but initially see these as being less relevant to transport issues on these three corridors.
- Metro and Leeds City Council are seeking DfT support for the reduced tram option, with the next step being further work on costs and risks through the Best and Final Offer (BAFO) process, which will require DfT funding of between £2.5 and £3 million.
- Metro and Leeds City Council will do further work on complementary demand management measures in parallel with the proposed BAFO process, which will also, if possible, feed into the LTP2 process.

### **3 DESCRIPTION OF THE REDUCED TRAM PROPOSAL**

- 3.1 The costs of the Leeds Supertram scheme have been reduced through reduction of the network and changes to risk allocation within the procurement method. It should be noted that the amendments to the network and to service frequency, undertaken to reduce costs, have resulted in a scheme that does not meet our full aspirations (in terms of benefit-cost ratio). There would, however, be opportunities to subsequently seek funding to extend the scheme and/or enhance frequencies.
- 3.2 These changes would form the basis of the proposed BAFO process. This process would achieve cost certainty but also allow full and final consideration of whether the proposals from bidders meet Metro and Leeds City Council's aspirations for the city and properly meet transport needs. These changes, and their implications, are set out below.

## Network

- 3.3 The reduced network involves termination of the South Line at Balm Road, rather than serving Middleton and Tingley as originally envisaged. The removal of the stop at Shaw Lane (North Line) and Seacroft Ring Road (East Line), and amalgamation of stops on Harehills Road (to a central location adjacent to the proposed community facility) are also proposed. The reduced, and original, networks are shown on Figure 1. The option to subsequently extend the Supertram to Tingley would be retained for future consideration and, in the interim, existing bus infrastructure upgraded in line with other bus enhancement programmes.
- 3.4 The provision of tramstops that would form the basis of the proposed BAFO process is shown below. It is intended that tramstops shown in italics will not be taken forward at this stage.

<b>North Line</b>	<b>East Line</b>	<b>South Line</b>
Bodington (P&R) Min Space: 900	Grimes Dike (P&R) Min Space: 300	Stourton (P&R) Min Space: 1500
Lawnswood	Whinmoor	Church Street
West Park	Seacroft Centre	St Joseph's
Churchwood Ave	Kentmere Avenue	Clarence Dock
St Chad's	North Parkway	Riverside
Headingley Centre	Wyke Beck	Boar Lane
Headingley Hill	Oakwood Lane	City Square
Hyde Park Corner	Arlington Road	<i>(Tingley (P&amp;R) Min space: 300)</i>
Woodhouse	Fforde Grene	<i>Middleton South</i>
University of Leeds	New Harehills Central	<i>Middleton Circus</i>
Civic	St James' Hospital	<i>Middleton Park</i>
Cookridge Street	Burmantofts Street	<i>Middleton District Centre</i>
<i>(Shaw Lane)</i>	Quarry Hill	<i>Middleton Ring Road</i>
	Markets	<i>Belle Isle South</i>
	Eastgate	<i>Belle Isle Central</i>
	Albion Street	<i>Belle Isle North</i>
	<i>(Seacroft Ring Road)</i>	<i>Balm Road</i>
	<i>(Harehills North)</i>	
	<i>(Harehills South)</i>	

3.5 The key service characteristics that would form the basis of the proposed BAFO process are summarised below. The agreed characteristics are yet to be fully formulated and will be subject to change through clarification and discussion during the BAFO process.

<b>Characteristic</b>	<b>Description</b>
Tram Frequency	Tram to run every day except Christmas Day Public Holidays - frequency at least as Sunday service Service Levels: - City Centre– 10 trams per hour (6 minute frequency) Peak service: - Mon to Fri 0700 – 1830 Sat 0900 – 1730  All other times – 4 trams per hour (15 minute frequency)
Maximum Permitted Journey Times	Bodington to City Square 25 mins Stourton to City Square 16 mins Grimes Dike to City Square 31 mins Bodington to Stourton 41 mins Clarence Dock to Grimes Dike 43 mins Headingley Centre to Oakwood 36 mins
Times of first and last trams	First Departures Mon – Sat first P&R sites departure 0600 Mon – Sat first City Centre departure to allow for 0600 departure from P&R sites  Sunday first P&R sites departure 0700 Sunday first City Centre departure to allow for 0700 departure from P&R sites  Last Departures Mon –Sun last P&R sites departure to allow for 2400 departure from City Centre Mon – Sun last City Centre departure 2400
Park and Ride Site Capacity	Stourton P&R – 1,500 initially rising to 3,000 spaces Bodington P&R – 900 spaces Grimes Dyke – 300 initially (capacity 500)
Tram Capacity	Capacity not less 180 passengers
Max Speed	Trams to be capable of running at no less than 70kph

## Urban Design, Highway Interface and Programme Issues

- 3.6 The urban design and highway interface requirements for the scheme are set out in the Design Standards Guide (DSG) and Highways Interface Document (HID). These documents have been updated and clarified in anticipation of the Best and Final Offer (BAFO) stage and both bidders were sent copies of the DSG Clarification document and the revised HID prior to submitting their revised bids.
- 3.7 In more recent discussions, both bidders have indicated that their revised submissions have taken into account the requirements of these draft BAFO documents, but further work through the Best and Final Offer stage will be required to confirm whether the reduced bids now on the table do actually meet the current requirements as set out in the approved DSG and HID.
- 3.8 There is therefore, a risk that a final scheme will not fully comply with the urban design and highway requirements as currently agreed by the City Council. Issues such as quality of surface finishes, extent of highway works, compliance with restrictions including Christmas working, responsibility for further highways maintenance and provision of landscaping and public art are examples of areas where the bidders may seek further variation or relaxation of current BAFO requirements.
- 3.9 Whilst this risk must be acknowledged at this stage, it should also be borne in mind that we still have competitive bids for the scheme, and each bidder will therefore be seeking to demonstrate to the Promoters their willingness to deliver a compliant scheme in order to qualify as the appointed concessionaire.
- 3.10 There is no way, prior to BAFO, that these “compliance risks” can be resolved or quantified at this stage. Subject to DfT approval for the BAFO process, detailed discussion will allow resolution of the issues identified, and any gaps or concerns at that stage will be brought back to both Promoters. At the preferred bidder stage, prior to any final contract close, it will therefore be possible to establish and report any necessary changes or relaxations required to the currently approved documents.

