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City of Edinburgh
Council

Strategic Project
Review

September 02

Turner & Townsend
Management Solutions

North Edinburgh
Rapid Transit
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Executive Summary

This study, commissioned by City of Edinburgh Council, has sought to review the present development of the scheme, the appropriateness of potential procurement routes, potential funding sources, current best practice in transit scheme delivery, and the potential issues and pitfalls found on other schemes where strategies must be developed to overcome them. The principal findings can be summarised as follows:

1.1 Procurement Strategy

This study has considered the principal objectives of the City of Edinburgh Local Transport Strategy in assessing the suitability of possible procurement routes for the proposed North Edinburgh Transit Project. The potential strategies have been assessed in the light of the success or otherwise of these strategies on similar, rapid transit projects in the UK. This review is summarised in Table Exec 1 forming part of this executive summary. This assessment indicates that the strategies most worthy of further assessment are those adopted for the Leeds Supertram and NET schemes and the Design Build Maintain with separate franchise. The final decision on the detailed option to be adopted will follow the development of the scheme business case and funding application where comprehensive financial modelling and risk analysis of the strategies against a Public Sector Comparator will confirm which strategy delivers best value. Development of the strategies must continue to a level where the final decision can be taken on an informed basis and satisfy scrutiny through compliance with Treasury Green Book Guidelines.

1.2 Economic Case

Following a STAG stage 1 analysis the following were obtained:

1. Economic Net Present Value £275 million
2. Benefit Cost Ratio 2.65:1
3. Internal Rate of Return 10%

4. Annual Revenue £10.26 million

5. Annual Operating Margin £4.8 million

6. Capital Cost £191.9 million

These figures represent a sound basis on which to develop the scheme further, as recognised by the Scottish Executive. We would expect these figures to alter as the proposals are developed further, but at this stage the cost/benefit ratio is healthy.

1.3 Potential Funding Source

Potential Funding Sources have been addressed in the report for both the development and implementation phases of the project. While it is clear that the Public Sector will remain a primary source of scheme funding through PTF and other funding guises, the significant investment necessary to deliver the scheme will require development of alternative sources including Road User Charging, Developer contributions through Section 75 and capture of development gain. The potential benefit from these alternatives will require to be addressed in order to demonstrate to the Scottish Executive that all alternatives have been fully exhausted before consideration of any remaining funding gap. This reflects statements made by Scottish Parliament Transport Ministers in the recent past.

1.4 Strategic Issues

The development of rapid transit schemes in a modern urban environment is now relatively mature with many schemes in operation and many more at various stages of development. Through these schemes, and from schemes that have not been delivered through various reasons, many lessons have been learned, and issues highlighted which, if not addressed through a well considered strategy, can potentially prove fatal. This report has reviewed many of these schemes, identified fatal and potentially fatal flaws and suggested possible strategies to be
assessed for appropriateness in the Edinburgh context as a means of overcoming them. These have been summarised in table Exec 2.
1.5 Key Recommendations

1.5.1 It is recommended that a detailed Outline Business Case will be prepared that will:

- Update the financial analysis carried out in the feasibility study.
- Take account of the more robust capital and operating costs which will be available from the route and system engineering and operating studies.
- Take account of the more robust patronage and revenue forecasts available from the updated transport economic studies. Assess which of the possible procurement routes provides best value to the Public Sector.
- Develop the evidence necessary to prove the deliverability of the scheme within the parliamentary stage.
- Take account of the procurement routes available and the funding available from:
  - Local government
  - Development gain
  - Direct/Indirect revenue

1.5.2 It is recommend that the following models are further developed as the business case is developed:

- Design, build and maintain contract with a separate operating franchise.
- PPP requiring creation of joint venture for future extensions. (Both Net and Leeds Models)

Further, in order to ensure the programme is maintained, this procurement strategy and business case development should be done in parallel to powers being sought.
1.5.3 The Council project manager should establish strategic contact with the Director of City Development, and Head of Planning to set out the scope of the project and the potential impact of the level of applications on the resources of the Planning Department during the procurement process. It is recommended that a senior planning officer is made available throughout the process but in particular to join the submission review team in order that bids that are received are deliverable in planning terms.

1.5.4 It is recommended, particularly in view of the experience of the Council in recent Transport and Education PPP projects that the Council commences the collation of the relevant documents at the beginning of the procurement process so that title issues are highlighted and their impact can be managed during procurement. The Council should also undertake a review of title at the commencement of procurement process.

1.5.5 A key action, within the early development of the scheme will be addressing the effect of the scheme on permanent traffic management. This will ensure sufficient priority is available to deliver aspirations and allow the design of the road network such that as it evolves, there will be limited effect on tram run times.

1.5.6 It is recommended a dialogue on co-operative working is entered into immediately with both the major local bus operators so that all possibilities can demonstrably have been evaluated. In any event it is recommended that operator input is included within the next stage of the project.
## EXEC Table 1: Procurement Models

<table>
<thead>
<tr>
<th>North Edinburgh Tram Objectives</th>
<th>Design Build Operate &amp; Maintain e.g. Manchester (High Capital Investment)</th>
<th>Design Build Fund Operate e.g. NET model (100% PFI)</th>
<th>Design &amp; Build e.g. LEEDS model (25% PFI)</th>
<th>Design &amp; Build e.g. South Yorkshire Tram</th>
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<tr>
<td><strong>Funding Package</strong></td>
<td>Higher Capital Investment</td>
<td>100% PFI</td>
<td>75% Capital Grant 25% local</td>
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<td>High Capital Investment</td>
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<td>Late appointment of consortium</td>
<td>Late appointment of consortium</td>
<td>Early construction appointment</td>
<td>Early appointment of consortium possible.</td>
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<td><strong>Control of outturn cost</strong></td>
<td>Medium control. More prescriptive spec. Payment less at risk</td>
<td>Medium level of control Lower specification Power of approval</td>
<td>Medium level of control Lower specification Power of approval</td>
<td>Medium level of control Lower specification Power of approval</td>
<td>Higher level of control Better specification</td>
</tr>
<tr>
<td><strong>Ensuring Quality</strong></td>
<td>High level of control More prescriptive spec</td>
<td>Medium level of control Lower specification Power of approval Payments performance linked</td>
<td>Medium level of control Lower specification Power of approval Payments performance linked</td>
<td>Medium level of control Lower specification Power of approval Payments performance linked</td>
<td>Higher level of control Higher level of specification Power of approval</td>
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<td><strong>Public Transport Integration</strong></td>
<td>Risk of competition. Scope for private sector negotiation of commercial relationships</td>
<td>Risk of competition More scope for private sector negotiation of commercial relationships</td>
<td>Risk of competition More scope for private sector negotiation of commercial relationships</td>
<td>Risk of competition More scope for private sector negotiation of commercial relationships</td>
<td>High competition</td>
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<td><strong>Public sector contribution</strong></td>
<td>Relatively High</td>
<td>Low</td>
<td>Relatively high</td>
<td>Very high</td>
<td>Full Public Sector contribution</td>
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<td><strong>Scope for private sector funding</strong></td>
<td>Scope for Developer Contribution</td>
<td>Scope for Developer contribution</td>
<td>Scope for Developer contribution</td>
<td>Scope for Developer contribution</td>
<td>Limited</td>
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<td><strong>Liability for losses</strong></td>
<td>Can write &quot;no liability&quot; into contract with questionable success. Assumes liquid market No operating subsidy</td>
<td>Can write &quot;no liability&quot; into contract with questionable success. Assumes liquid market No operating subsidy</td>
<td>Can write &quot;no liability&quot; into contract with questionable success. Assumes liquid market No operating subsidy</td>
<td>Can write &quot;no liability&quot; into contract with questionable success. Assumes liquid market No operating subsidy</td>
<td>Can write &quot;no liability&quot; into contract with questionable success. Assumes liquid market Possible operating subsidy</td>
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<tr>
<td><strong>Risk Transfer</strong></td>
<td>Risk transfer to those best</td>
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<td>Risk transfer to those best</td>
<td>Risk transfer to those best</td>
<td>Minimal risk transfer through warranty and compensation.</td>
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<td><strong>Making the difference</strong></td>
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<td>Only D&amp;B Maintenance and warranty.</td>
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<td>able to manage them</td>
<td>able to manage them</td>
<td>to manage them</td>
<td>maintenance. System risk retained</td>
<td>operating/revenue risk passed to private sector. System risk retained</td>
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## EXEC. 2

### STRATEGIC ISSUES

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<th>Suggested Strategy</th>
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<td>Sheffield Supertram</td>
<td>Early commencement of outline planning applications and land purchase pre ITN</td>
</tr>
<tr>
<td>Utilities Costs/Diversions</td>
<td>Sheffield Supertram, Croydon Tramlink, NET</td>
<td>Development of Highways Interface Document including work in proximity code</td>
</tr>
<tr>
<td>Guaranteed Runtimes/ Poor Patronage and Revenue</td>
<td>CERT, NET, Sheffield Supertram, Croydon Tramlink</td>
<td>Developing traffic management, priority, designing flexibility to minimise effect on runtimes of road network evolution</td>
</tr>
<tr>
<td>Consultation with Bus Operators</td>
<td>CERT, Strathclyde Tram, Sheffield Supertram, Croydon Tramlink</td>
<td>Full consultation with bus operator including active participation in scheme development and Highways Interface documents – Development of kiss and ride</td>
</tr>
<tr>
<td>Business Case</td>
<td>Sheffield Supertram, Strathclyde Tram, Leeds Supertram, NET, Midland Metro</td>
<td>Development of robust business case in advance of powers to demonstrate deliverability and justify funding requirements</td>
</tr>
<tr>
<td>Scheme Alignment</td>
<td>Strathclyde Tram, Sheffield Supertram</td>
<td>Initial lines must be commercially led. Social and inclusion agendas adopted for later lines when the greatest investment is in place. Initial line developed must be commercially strong</td>
</tr>
<tr>
<td>Competition Law</td>
<td>CERT, NET, Croydon Tramlink</td>
<td>Competition law legislation designed into act and contract documentation. Procurement strategy to reflect legal requirements</td>
</tr>
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2 Introduction

2.1 Background

North Edinburgh Rapid Transit was originally conceived as a linear route connecting the Waterfront Development Site with the centre of Edinburgh. Initial feasibility studies ascertained that the optimum alignment was in fact a loop, utilising the former Crewe Toll to Roseburn railway corridor.

Three alternative alignments were considered:

- An alignment from Granton Square, through the Waterfront site and then via the disused railway line to Haymarket.
- A continuation of the first on-street St Andrew’s Square.
- A North Edinburgh Loop from Granton Square to Haymarket and then St Andrew’s Square, Leith via Leith Walk to Ocean Terminal and then along the foreshore to Granton Square.