### Risk allocation

- 3.11 Key risk areas (Programme, Funding and Operations Period ) have been addressed through the further discussions with bidders and the Department for Transport.
- 3.12 It became apparent through these discussions that the original bids contained substantial monies in respect of risk premia and that significant cost reduction could be achieved through the re-allocation of risk. The proposed steps to achieve this cost reduction are described below.

### Programme

- 3.13 The ITN documents placed restrictions on the timing and phasing of highway works, which was treated as risk by the bidders and inflated their offers. Some of these restrictions have been relaxed, thereby reducing the risk to the programme for the installation of the infrastructure.

### Funding

- 3.14 The phasing of 'milestone' payments (payable at the successful completion of project stages) has been revised to reduce the 'backloading' of payments and thereby reduce financing costs and associated risks.

### Operations Period

- 3.15 It is proposed that the Metro and Leeds City Council retain part of the risk associated with the following areas after the start of operations.

Operations Period	Additional cost of the repair of utility apparatus Fares Revenue. Business / Local Rates Wage inflation above a fixed level Insurance premia increases Power costs
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The implications are set out below.

### Utilities

- 3.16 Following the diversion of underground utilities there will be a significant amount of utility apparatus remaining under or adjacent to the tram track. As part of the work associated with diversions we will incorporate special measures such as additional ductwork, side access manholes, etc. These will mitigate against the future cost of repairs. Any repairs to utility assets under tram tracks will be carried out at the cost of the relevant utility company but there will be an additional cost associated with the resultant repair to the tram track bed and rail. The cost of this risk throughout the operating period has been assessed and incorporated within the financial model.

### Revenue Risk

- 3.17 The proposed approach to revenue risk in the majority of the operating period would be based upon sharing risk on a 'banded' basis. This is after an initial five year ramp-up period, during which Metro and Leeds

City Council would assume risk, receiving all the farebox revenue in return for payment of an increased availability payment to the Concessionaire. Thresholds setting the bands will reflect the Metro / Leeds City Council and bidders forecast of revenue, with Metro / Leeds City Council meeting a proportion of shortfalls but also benefiting from revenue in excess of forecasts.

- Metro and Leeds City Council would issue a patronage and revenue forecast which represents its expectation of 'worst case' farebox income. They would guarantee 90% of the shortfall of revenue below this forecast.
- Above this level, 50% of revenue shortfall will be guaranteed up to the individual bidders central forecast of farebox revenue.
- The Concessionaire would retain all revenue between this forecast and Metro / Leeds City Council's central forecast
- Beyond this level, 50% of increased farebox revenue will be repaid to the Metro and Leeds City Council.

All amounts that are guaranteed by Metro and Leeds City Council would be subject to the normal performance mechanism. This means that if only 50% of the service is run in a month, then only 50% of the element of revenue that is guaranteed will actually be paid.

#### Business Rates

- 3.18 The risk issues associated with rates relate to the method of calculation of rateable value (there is no fixed method for dealing with the valuation of such assessments) and the future increase in rates. An amount has been incorporated to reflect the shortfall of the capital sum representing the rates payable and we have identified the element of risk associated with increases in the rates payable.

#### Employment Costs

- 3.19 Bidders were concerned that wages, especially drivers' wages, might rise at a rate significantly above inflation, and the bids reflected this risk. It is proposed that Metro and Leeds City Council assume the risk of cost increases above the average earnings index (AEI). The bidders will be required to incorporate an allowance of 4% p.a (the average increase in the AEI over the previous 13 years). Further work will be required to agree a reasonable index for wage inflation risks.

#### Insurance

- 3.20 Transport related insurance costs have increased significantly in recent years. The cost of insurance associated with the scheme has been reviewed and it has been concluded that the initial premia are expensive and during a BAFO phase will decrease. The insurance

market is still nervous after September 2001 but indications are that the rate of increase in premia is slowing. An increase of 5% per annum for insurance premia has been assumed, commencing at year 1 of operations. RPI at 2.5% has been built into the calculation and the additional amount of 2.5% is dealt with as a 'risk', retained by the Metro and Leeds City Council.

#### Power

- 3.21 It is proposed that Metro and Leeds City Council assume the risk of the increase of the cost of electrical power (not the amount of power required), above 2.5% p.a.

#### Summary of Implications for Metro and Leeds City Council

- 3.22 For reasons of commercial confidentiality, detailed information will be provided at the meeting.

### **4 TRANSPORT WHITE PAPER – ROLE OF DEMAND MANAGEMENT**

- 4.1 The July 2004 Transport White Paper encourages local transport authorities to consider bolder measures to address traffic congestion and the establishment of a new Transport Innovation Fund. The White Paper, and Rail Review, also propose new management arrangements for local rail services in Passenger Transport Executive (PTE) areas, with PTEs having the ability to improve service levels, provided they fund the cost, or reduce service levels and retain the savings for other transport provision.
- 4.2 The following draft text seeks to set out the local position towards demand management measures and the promised rail flexibilities set out in the July 2004 Transport White Paper and Rail Review:

*Metro and Leeds City Council fully recognise the key role effective management of the road network has in sustaining the economic growth of Leeds and securing its future prosperity.*

*For Leeds to continue its role as the engine room of the regional economy it needs to be supported by the necessary measures required for an efficient sustainable and prosperous 21<sup>st</sup> Century City which continues to see economic growth and success.*

*Local policies and strategies including the Local Transport Plan fully reflect this position and a series of demand management measures have already been put in place. These measures all focus on the re-allocation of road space at specific locations with a view to providing the most efficient means of addressing the transport issues, and constraints at that location. These measures include: -*

- *the nationally pioneering Guided Busways on Scott Hall Road and York Road incorporating bus priority at signal control junctions*

- *the UK's first High Occupancy vehicle lane at Stanningley Road*
- *14 km of bus priority lanes, including "bus gates" on approaches to the city centre*
- *establishment of the Public Transport Box and exclusion of through traffic in the heart of the city centre*
- *fiscal measures to reduce the attractiveness of city centre long stay parking*
- *development control parking standards to limit the provision of new spaces in the city centre*
- *Travel Plans for major employers in the city including Leeds City Council*
- *Improvements to public transport efficiency and capacity, notably at Leeds City Bus and Railway Stations, and on major corridors*

*The proposed introduction of the tram will maintain and develop this approach to demand management by further significant re-allocation of road space by:-*

- *4km of tram lane on the highway*
- *Traffic signal priorities for the tram*

*Any further demand management measures will have to be considered in the light of:-*

- *The emerging central government policy set out in the Transport White Paper, Rail Review and Department for Transport report on the feasibility study of road pricing in the UK*
- *The implementation of the proposed Supertram scheme*
- *Evaluation of the relative effectiveness of the existing bus and junction priorities*
- *The emerging evaluation of further demand management measures*

*Further demand measures are being carefully considered as part of our work on LTP 2. This is in the context that West Yorkshire is a metropolitan conurbation, in relative close proximity to other centres, including the core cities of Manchester and Sheffield. The transport related benefits (reduced congestion, improved air quality and safety) will need to be assessed in relation to potential disbenefits, including a loss of economic competitiveness. In addition, public acceptability and compliance will also need to be carefully considered. In conducting our*

*work it will be essential that the local authority, stakeholders and public are clear about the future purpose and function of demand management measures in terms of their contribution to congestion and the effective management of the local road network.*

*It is believed that Quality Bus Contracts would be necessary as part of further demand management measures in order to ensure accessibility through high quality bus services, including affordability to users.*

*Metro has given some preliminary consideration of the flexibilities to vary local rail services set out in the Rail Review. The immediate consequence has been to broaden the current study of the Harrogate Line to explore lower cost options that would also allow the expansion of the line's catchment and provide improved public transport access to Leeds-Bradford airport. Other cost savings will be explored but will require the development of an industry cost-allocation model.*

*Metro and the five West Yorkshire District Councils will be considering the Transport White Paper and guidance for second Local Transport Plans in developing the second West Yorkshire Local Transport Plan. Local studies will be commissioned to explore the role of demand management measures and other aspects of the White Paper. The scope for new approaches and for making use of the flexibilities set out in the Rail Review are dependent upon the ability to secure much needed investment in transport infrastructure and services, including resolving current short-comings in the provision of local bus services.*

*Metro and Leeds City Council therefore seek an approach which continues the in-depth consideration of demand management measures in parallel with the proposed next stage the "Best and Final Offer" process and the preparation of LTP2.*

## **5 POSITION REGARDING SUPERTRAM POWERS**

- 5.1 The position regarding Supertram powers and associated issues is detailed in Appendix 6. The principal issue is the expiry of CPO and other powers at the end of March 2006.
- 5.2 The following actions (relating to Land Acquisition, Planning Powers and Listed Building and Conservation Area Demolition Consent) are proposed as a means of preserving Leeds Supertram powers.

### Land Acquisition

- 5.3 The course of action to guarantee that the required land will be available on commencement of the Supertram contract is to continue with the acquisition process. This, however, requires the full support of the DfT in terms of commitment to funds or a legal challenge could be forthcoming from affected parties.

- 5.4 If funding for the scheme is not confirmed then the alternative action is to seek renewal of the Land Acquisition Powers through Transport and Works Order Act procedures. This process itself is estimated to cost between £750,000 and £1.5 million, as it is likely to involve a Public Inquiry with no guaranteed outcome, and could take a minimum of 18 to 24 months to “granting” of the consent.

#### Planning Powers

- 5.5 The recommended action is to seek an extension of the time limit from the Local Planning Authority. Application would need to be made 6 months prior to the Order expiry date ( 28th March 2006) i.e. by September 2005, requires minimal expenditure and minimises the risk of a re-opening of the wider debate on the justification of the scheme. Approval of a variation to the time limit condition would extend the planning powers until March 2011.
- 5.6 In parallel with the above there may be an opportunity to carry out works in conjunction with adjacent developments or highway schemes at minimal cost to the project, if these works accord with the Works described in the Extension Order. This would have the benefit of safeguarding approval in perpetuity as well as reducing the project’s construction costs and programme.

#### Listed Building and Conservation Area Demolition Consents

- 5.7 The recommended action is to seek an extension of the time limit attached to each of the Consents. This is a relatively straightforward process which again minimises the risk of re-opening the debate on the wider issues of the impact of the scheme on Listed Buildings and Conservation Areas and would involve minimal cost. The applications would have to be referred to the Secretary of State, and given no change in material circumstances the Secretary of State is unlikely to raise any objections. Application would need to be made 6 months prior to the Order expiry date ( 28<sup>th</sup> March 2006), i.e by September 2005.

#### Section 85, New Roads and Street Works Act 1991 Notices (NRSWA 1991)

- 5.8 The NRSWA 1991 includes for the provision for costs of a diversion to be borne by the Utility where ‘ the apparatus in question was placed in the Street after the authority had given the undertaker the prescribed notice of their intention to execute works’.
- 5.9 Basically this ensures no utility company places their apparatus in the street which they know will be required to be diverted shortly afterwards due to the execution of works of which they were already notified.
- 5.10 The Supertram Team served the relevant S85 Notices on the utilities companies thereby giving them the requisite notice of the works

necessary for Leeds Supertram. The Notices have a general 'shelf life' of 5 years after which the utility companies can place / divert apparatus into the path of the proposed tram and the future costs of any diversions will then have to be borne by the Project, based on the normal NRWSA cost sharing basis (i.e., 92.5% - 7.5% split).

- 5.11 The potential re-issue of the S85 Notices (and in the case of the South Line 3<sup>rd</sup> re-issue) is very likely to be challenged by the utilities who will argue that the intention of the Notices has been greatly abused.