Options for the choice of technology were also considered, in particular whether or not guided bus could deliver the same benefits as rapid transit. Further information on the options considered can be found in the “Feasibility Study for North Edinburgh Rapid Transit Solution" prepared for Waterfront by Andersen, Steer Davis Gleave and Mott MacDonald.

The city council has now received funding in full from the Scottish Executive for the development of the North Edinburgh Loop, through a STAG stage 2 Analysis.
2.2 Review Objectives

Turner & Townsend Public Private Partnerships were commissioned by the City of Edinburgh Council in October 2001 to carry out a review of the project development to date, highlight issues found on other previous schemes and identify possible measures to overcome them. The key objectives of this study are:

- to review the work done to date on the North Edinburgh Rapid Transit, primarily in the form of a feasibility study prepared by Andersen, Mott Macdonald and Steer Davis Gleave.
- to consider procurement models used to develop other UK rapid transit schemes, identify their strengths and risks and applicability to the North Edinburgh Rapid Transit.
- to consider other innovative procurement strategies, identify their strengths and risks and applicability to the North Edinburgh Rapid Transit.
- to consider funding options with particular emphasis on developer contributions and their potential.
- to consider issues affecting deliverability on other projects and ways in which these can be mitigated.
- to consider the implications of competition on the operation of the system and during the procurement of subsequent extensions.

2.3 Methodology

In order to undertake this study, various sources have been used, including the extensive experience of Turner & Townsend on other UK Rapid Transit schemes and projects in other sectors, where it may be possible to transfer best practice. Current government best practice has also been considered, as have strategies used elsewhere for maximising developer contributions. In addition, study visits have been held to consider the lessons learnt on two approved projects in different states of readiness. Lessons learnt from these are incorporated into this report.
In addition consultation meetings have been held with:

- TIE Ltd (Formerly TIE – Alex MacAuley & John Saunders).
- Scottish Executive – Damien Sharp, Peter Thompson & Andrew Brown.
- Lothian Buses – Neil Renilson & Bill Campbell.
- First Group – Gordon Dewar.
- Waterfront – Andrew Russell.
- CEC – Barry Cross & Ewan Kennedy.

The key findings of these consultations are reported in the appropriate sections of this report.

In addition, the role of TTMS in the Waverley line brings experience from the first major transport project for which powers will be procured through new Scottish Parliament legislation, and also the use of development value and section 75 contributions, which will be tested in advance of the tram. QC opinion has been sought on the Waverley line project and it is expected that S.75 contributions will be applicable to public transport projects of this nature.
3 Project Objectives

3.1 Local Transport Strategy Objectives

The proposals for rapid transit are clearly in synergy with the aims and objectives of the Local Transport Strategy. These include:

- Reduce the environmental impact of transport on the city.
- Through improvements to access, facilitate regeneration of key areas of the city and thereby support the local economy.
- By facilitating access from currently deprived areas, enhance social inclusion.
- Deliver significant road safety improvements.
- Make it easier to live without a car.
- Reduce the amount of car use.
- Encourage walking, cycling and public transport use.
- Reduce the adverse impacts of travel.
- Improve the ability of people on low incomes or with mobility impairments to use the public transport network.

3.2 Future Options

North Edinburgh Rapid Transit is the most developed section of a complete rapid transit network for Edinburgh and its hinterland. The impetus for the loop to be the first line is firmly linked to the aspirations to redevelop and regenerate the Waterfront area of the city in promoting social inclusion.

The regeneration and social inclusion aspects are critical parts of the objectives. In consultation with Waterfront, they are firmly of the opinion that the tram is critical to the long term success of the Waterfront redevelopment.
The desire for an Edinburgh wide LRT network is included in the Local Transport Strategy as a long term option under the preferred strategy, i.e. the strategy that would be delivered if road user charging is successfully introduced. Under this scenario, there would be major investment in public transport. Whilst the bus would remain at the centre of the public transport strategy, LRT would also be implemented. The routes specifically mentioned in the Local Transport Strategy are links from the city centre to the New Royal Infirmary and South East Wedge, Straiton and Penicuik.

The Scottish Executive stressed the importance of the wider network for LRT if the project is to be successful and not perceived as a purely Edinburgh system. This is particularly important from the Scottish Executive’s viewpoint as much of the funding will potentially be coming from either the public purse or hypothecated revenues from road user charging. Accordingly, both of these sources will be heavily subsidised by people who live outside of the CEC boundaries. Again, if funding is to be granted for Line 1, then the proposal for the rest of the network needs to have been considered in greater detail than at present, as the benefits to those outwith Edinburgh are less obvious.

3.3 Programme

Within the PTF application a broad strategic programme was issued. This showed:

- STAG Stage 2 submission – August 2003.
- Let Contract – August 2006.
- System Operational – August 2009.

The programme proposed is relatively realistic in overall terms giving the scheme a reasonable basis against which to measure its development. While this is the case, elements within the programme require further review, particularly the time allowed for scheme procurement.
Additionally, if the scheme is to be promoted as a bill under the Scottish Parliament, this will be one of the first projects to go through this procedure and as such, may take longer as the procedures will still be under refinement. It should be noted that the Waverley Rail project is likely to be the first rail based system to go through these procedures and as such, CEC will have access to advisors with knowledge of the new procedures.

If government policy of the time dictates a PFI/PPP or hybrid solution containing some element of PFI, then the time suggested will be closer to two years to reach contract award, not the one year as suggested. There may be some scope for time savings during construction, but in terms of managing political expectations, a slightly more conservative programme will provide some flexibility for changing legislation or long negotiation periods, commonly found in major transport schemes. This should assist in establishing the scheme’s credibility in the public perception but will have to be managed carefully to avoid the public and politicians alike being frustrated.