## **6. PROPOSED NEXT STEPS**

- 6.1 It is proposed to hold a local launch of the revised submission on the morning of 15 November 2004. Associated activities are local information, building a lobbying campaign, arranging for bidders to meet with DfT and arranging for a local delegation (primarily politicians) to meet with the Secretary of State.
- 6.2 It is proposed that the submission asks for DfT support for the reduced tram option and, as the next step, seek DfT funding for the BAFO process and works to retain powers. It may be necessary to consider work to a Commercial Close, but not Financial Close, as a way of progressing the project if national funding is constrained in the short-term. This approach would require commitment to Financial Close once national funding was fully available.

## **7 DECISIONS REQUIRED**

- 7.1 The following decisions are required:
- a) To receive the results of the review of options for the three Supertram corridors and to endorse the reduced tram option as representing the best means of meeting the objectives of Metro and Leeds City Council.
  - b) To note the proposed approach to risk, and the potential implications for Metro and Leeds City Council, and to endorse further work on risk transfer and management during the Best and Final Offer process.
  - c) To approve the revised tram option for submission to the Department for Transport, with the request that the Department for Transport supports the scheme and as the next step funds the costs of the Best and Final Offer process.
  - d) To recognise that it may be necessary to consider work to a Commercial close, but not Financial Close, as a way of progressing the project. This approach would require commitment to Financial Close once national funding was available
  - e) To request the Department for Transport to assist, with funding, the necessary steps to protect the CPO and other powers that are required as a condition precedent for financial close.

- f) To undertake further work on demand management measures in parallel with the 'Best and Final Offer' process and preparation of LTP 2.

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**DEPARTMENT FOR TRANSPORT APPRAISAL GUIDANCE AND TERMS**


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<b>Term</b>	<b>Definition</b>
Present Value of Costs (PVC)	Discounted sum of all future costs over the appraisal period. – (60 years in line with recent changes in guidance).  The Treasury/DfT discount rate is currently 3½ % for years 1-30 and 3% for years 31-60. %.
Present Value of Benefit (PVB)	Discounted sum of all future benefits over the appraisal period (60 years in line with recent changes in guidance)  The Treasury/DfT discount rate is currently 3½ % for years 1-30 and 3% for years 31-60.
Net Present Value (NPV)	PVB – PVC – the difference between the present value of benefits and the present value of costs. The figure indicates the totality of the scheme benefit for aspects that are given a money value (e.g. time savings, accidents, construction and maintenance)
Benefit: Cost Ratio (BCR)	Present value of Benefits/Present value of costs

Note: All costs and benefits for the scheme appraisal are Present Value, at 2002 prices.

DfT appraisal guidance:

[http://www.webtag.org.uk/webdocuments/1\\_overview/1introduction to transport analysis/index.htm](http://www.webtag.org.uk/webdocuments/1_overview/1introduction%20to%20transport%20analysis/index.htm)

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**REVISED SUBMISSION –EXECUTIVE SUMMARY**


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Metro and Leeds City Council have, through liaison with the Department for Transport, undertaken the work directed in January 2004 by the Secretary of State for Transport to develop alternative options to the original proposals for a 28 km, three line light rail network for Leeds.

Following wide-ranging initial scoping work, three alternative options were developed for appraisal as potentially viable solutions to transport problems on the three Supertram corridors consistent with the West Yorkshire Local Transport Plan and other transport and planning guidance and economic strategy.

The three options were:

- A reduced tram option, based upon the original three line Supertram network but with deferral of part of the south line from Balm Road to Tingley.
- A Bus Rapid Transit option, with a route closely based upon the Leeds Supertram network, including park and ride provision.
- A quality bus option, incorporating a significant upgrade to local bus services and rail based park and ride provision on the Harrogate Line to the north of Leeds, and on the York/Selby Line.

An appraisal of these options in accordance with current DfT guidance has been undertaken. The headline figures (Present Value of Costs and Benefits, Net Present Value and Benefit to Cost ratio) are set out below.

<b>Option</b>	<b>Present Value Costs £ Million</b>	<b>Present Value Benefits £ Million</b>	<b>Net Present Value £ Million</b>	<b>Benefit : Cost Ratio</b>
Reduced Tram	561	786	225	1.40 *(2.23)
Bus Rapid Transit	383	488	105	1.27 *(2.10)
Conventional Bus	66	119	53	1.80 *(2.26)

Notes: *Figures should not be used for any other purpose than this appraisal of alternative options*

*All figures to 2002 price base, using DfT standard discount rates over a 30 year timescale.*

*DfT advised value of optimism bias have been used for the Bus Rapid Transit and Conventional Bus options*

*6% optimism bias has been used for the reduced tram option.*

\* *Benefit: cost ratio for a 60 year timescale.*

The option appraisal indicates that all options are consistent with national and local policies and would contribute to the solution of transport problems on the three corridors. However, the values above indicate that the reduced tram represents the best option for addressing transport problems on these three corridors as it has a higher NPV and BCR than the Bus Rapid Transit option and a much higher NPV than the bus option, although the BCR is lower.

In addition, the Economic Impact Report undertaken as part of this exercise indicates that the tram would have the biggest impact in connecting people to employment opportunities. A separate economic study undertaken by Leeds Metropolitan University in 2003 set out the wider beneficial economic impacts of Leeds Supertram.

The appraisal also

- notes a number of problems associated with the Bus Rapid Transit options, primarily as a consequence of the de-regulated environment for the operation of bus services outside London.
- That the overall cost-benefit performance of the tram option, and its impacts identified in the economic impact report, would be enhanced through a complementary bus quality contract to ensure integration between bus and tram services.
- That the overall cost-benefit performance of the tram option would be enhanced by suitably designed and implemented demand management measures.

The option appraisal identifies a range of other impacts, in line with the New Approach to Transport Appraisal, and these are summarised in Appraisal Summary Tables. In general, the tram option makes the most overall positive contribution to the achievement of national and local transport objectives.