However, with this programme or an amended programme, it is essential that the correct team and council resources, driven with strong project managers and effective decision making procedures are in place to maintain the momentum of the project given by the Public Transport Fund announcements. With strong project management, the programme will be more achievable as risks can be identified earlier and mitigated before they infringe on the critical path.

3.4 Cost

The initial STAG Stage 1 appraisal calculates a capital cost of £191.9 million for the loop. This equates to a cost of £12.22 million per kilometre. This figure does not include for developer contributions of any kind. The unit costs for Bristol and South Gloucestershire are £11.22 million per kilometre and for the Leeds Supertram Network £15.2 million per kilometre. The usual range for LRT schemes, excluding client costs and inflation, is from £10.7 million per kilometre to £12.7 million per kilometre. Therefore, the cost estimates would appear within expected range at this stage but will require continual revision as the scheme is progressed.
3.5 Quality

The standards to be met when preparing specifications, cost estimates and in support of future negotiation of undertakings are of fundamental importance in the definition and clear understanding of quality levels. These quality levels must be appropriate to the potential funding available for the project. There is a risk that interested parties including objectors, outside agencies and indeed certain public sector parties, may formulate pre-conceived ideas of unrealistically high quality levels which can be achieved through the project itself. Achievement of high quality is a key objective in the development and implementation of the project. This must however be tempered with a realistic view on affordability supported by comprehensive cost control.

The practical delivery of the project, to a defined quality level, is dependent on the identified quality issues being translated to specific design requirements as the project is developed.

The key quality perceptions of the potential patrons of the line are likely to focus around service frequency, speed, reliability, cleanliness, accessibility and ride quality.

This will be achieved through:-

- Generic compliance with performance specifications and established codes of practice.
- Achievement of best design and build quality within budget constraints.
- Development of a Design Standards Guide.
- Addressing adequately all interface issues between the designer and operator are adequately addressed.
- Compliance with Her Majesty’s Railway Inspectorate requirements and those contained in the CDM Regulations.
- Incentives to deliver quality through a performance based payment mechanism.
3.6 Promoting Group

It is assumed that the system will be promoted by either the City of Edinburgh Council or TIE. Throughout the project development, there will be various key objectives that must be met to ensure CEC receive the best system possible that meets the requirements of the business case and the council’s aspirations for a quality public transport system, these are:

- Value for money.
- Control over design development.
- Early project scope definition.
- Early outturn cost certainty.
- Single point responsibility.
- High level of competitiveness during tendering.
- Design which maximises operational flexibility.
- Maximise economic risk transfer to contractor.
- Earliest possible completion using ‘fast-track’ methods.
- Maintenance of good public image.
- Ensuring ongoing performance throughout project.

3.7 The Private Sector

From negotiations during the tender and preferred bidder stages of these projects we would highlight the following objectives of the private sector which should be borne in mind in developing the optimum strategy, still likely to excite keen interest from the private sector.

- Generation of Reasonable Profit at the earliest opportunity.
- Guarantee of Government financial support.
- Attractive debt/equity ratio if a PFI option is adopted.
Realistic patronage/revenue forecasts with sufficient sensitivity analysis to provide confidence on the level of risk associated with the forecasts (with or without competition).

Proof of the key role of the scheme in long term transport strategic planning.

Close management of interface issues.

Commercially realistic level of risk transfer.

One possible concern with regards to the interest of the private sector, is the anticipated flux of light rapid transit projects throughout the UK. Some operators may potentially be bidding for several systems, an expensive process, over a relatively short space of time, and therefore may choose to be selective with their bids.

Recent experience on the Leeds Supertram scheme suggests that due to the scale of the project and the unique risks associated with a project of this type, much concerted effort will be necessary to generate and maintain the interest and commitment of bidders and funders. NERT will be competing with other non transport projects for scarce private sector funding. Funders will support projects which give the highest return at a reasonable level of risk. Funders view LRT as high risk projects and will require comfort that these risks are assigned on an equitable basis.
4 Review of Public Transport Fund Application

4.1 Introduction
Following the appointment of Turner & Townsend, the city council received funding in full from the Scottish Executive for the development of the North Edinburgh Loop. Therefore, due to the change in status of the Public Transport Fund application, it has been agreed with CEC that it is no longer necessary to review the application in detail. However, a brief description is provided below.

4.2 The Decision
This finance will enable the scheme to be developed further, through a STAG Stage 2 analysis. Following submission of the STAG Stage 2 analysis, the Scottish Executive has reserved the right to grant no further funding if the further economic evaluation reveals that the scheme does not provide the necessary benefits. However, should it be found to be economically viable, the Scottish Executive has indicated that the funding will be made available to develop the Bill which will be required to give permission to construct and operate the system, and then to the point of procurement. Limited finance was also given for the South Suburban line to undertake further modelling of demand and patronage to again establish if either a passenger railway or shared running or LRT is viable.

4.3 The Application
The Public Transport Fund Application was prepared in accordance with the Scottish Executive Circular No: 3/2001 and, taking due cognisance of the Scottish Transport Appraisal Guidance which was still in consultation draft at the time of application. The application covered the North Edinburgh Loop, an option for reintroducing passenger trains on the South Suburban line, with a further option for converting this to light rail, enabling a city wide figure of eight loop that would serve both the south and north suburbs as well as Haymarket and Waverley. This would effectively integrate the heavy and light rail networks, making many areas of Edinburgh accessible via an integrated rail based network.
The application for the North Edinburgh section, which has subsequently been approved, was developed by a multidisciplinary team of Andersen, Mott Macdonald and Steer Davis Gleave. During the development of the application, three route options were considered with the eventual preferred route being one that utilised the former rail corridor from Crewe Toll to Roseburn.