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**APPRAISAL OF REDUCED TRAM OPTION**


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1 The tram network has been appraised on the basis of the de-scoped options as put forward by the two bidding consortia and which would, if endorsed by Metro and Leeds City Council, form the basis of the BAFO process. The key characteristics are .

The provision of tram stops that would form the basis of the proposed BAFO process is shown below.

Note: It is intended that Tramstops shown in *italics* will not be taken forward at this stage

<b>North Line</b>	<b>East Line</b>	<b>South Line</b>
Bodington (P&R) Min Space: 900	Grimes Dike (P&R) Min Space: 300	Stourton (P&R) Min Space: 1500
Lawnswood	Whinmoor	Church Street
West Park	Seacroft Centre	St Joseph's
Churchwood Ave	Kentmere Avenue	Clarence Dock
St Chad's	North Parkway	Riverside
Headingley Centre	Wyke Beck	Boar Lane
Headingley Hill	Oakwood Lane	City Square
Hyde Park Corner	Arlington Road	<i>(Tingley (P&amp;R) Min space: 300)</i>
Woodhouse	Ffode Grene	<i>Middleton South</i>
University of Leeds	New Harehills Central	<i>Middleton Circus</i>
Civic	St James' Hospital	<i>Middleton Park</i>
Cookridge Street	Burmantofts Street	<i>Middleton District Centre</i>
<i>(Shaw Lane)</i>	Quarry Hill	<i>Middleton Ring Road</i>
	Markets	<i>Belle Isle South</i>
	Eastgate	<i>Belle Isle Central</i>
	Albion Street	<i>Belle Isle North</i>
	<i>(Seacroft Ring Road)</i>	<i>Balm Road</i>
	<i>(Harehills North)</i>	
	<i>(Harehills South)</i>	

The key service characteristics that would form the basis of the proposed BAFO process are summarised below. The agreed characteristics are yet to be fully formulated and will be subject to change through clarification and discussion during the BAFO process.

<b>Characteristic</b>	<b>Description</b>
Tram Frequency	Tram to run every day except Christmas Day Public Holidays - frequency at least as Sunday service Service Levels:- City Centre– 10 trams per hour (6 minute frequency) Peak service:- Mon to Fri 0700 – 1830 Sat 0900 – 1730  All other times – 4 trams per hour (15 minute frequency)
Maximum Permitted Journey Times	Bodington to City Square 25 mins Stourton to City Square 16 mins Grimes Dike to City Square 31 mins Bodington to Stourton 41 mins Clarence Dock to Grimes Dike 43 mins Headingley Centre to Oakwood 36 mins
Times of first and last trams	First Departures Mon – Sat first P&R sites departure 0600 Mon – Sat first City Centre departure to allow for 0600 departure from P&R sites  Sunday first P&R sites departure 0700 Sunday first City Centre departure to allow for 0700 departure from P&R sites  Last Departures Mon –Sun last P&R sites departure to allow for 2400 departure from City Centre Mon – Sun last City Centre departure 2400
Park and Ride Site Capacity	Stourton P&R – 1,500 initially rising to 3,000 spaces Bodington P&R – 900 spaces Grimes Dike – 300 initially (capacity 500)
Tram Capacity	Capacity not less 180 passengers
Max Speed	Trams to be capable of running at no less than 70kph

- 1 The reduced tram options defer the Balm Road to Tingley section, although proposals have been developed for complementary bus service and facility enhancements to enable existing bus routes to feed seamlessly into the Supertram spur in the Balm Road area. Future implementation of tram on this section remains an aspiration of Metro and Leeds City Council, therefore significant expenditure on fixed infrastructure was not considered to be an option.

- 2 The appraisal is based upon costs derived from both the initial full tendering process and the recent reduced network tendering process. As a result it is believed that the application of the higher level of 'optimism bias' is not appropriate and a lower value of 6% should be used. .
- 3 A 22km tram network has been appraised, reduced from the initially approved 28km network as described above. Levels of segregation are high, as set out in the table below. Where mixed running is in operation, trams generally benefit from signal and junction priority. .

	<b>Segregated</b>	<b>Mixed Running</b>
<b>TRAM</b> Total 22 km	4.4 km off-highway  4.0 km in-highway (central reserve, side verge)  3.6 km on-street	10 km on-street

- 4 The results of the cost-benefit analysis for the best performing of the bidder options are summarised below in terms of both a 30 and 60 year appraisal. For a tram scheme we would assume that the 60 year appraisal is of greater significance as an economic indicator in terms of the inclusion of full lifecycle costs.

	30 Year Appraisal	60 Year Appraisal
PVC	£ 561m	£ 653m
PVB	£ 786m	£ 1,458m
NPV	£225m	£805m
BCR	1.40	2.23

- 5 The presentation of costs and benefits within the current appraisal framework (the Transport Economic Efficiency (or TEE) Table) includes operating costs as a negative figure within the scheme benefits. If these are removed from the above PVB figures, the true scale of the tram benefits become clearer. These are worth £914m over the 30 year appraisal period in discounted terms (or £1.61 billion for the full 60 year appraisal).
- 6 A further appraisal was also undertaken which assumed that a Quality Bus Contract (QBC) was in operation on the Supertram corridors (North and East only. The South Line proved more problematic to dovetail services satisfactorily, therefore a QBC has not been assumed on this route). As a result of complementary QBC measures, the Benefit: Cost ratio rose to 1.55:1 (or 2.44:1 for the full 60 year appraisal).

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**APPRAISAL OF BUS RAPID TRANSIT OPTION**

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- 1 The Bus Rapid Transit (BRT) alternative is based upon a rubber-tyred vehicle that is similar to a tram in appearance (e.g. the Civis vehicle, as shown below). Routes have been defined to broadly replicate those of Supertram (with equivalent levels of segregation where feasible) and have been subject to detailed work on scoping, route definition, capital and revenue costs and journey times.



Civis Vehicle: Clermont-Ferrand, France

- 2 A 25km network has been appraised, which is 3km longer than tram as a result of the inclusion of the Balm Road to Tingley section. Approximately 50% of the network operates as segregated to general traffic running, as shown in the table below.

	Segregated	Mixed Running
<b>BRT</b> Total 25 km	3.0 km off-highway  7.8 km guideway, segregated busway  4.5 km existing bus lane (single direction)	12 km on-street

- 3 The network would be developed at a cost of around £210m, with annual operating costs in the order of £9.2m. Lifecycle costs have also been included within the option appraisal. Application of Optimism Bias has been discussed with DfT and, resultantly, a figure of 44% has been applied to the scheme costs. A QRA workshop has been held to identify any key risks within the project. The assumed operating pattern is as follows:

- Bodington-Seacroft – 10 buses/hr;
- Stourton-Bodington – 10 buses/hr; and

- Middleton South-Seacroft – 10 buses/hr.

4 A detailed run time model was developed to provide bus journey times on a comparable basis to that of the tram. The headline journey times are:

- Bodington to Civic Hall, 21.3 minutes (tram=19. minutes);
- Stourton to Brewery Wharf, 15 minutes (tram = 13. minutes);  
and
- Seacroft to Bus Station, 22 minutes (tram = 19. minutes).

5 The results of the cost-benefit analysis are summarised below. The appraisal of this option has assumed that the vehicle will be perceived as being more akin to a bus than a tram, with a reduced impact of mode choice and mode switch.

	30 Year Appraisal	60 Year Appraisal
PVC	£383 m	£463 m
PVB	£ 488m	£971 m
NPV	£105m	£508m
BCR	1.27	2.10

6 In the same way as for the tram, the presentation of costs and benefits within the current appraisal framework (the Transport Economic Efficiency (or TEE) Table) includes operating costs as a negative figure within the scheme benefits. If these are removed from the above PVB figures, the true scale of the BRT benefits become clearer. These are worth £611m over the 30 year appraisal period in discounted terms (or £1.1 billion for the full 60 year appraisal). These represent approximately 2/3 of the benefits that are derived for the tram option.

7 The considerable development work on this option has revealed some fundamental questions relating to Bus Rapid Transit deliverability on these corridors. The key issues relate to the means by which BRT can be procured in terms of:

- The fact that the system would be subject to bus legislation and regulation. However the majority of the route utilises existing highway, therefore a concession agreement may not be possible; and
- Quality Bus Partnerships for schemes of this magnitude are considered by Metro to be extremely risky since there would be no guarantees available on service frequency, fare levels, vehicle access controls, capture of regeneration/employment benefits and guaranteed use of vehicles on corridors;

- 8 Metro do recognise that scope exists for the application of Bus Quality Contracts for key transport corridors (in line with the recently published Transport White Paper), but have concluded that there are a significant number of delivery risks in its application to BRT. These include:
- Maximum length of a Bus Quality Contract set at 5 years, with no guarantee of renewal; and
  - Bus operator opposition to the imposition of such a scheme, with potential for a robust legal challenge being sought.
- 9 Powers would also need to be sought for this option Acceptability of land-take for a bus scheme (as opposed to tram) may be questioned for a number of locations (Headingley and Wyke Beck).
- 10 We therefore have concerns relating to the overall deliverability of this option, although we are working with DfT to understand these issues more fully and identify resolution as this type of vehicle may be relevant to other corridors in West Yorkshire.

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**APPRAISAL OF BUS OPTION**


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Quality Bus

- 1 A lower cost alternative was also appraised alongside Supertram and the Bus Rapid Transit Option. The Yorkshire Bus Initiative (YBI) seeks to bring about a step-change in bus services on the core network to meet modal choice and social inclusion objectives. A YBI option was developed to mirror the Supertram corridors and has been appraised on a comparable basis to the Supertram and BRT options.
- 2 The scheme has been developed to a similar level of detail as BRT and has been costed at approximately £35m. Lifecycle costs have also been included, adding in a further 60% cost uplift over the scheme's life. A QRA workshop has been held to identify any key risks within the project. Optimism Bias has been applied at the 32% level in line with DfT guidance for schemes at this stage of development.
- 3 It has been assumed that the Do-Something YBI service patterns and frequencies are unchanged from those existing at present, which reflects the service that operators have already chosen to provide on a commercial basis. No additional bus services have been assumed. Assumed journey times, have been derived through application of a factor to the difference between modelled bus times and the BRT run-time estimates. These factors were based on a detailed understanding of the relative priorities that could be afforded to BRT and YBI above that of current bus provision. These are set out below:

<b>From:</b>	<b>Journey Time to City Centre:</b>
North (Bodington)	28 mins
East (Seacroft)	25 mins
South (Middleton Park Avenue)	21 mins

- 4 The results of the cost-benefit analysis are summarised below (a 60 appraisal is not considered appropriate for bus based investment):

	30 Year Appraisal
Present Value Costs	£m66
Present Value Benefits	£ 119m
Net Present Value	£53m
Benefit Cost Ratio	1.80

- 5 In the same way as for the tram and BRT, the presentation of costs and benefits within the current appraisal framework (the Transport Economic Efficiency (or TEE) Table) includes operating costs as a negative figure within the scheme benefits. If these are removed from the above PVB figures, the true scale of the YBI benefits become clearer. These are worth £113m over the 30 year appraisal period in discounted terms (a 60 year appraisal not being applicable for schemes of this nature). These represent approximately 12% of the benefits that are derived for the tram option.
- 6 These conclusions are broadly inline with Yorkshire Bus appraisal. Whilst the CBR is higher than the other options, the significantly lower NPV confirms previous work that enhancements to bus services are not an adequate transport solution on these three corridors.