In addition, an options appraisal exercise was undertaken that considered the various vehicle technologies available. This concluded that light rapid transit offered the most viable solution. This view has subsequently been supported by both the Scottish Executive and CEC.

4.4 The Economic Case

Following a STAG stage 1 analysis the following results were obtained:

- Economic Net Present Value: £275 million
- Benefit Cost Ratio: 2.65:1
- Internal rate of Return: 10%
- Annual Revenue: £10.26 million
- Annual Operating Margin: £4.8 million
- Capital Cost: £191.9 million

These figures represent a sound basis on which to develop the scheme further, as recognised by the Scottish Executive. We would expect these figures to alter as the proposals are developed further, but at this stage the cost benefit ratio is healthy.

4.5 Study Background

The Public Transport Fund application started life as a report to examine the feasibility of a rapid public transport link between the City Centre and Granton. The initial objective was to establish if such a link was feasible. As this proved the
case, it was further developed to form the basis of the successful Public Transport Fund application. (PTF)

The study was commissioned by Waterfront Edinburgh Limited, a joint venture between CEC and Scottish Enterprise Edinburgh and Lothian (SEEL) in collaboration with local businesses.
4.6 Key Issues

The key issues highlighted in the PTF application are:

- The PTF application clearly established that the project is acceptable and in keeping with local and national policy and objectives.
- The preferred alignment is a loop from Lower Granton Road via Haymarket and St Andrew’s Square back to Lower Granton Road.
- A depot site is required, with three sites identified which need further investigation.
- Of the options considered, LRT is likely to be environmentally the most beneficial in the longer term.
- Considerable consultation has been undertaken establishing much local support for the scheme and a belief that the scheme would deliver both social and economic benefits.
- It is recognised that developer contributions could be generated. However, these have not been included in the economic case.
- Key risks have been identified. However, it would be prudent to undertake a full risk analysis for development throughout the projects life.
- The report correctly says it is premature to select the procurement strategy at this stage, but concludes, that at present, the preferred option would be to let a contract for the design, construction, supply of vehicles and installation of the system, which would then be handed over to an operator on an operating and maintenance contract.

4.7 Conclusions

Having been accepted by the Scottish Executive, the PTF application provides a robust basis on which to develop the economic appraisal and business case as the scheme is developed in more detail. The PTF application forms a sound basis for further development work on which a STAG stage 2 assessment can be completed. In addition, it is also important to recognise that during the
preparation of the report, considerable local support has been established and expectations raised. It is important that this support is harnessed and built on.

Whilst the preferred procurement method, a design, build and maintain contract with a separate operating franchise, clearly has some advantages, it also has disadvantages and should only be considered as one of several options. These are discussed later in the report.

5 Lessons from other Schemes

5.1 Introduction

This chapter draws on our experience of other systems. For clarity it is presented in two parts;

- the first covers the generic deliverability issues we believe are of particular significance for North Edinburgh Rapid Transit.
- the second part then draws on case studies covering the key lessons learnt from other schemes.

5.2 Issues affecting Deliverability

We have reviewed the issues which can compromise deliverability of major tram and transport schemes including delays to the procurement process and how the Council could consider managing these issues within this project. Generic issues are summarised as follows. Specific issues inherent to particular projects will be expanded further in the later sub sections.

Powers & Planning

From experience of other Transport projects, planning issues have been one of the main reasons for delays to the procurement process. While delays in planning have not prevented projects being procured, particularly in the case of schemes such as this, where an Order/Bill is necessary, the issues in relation to related scope elements not covered have had an impact on potential construction start dates and in many cases have resulted in either works commencing in advance of...
contract award or the whole project being placed in jeopardy. Witness the issues associated with procuring park and ride sites related to major projects in the recent past.

To minimise planning risk for these areas and to highlight potential issues associated with procuring detailed planning permissions for works contained within any Order, it is recommended that the Council commission external consultants to prepare outline planning applications for the relevant Works having firstly reported on the requirements for the entire scheme and recommended which are included in the order. The outline planning permissions and planning guidance, in the form of a design standards guide, will highlight issues which will have to be addressed by bidders. Ideally the necessary outline planning permissions and certainly any Order will be granted prior to the commencement of the procurement so that bidders have the earliest opportunity to address planning conditions within their designs.

The Council project manager should establish strategic contact with the Director of City Development, Andrew Holmes and Head of Planning to explain the scope of the project and the potential impact of the level of applications on the resources of the Planning Department during the procurement process. While it is not the intention of the project team to interfere with the statutory planning process, regular contact with the Planning Department should be maintained throughout the planning process to identify potential problems and delay events as early as possible. It is recommended that a senior planning officer is made available throughout the process but in particular to join the submission review team in order that bids that are received are deliverable in planning terms.