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**LEEDS SUPERTRAM POWERS**


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<b>Issues</b>	<b>Existing Date</b>	<b>Expiry Date</b>
CPO Powers – south Line	Renewal of Powers – Supertram Order 29 March 2001  [Powers last for 5 years]	(Original powers expired 26 July 1998)  <b>28 March 2006</b>
CPO Powers – North & Eastern Line (plus City Centre)	Leeds Supertram (Extension) Order 29 March 2001  [Powers last for 5 years]	<b>28 March 2006</b>
Planning Consent – South Leeds	Leeds Supertram Act 1993 27 July 1993  [Powers last for 5 years]	26 July 2003 Works undertaken on Line 1 (South Leeds) have protected the 'powers'
Planning Consent – North & East Leeds (plus City Centre)	Leeds Supertram (Extension) Order 29 March 2001  [Powers last for 5 years]	<b>28 March 2006</b>
Listed Building / Conservation Area Consents – North & East Leeds (plus City Centre)	Leeds Supertram (Extension) Order 29 March 2001  [Powers last for 5 years]	<b>28 March 2006</b>
Utilities (NRSWA Section 85 Notices)*	Line 1 2 <sup>nd</sup> Notice served – August 2000  Lines 2&3 initial Notices served – September 2001  [Notices have a shelf life of 5 years]	Possible re-issue <b>August 2005</b>  Possible re-issue <b>September 2006</b>

\* Section 85, New Roads and Street Works Act 1991 Notices

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## ECONOMIC IMPACTS

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### **Extract from Summary of the Economic Impact Report prepared for Metro and Leeds City Council by independent consultants Steer Davies Gleave**

The research undertaken for this study leads to the conclusion that Leeds will benefit from the Leeds Supertram proposals. The qualitative and quantitative assessments of impact are summarised below.

The options considered are as follows:

- Option 1 – Supertram Reduced Network (SRN) – ‘the tram’;
- Option 2 – Bus Rapid Transit (BRT);
- Option 3 – Bus Only to Yorkshire Bus Initiative Standards (YBI); and
- Option 4 – Tram with Quality Bus Contract (Tram+QBC).

#### Qualitative assessment of the Impact

Employment levels are impacted through public transport by allowing supply to meet demand for labour. They are also impacted by the number and location of new jobs. Discussion with developers showed that some employment development plans have not been pursued due to the ongoing uncertainty surrounding the tram. Developers described for example their plans to change the type and scale of development in order to match the current transport infrastructure, thus scaling back from the grander plans they had when the arrival of Supertram was considered imminent. The redesigns include fewer reduced employment sites floorspace on edge of centre sites such as Clarence Dock as the links to the City Centre are not good enough without the tram. Thus, the balance between offices and residential is being amended and urban form is being adversely affected, becoming less sustainable with fewer mixed use developments.

Office developments in the absence of the tram are also more risky, with developers responding by providing smaller units along the network which are internally divisible rather than building large premises suitable for a single tenant of the type more normally attracted to prime central locations.

Investors also play a vital role in bringing businesses to employment sites and thus increasing jobs. A recent Steer Davies Gleave study for pteg has found evidence that UK light rail schemes have increased confidence in investment decisions and increased development activity by bringing a ‘buzz’ to areas served. Evidence of this is already apparent in Leeds relating

to the 2001 funding in principle decision: a developer who included the tram in their marketing found it to be major benefit to filling their site quickly. Any backtracking on the provision of the tram would have severe consequences however from those who have based investments on it.

### Quantification of the Impact

The four Alternative Options were tested using the Dynamic Model for Leeds Supertram. Results are shown below for the impact of the options on accessible jobs to residents of the RAs, on unemployment levels in RAs, and on the growth of jobs in Leeds.

The increase in accessible jobs for RA residents as a result of the options is particularly striking, and is summarised in Table 8.1 on the next page. This shows that with Option 4, the option generating the most change, each RA, on average, is benefiting from access to approximately 14,000 more jobs than without the tram. The benefit is also sizeable for Option 1 at approximately 10,000 more jobs accessible jobs for each RA on average. The impact for Options 2 and 3, while it is less, is still some 7,500 and 8,000 more accessible jobs on average respectively.

The Options also have an impact on the growth of jobs in Leeds. This is because the tram improves access to workforce, thereby easing recruitment difficulties and as a result allows more of the projected employment growth from the Roger Tym and Partners forecasts to be achieved. Table 8.2 shows the impact of the tram on job growth in Leeds City Centre, where the growth is particularly supported by the tram. The model shows that with no tram difficulty in recruiting a workforce in fact reduces absolute job numbers in the long term, but with the tram this decline is slowed and even reversed. All four options support growth in job numbers in the centre, although Option 4 has the largest effect, with as many as 3,500 additional jobs after 10 years. In addition, the Leeds Metropolitan University study indicates that the Supertram would create around 400 operating jobs.

**TABLE 0.1 CHANGES IN NUMBERS OF JOBS ACCESSIBLE TO RESIDENTS OF THE RAS, 2011**

Regeneration Area	Accessible jobs with No Tram	Additional Accessible Jobs			
		Option 1	Option 2	Option 3	Option 4
<i>East Line</i>					
East Bank	51,816	14,294 (+28%)	10,346 (+20%)	5,655 (+11%)	19,550 (+38%)
Harehills	144,720	9,195 (+6%)	5,942 (+4%)	8,551 (+6%)	14,095 (+10%)
Seacroft	100,914	9,700 (+10%)	7,644 (+8%)	8,354 (+8%)	11,583 (+11%)

Gipton	139,051	15,453 (+11%)	12,155 (+9%)	8,361 (+6%)	17,897 (+13%)
<i>South Line</i>					
Beeston & Holbeck	193,759	5,891 (32%)	3,054 (+2%)	10,963 (+6%)	10,662 (+6%)
Hunslet	184,499	9,763 (+5%)	9,327 (+5%)	7,056 (+4%)	15,840 (+9%)
<i>North Line</i>					
Little London	202,147	6,748 (+3%)	5,030 (+2%)	6,265 (+3%)	7,820 (+4%)

**TABLE 0.2 JOBS IN LEEDS CITY CENTRE AFTER FIVE YEARS AND TEN YEARS OPERATING**

Year	Jobs with No Tram	Additional Jobs			
		Option 1	Option 2	Option 3	Option 4
2016	101,587	222	280	243	1,032
2021	100,589	1,612	1,916	1,493	3,499

The results of testing the impact of the Options on unemployment in the RAs are shown in Table 8.3. The first part of the table shows the impacts in relation to the increased number of jobs across Leeds, excluding the operational jobs; and the second part includes these jobs, which are assumed to all be located in a tram depot in the Hunslet Regeneration Area. The table shows that five years after opening, Option 4, which performs best, presents a reduction of unemployment of 182 in the RAs: this represents a reduction of 6.7%.

**TABLE 0.3 IMPACTS ON JOBS AND UNEMPLOYMENT IN RAS AFTER FIVE YEARS OPENING**

Indicator	No Tram	Option 1	Option 2	Option 3	Option 4
<b>Jobs</b>	<b>21,793</b>	<b>21,761</b>	<b>21,765</b>	<b>21,792</b>	<b>21,705</b>
<b>Workforce</b>	<b>46,431</b>	<b>46,431</b>	<b>46,431</b>	<b>46,431</b>	<b>46,431</b>
<b>Unemployment</b>	<b>2,845</b>	<b>2,751</b>	<b>2,773</b>	<b>2,824</b>	<b>2,709</b>
<b>Additional operational jobs</b>	<b>0</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>400</b>
<b>RA residents into operational jobs</b>	<b>0</b>	<b>46</b>	<b>46</b>	<b>46</b>	<b>46</b>
<b>Total reduction in unemployment in RAs</b>		<b>140 (5.1%)</b>	<b>118 (4.3%)</b>	<b>67 (2.4%)</b>	<b>182 (6.7%)</b>

Since employability is highly related to skills, a scenario of improved skills amongst RA residents was also tested for Option 4. The improved scenario used in the model was for RA residents to be as employable within their skill level as non-RA residents. (This reflected removing some of the barriers experienced by jobseekers as identified during interviews with jobcentres

and recruitment agencies.) The result of the improved scenario was unsurprisingly a significant impact on reducing unemployment levels, but also a further enhancement of this effect as a result of the tram+QBC option.

The quantified impacts of the tram are summarised in Table 8.4.

**TABLE 0.4 SUMMARISED IMPACTS**

<b>Indicator</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>	<b>Option 4</b>
Increase in accessible jobs (rounded average for an RA) - 2011	10,000	7,500	8,000	14,000
Extra jobs in city centre - 2016	222	280	243	1,032
Additional operational jobs - 2016	400	400	400	400
Total reduction in unemployment in RAs - 2016	140	118	67	182

## Conclusion

In conclusion, a positive impact will be experienced in Leeds as a result of the tram. This impact will be experienced in a number of ways:

- Jobseekers will have access to an increased number of job opportunities, with RA residents benefiting from a very significant increase in accessible jobs. With Option 4, each RA, on average, will benefit in 2011 from access to approximately 14,000 more jobs than without the tram;
- Employers will have access to a larger pool of labour, with employers located in RAs benefiting from a significant increase in accessible workforce. With Option 4, each RA, on average, will benefit in 2011 from access to a workforce 6% larger than without the tram;
- Development sites will be developed more closely in line with market demands, rather than pushed towards smaller developments or residential rather than commercial uses at edge of centre sites due to limitations imposed by the extent of public transport access. Sites at the edge of the City Centre and particularly those to the south and in the north western corner of the Aire Valley are expected to benefit most from the tram;
- Inward investors will be more easily and quickly found: developers have found that inclusion of the tram in marketing material has had a useful impact on the rate of take up experienced, and a recent pteg study has identified that UK light rail schemes have brought confidence to businesses making investment decisions;
- The number of jobs in Leeds will grow as a result of the tram, particularly in the City Centre. With Option 4, over 1,000 jobs in 2016 and approximately 3,500 in 2021 are forecast to be supported in Leeds City Centre due to the tram. An additional 400 or so tram operational jobs are also forecast in the Leeds Metropolitan University report;
- The levels of unemployment in the selected RAs of Leeds will be reduced. With Option 4, this reduction is forecast to be 182 in 2016. The reduction for Option 1 is 140, for Option 2 is 118 and for Option 3 is 67; and
- The tram will provide a further enhancement to the impacts on unemployment of a scenario of improved skills amongst RA residents.

All four options provide benefit to Leeds and RAs over the no tram situation. The tram+QBC (Option 4) performs best, followed by the tram only (Option 1) and then the BRT (Option 2). Bus only to Yorkshire Bus Initiative Standards, Option 3, performs least well.

## APPENDIX 8

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### WIDER ECONOMIC IMPACTS OF LEEDS SUPERTRAM

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An earlier study of the wider economic impacts of Leeds Supertram was undertaken by LMU in 2003. The Executive Summary of their report concludes that the major impacts of the Leeds Supertram scheme are likely to be:

- in the generation and safeguarding of up to 1,300 direct jobs and 7,000 indirect jobs in the construction and build phase to 2008. The Regional Development Agency's forecasting model indicates a further 1,200 jobs would be supported in the region (outside Leeds) as a result of the scheme;
- in providing transport capacity to underpin the very significant forecast further employment, population growth and inward commuting (the Local economy forecasting model predicts Leeds has the potential to grow by an additional 44,000 jobs in total between 2002 and 2015). Leeds Supertram is a key component of the transport strategy and its implementation is a key signal of intent in addressing traffic congestion;
- in the extension and development of the central area (in line with local, regional and national policy) and the development of the retail, leisure and housing sectors in the central core, particularly south of the line at Clarence Dock and Riverside. It is expected that further investment up to £500 million could be confirmed once the scheme is fully committed;
- through positive impacts on retail activity in the central area of Leeds and in property and land value. A previous DTZ study indicated that the South Leeds line alone could result in an additional £130 million retail spend per annum in the city centre.
- in the Leeds inner city and most deprived outer communities, where the tram passes through six of the seven most deprived in the city and the housing and investment impacts arising in communities such as Harehills or Seacroft where housing and urban regeneration impacts can be maximised;
- in allowing new areas of employment growth in Leeds to be better connected to neighbourhoods and communities;
- in generating significant sub-regional impacts and driving the Leeds city-region forward giving investor and business confidence and boosting the image of Leeds for the period 2004-2015.