It is the expectation that the bidders will submit applications for full planning permission for all the Works and may submit outline planning applications for variant bids at their own risk. The deliverability of the bidders’ proposals will be evaluated as part of the procurement process. Where highly innovative schemes are proposed the risks will be highlighted and the bidders will be expected to submit proposals regarding the impact on programme.
5.2.2 **Land, Title and related Rights**

Experience from other projects has shown that review of title and the rights within the title to land takes place towards the end of the procurement process when due diligence is undertaken by the banks and the preferred bidder. It is recommended, particularly in view of the experience of the Council in recent Transport and Education PPP projects that the Council commence the collation of the relevant documents at the beginning of the procurement process so that title issues are highlighted and their impact can be managed during procurement. The Council should also undertake a review of title at the commencement of procurement process to inform the principal terms and conditions and highlight where rights may impact on bidders’ risk profiles. While it is recognised that it is the responsibility of the bidders to assess the title deeds, it is the expectation that by providing early disclosure, issues are identified at an early stage.
5.2.3 **Interface Management**

An important lesson that has been learnt from previous schemes is the need to formalise critical interfaces with external groups, particularly those who will have an impact on a multisite basis. Key groups within this category include:

- Utilities Interfaces.
- Railtrack Interfaces (at Haymarket and with future extensions).
- Permanent/temporary/traffic management.

The lessons from South Yorkshire Supertram, where the impact of construction on city life was considerable, resulted in the development of Interface agreements with the affected groups and the setting up of interface working parties that met regularly during the planning, procurement and construction phases. The interface documents were, on later schemes, developed with the groups in advance of procurement and included as part of the tender package such that bidders based their tenders on the level of interface that had been demonstrated as being required on previous schemes. These principles were included within the tender packages for the CERT scheme. The Council are therefore well aware of the mechanism and have in their possession well developed examples. The importance of these documents will be considerably greater on tram systems as the consequences of laying on street alignment are much more severe. The Council should also be aware that private sector proposals for a Leith tram in the past came from parties who had limited experience of street running trams and included assumptions on track and impact that did not reflect good practice. The diversion of utilities apparatus is covered by the New Roads and Street Works Act 1991. The impact of this scheme on city traffic management will be severe.

5.2.4 **Future effects on run times**

A major issue on previous schemes, both in terms of delivering the benefits required and in concluding a contract with a potential operator, has been the delivery of priority on street, particularly at junctions, and maintaining that level of priority during the life of a concession. This was a significant point during the NET and CERT negotiations so the principles should be well known to Council staff.
Suffice to say that, on the South Yorkshire Supertram, poor performance on patronage and revenue was only partly due to competition, it was also due to insufficient priority at junctions.
This required the Highways department to carry out a full re-evaluation of traffic priority to further assist the system in delivering the objectives, which convinced the government to invest the sums in the construction of the scheme.

The scheme was promoted by South Yorkshire Passenger Transport Executive with the City Council formally objecting. Therefore, initially the system was not granted the level of traffic priority afforded to other systems and was therefore unable to meet the forecast patronage in its early days of operation.

A key action, therefore, within the early development of the scheme, is addressing the effect of the scheme on permanent traffic management, providing sufficient priority to deliver aspirations and designing the road network such that as it evolves, there will be limited effect on tram run times. The funding community see transport as being high risk, they will therefore require to see more and more assurance on priority as future schemes are constructed.

5.3 Strathclyde Tram

The Strathclyde Tram project failed to obtain Powers to Construct following a Public Inquiry in 1996. While the Public Inquiry associated with the former legislation was notorious for strange decisions, there were a number of issues which the North Edinburgh Rapid Transit project can learn from.

**CONSULTATION WITH BUS OPERATORS**

There was very little consultation with the incumbent bus operator, Strathclyde Transport (now First Glasgow). This contributed to poor relations and eventually resulted in an objection in principle against the scheme. This lack of consultation had a number of effects. Firstly the business case was generated without operator input which raised concerns on the commercial deliverability. Secondly keeping the bus operator at arms length meant that the business case did not include sufficiently convincing arguments on transport integration and inter-ticketing. This issue has been recognised in later projects where operators have been encouraged to join project development teams, particularly as without integration through kiss and ride the vast majority of the revenue will be extracted from existing bus revenue.
DEVELOPMENT OF THE BUSINESS CASE

Over and above the issues raised on operator input, the scheme suffered from the lack of a convincing commercial case. Development of the economic and financial appraisal was carried out late in the day when the alignment development was already in an advanced state. Happily, the study involved in preparation of NERT has gone some way to providing the confidence necessary to progress the scheme, although it is clear from the Strathclyde experience, that much effort similar to that planned for North Edinburgh Rapid Transit must be expended on proving the case prior to submitting for powers. The new Scottish Parliament legislation suggests that an inquiry will not be necessary and that the future of the scheme will be decided by a committee of MSP’s. This however does not dilute the lessons to be learned.

SCHEME ALIGNMENT

The scheme alignment eventually selected in the case of Strathclyde was not purely led by commercial need but by a combination of political requirement to act as the catalyst for development of deprived areas and decongestion in the west end of Glasgow. Park and Ride was not considered until late in the day and as a result was an add on not a strategic requirement. What is clear from other schemes is that the most expensive phase of any tram scheme is the initial phase where a depot is established and as such line one should be built around a real economic need where a positive economic and financial case can be made. Later lines are relatively easy to justify, the bulk of the base infrastructure already being in place. This left Glasgow with a difficult case to prove.

A lesson for Edinburgh is that the politicians must be convinced that in the initial stages the scheme must be built around a commercial case and that using the scheme for social reasons must follow, either when a more enlightened view is taken on transport funding, or when a base scheme is in place that can absorb a share of the costs.

5.4 Bristol Rapid Transit
The Bristol Rapid Transit has been in the development stages for over a decade. It has been hindered by the lack of a strategic authority to govern the scheme’s development. Despite this, it has recently enjoyed some solid progress in the realisation of a project board, government support and joint working arrangements with the Strategic Rail Authority and Railtrack.
FUNDING
As with Leeds and Nottingham the procurement and funding of the system has been through various stages. Originally funding was sought for the Westway project, a previous incarnation, via section 56 grant. In 1998 an Outline Business Case was submitted to the then DETR for Private Finance Initiative credits. This has now been replaced by an Annex E appraisal developed in accordance with the Guidance on the Methodology for Multi Modal Studies (GOMMMS) under the New Approach to Appraisal (NATA). GOMMMS is the English equivalent to STAG. Following this most recent evaluation, the scheme received provisional government support for its economic case and an “amber light” to proceed towards powers. It is important to gain written government support for any scheme as this will give the scheme some credibility and elevate it above many schemes in development stage.

PROCUREMENT
This original procurement route adopted for this scheme which has now been terminated was a development joint venture in which the private sector were brought on board early in the scheme’s development with the intention that private sector money could be used to develop the scheme and finance obtaining of powers. However this approach failed for various reasons. Primarily, the Treasury were never persuaded that despite the JV partner being secured through OJEC, that this represented adequate competition and would in fact, give true value for money. In addition, without written government support, the private sector were reticent to commit significant funds to scheme development pre Transport and Works Act Order application. Therefore the anticipated benefits of this approach were not realised. (However, it should be noted that Transport for London intend to adopt the same procurement model for Crossrail, it is difficult to envisage how the issues raised previously by Treasury can be overcome.)

Another significant flaw with such an early JV is that the socio-economic benefits perceived to be important by the public sector often conflict with the commercially led interests of the private sector and will not therefore be given adequate status and so not be realised. In addition should this happen, the scheme may no longer meet policy objectives.
5.5 Leeds Supertram

**FUNDING**

As on Bristol Rapid Transit the funding regime for Leeds has undergone several transitions and periods of uncertainty for the funding of light rail schemes. The system has now been granted finance with 75% of the public sector funding being supplied by central government by a combination of grant and credits. The remaining 25% public funding will come from local contributions raised by Metro and Leeds City Council.

**PROCUREMENT**

To compete for the concession on a light rail system typically costs in excess of £1 million therefore it is essential to establish market interest. Rapid transit schemes are difficult to assess in long term commercial viability compared to most PFI/PPP projects in that, the risks on a third party revenue stream are transferred to the private sector. Compared to projects in other sectors, the future demand and therefore revenue is difficult to assess. Therefore is essential to establish a robust business case. Even on a scheme such as Leeds, with funding and powers it is not expected that all the industry lead players will tender. This may become an increasing issue as the number of LRT projects increases and many of these may not be proven in commercial terms by the time it is expected to procure North Edinburgh Rapid Transit.

**URBAN DESIGN AND PLANNING CONSENTS**

The Leeds Supertram Network affects many Conservation Areas and Listed Buildings. As a result, numerous concurrent consents were sought with the powers for the system in order to ensure these permissions were granted and to mitigate the effects of the tram. An Urban Design and Landscape Guide was developed earlier in the scheme’s development to establish a benchmark design standard that a future concessionaire will be required to meet to get full planning consent for all reserved matters. In addition to this, sensitive sites (as determined by the City Council Planning Officers) detailed design briefs have also been prepared. Many of these were prepared in consultation with those directly affected and formed an essential part of the evidence at the Public Inquiries into the scheme.
Full and frank consultation was an essential part of this process. We would recommend the development of a design guide for all rapid transit systems as an essential part of scheme design and consultation. This is of particular significance for Edinburgh on Princes Street which has now established World Heritage status. The effects of World Heritage status and any additional consultations and permissions this infers, require early investigation to ensure this does not impact on the programme and seeking of parliamentary powers.

5.6 Midland Metro

This was procured via a traditional DBOM approach. However, the preferred bidder withdrew from the competition late into negotiations as the private sector realised that its investment criteria could no longer meet the system. These fears were later realised as the system is running at a significant loss. Therefore it is essential to ensure a robust business case for a project and to ensure its bankability. A further problem with this system is lack of quality and reliability as the operator has no cash incentive in the form of a performance payment.

5.7 Nottingham Express Transit

Nottingham Express Transit, as with other schemes, has witnessed various financing regimes before it was successful in its bid to become the first and probably only fully PFI transit project. It is indeed a Pathfinder Project. Due to re-evaluation on government policy, there was a 1.5 year delay after selecting the preferred bidder. This gave the private sector, in particular the financial institutions, considerable time to re-evaluate their bid adding significantly to project costs and the costs associated with closing the deal. It is therefore important that the preferred bidder stage is kept to the minimum possible to prevent cost escalation. To assist with this, it is important to ensure the scheme is fully compliant with government policy and has written support before the procurement process commences.

It should also be noted that although the local operator, (in which the City Council still has a significant stake), forms part of the successful consortium, this was achieved through open competition. Indeed the Office of Fair Trading had
scrutinised the procurement and arrangements in detail to ensure no competition issues had been breached.

5.8 South Yorkshire Supertram

Many of the issues relating to South Yorkshire Supertram have already been considered in some detail in the first part of this chapter. However, one further area where other schemes may learn is the importance of eliciting local support. It is important to achieve the support of the local press, business and local community whenever possible. Parts of the local press were very negative towards the system from early in its development which has not assisted in changing many people’s perception of a system that initially did not meet all expectations. A co-ordinated public relations and consultation programme is essential to prevent misinformation and scare-mongering whenever possible. Effective dissemination of information is important throughout the scheme development and construction to maintain some public support.

5.9 CERT

The issues surrounding the CERT scheme are well known to the Council and do not require to be set out in detail in this report. Suffice to say that for this scheme, the Business Case must be developed with an emphasis on the sensitivity of patronage and revenue to the evolving bus market. This will continue to be in a state of flux for some time and many possible combinations of sensitivity test will require to be developed. In particular the Council should not allow revenue to be so dependant on one key source within the tram scheme as was the case with the airport in CERT. As was seen, scheme viability becomes very susceptible to the changing market.

The good news on CERT is that the parliamentary process was well managed and the Council should approach this stage with confidence. It is clear however, that the form of procurement should be well considered and that properly experienced advisers should be appointed for key stages.

Other issues to be considered in greater detail following the CERT experience include:
The effect of competition law on the proposed business relationship.

- The implications of the majority shareholding in Lothian buses on any deal.
- Flexibility built into the road network to allow delivery of priority.
- Land acquisition and the necessary planning permissions in place well in advance of negotiation with potential bidders.

Many of these issues are expanded within the body of this report.

5.10 Croydon Tramlink

Croydon Tramlink has been a success, and future extensions already being considered. Whilst a difficult model to follow due to the uniqueness of the semi-regulated environment in which it operates, there are some lessons that can assist other schemes. The widespread use of the Travel Card and other forms of integrated ticketing which are well established in the London market, direct links to major interchanges and an established culture of public transport use contributed to the success of the Croydon Tramlink. It should also be noted that during construction, information was disseminated on a weekly basis and a shop opened to ensure people had the most up to date information possible. This ensured that despite difficulties during construction and commissioning public relations did not break down. This shop has remained open and is now used to supply information on the operation of the system.

6 Application of Procurement Models to Other UK Transport Systems

6.1 Introduction

The use of various procurement models, PFI, PPP, Joint Venture and other models and their level of effectiveness, in other UK Transport projects, is considered below. The effectiveness of each of these routes will be reviewed in detail with the Scottish Executive within the Outline Business Case as they will have a major say in the use of public sector funds and the achievement of optimum value for money.
Indeed, in order to protect the public investment in the scheme, it is realistic to expect some form of quality contract to be required in order to prevent predatory practice undermining the effectiveness and efficiency of the tram. Furthermore, such practices on line one, if allowed to go unchecked, could prevent the network being commercially viable, undermining both the council and Scottish Executives transport strategies. We would strongly recommend that ways to protect the tram, such as Quality Contracts, are examined early in the systems development, as greater benefits can then be guaranteed and built into the economic and business cases.

6.2 Manchester Metrolink

Design, build, operate and maintain (DBOM) – On the earlier lines, Manchester Metrolink pioneered the DBOM contract arrangements but suffered from inflexible and unimaginative design solutions, and problems over build quality. These issues are now well recognised and the DBOM contract model is now superceded by the methods discussed below for subsequent projects.

6.3 South Yorkshire Supertram

Design & Construct - Public sector developed throughout and subsequently operated through an arms-length subsidiary. Interface problems were experienced between work package contractors with no obligation for them to consider operating implications. Private sector funding was limited to minor elements of developer contribution. Failure to involve the private sector and therefore secure some degree of risk transfer, did not necessarily ensure the best return on capital to the Treasury. Now considered by government to be an unacceptable model and will not therefore be considered further for this project.
6.4 Croydon Tramlink

Project Development Group (PDG) then DBOM - Developed in response to PFI, invitations to tender were issued to private sector companies to participate in the PDG to improve bankability and commercial acceptability of scheme proposals. The contribution of the PDG came at no cost to the project during development, but were reimbursed once project sustainability was achieved. The PDG consortia was later short-listed for tendering but failed to win the competition. A particular criticism of this approach is the depth of the PDG’s involvement and their ability to influence the project’s detailed provisions in their favour. Again, the industry addressed this criticism and the Nottingham model as a result was not subject to these problems.

6.5 Nottingham Express Transit

Public/Private Sector Joint Venture & PDG then PFI. The Government approved the use of PFI, this is perhaps the most imaginative project structure to date for a transport project. The partnership between public and private sectors has been seen as a significant factor in the successful development of proposals. The joint Promoters have held equal shares in GNRT Ltd from its inception. Funds for project development were raised equally from public and private sectors and, in addition, the private sector provided high level secondees at little or no cost. Having gained powers to construct, GNRT Ltd appointed a PDG following competitive tender, the essential differences to Croydon being that the elements of risk associated with authorisation and validity were removed and that the project is set to move through full development to tender of the concession. There is no doubt that this project is perceived as being private sector driven, an approach which is evidently seen as having considerable merit by Government. Financial close has now been reached and implementation is underway.

Arrow are the successful concessionaire consisting of Carillion, Transdev and Bombardier. It should also be noted that Nottingham City Transport, the partly municipally owned bus company are also involved in the concessionaire being part owned by Transdev. This will assist in integrating the public transport system.
6.6 Leeds Supertram Network

Following an aborted DBOM procurement for the South Leeds line, the network is now being procured as a whole as a DBFO PPP project. Metro has also stated its intentions in its Rail Plan and Local Transport Plan to look at further extensions to the system, particularly into other district areas, i.e. outside the political boundaries of Leeds City Council. Its aspirations are therefore similar, in the long term to CEC’s. The main driver in developing the current procurement arrangements has been how to address the interface issues with the future extensions. Various options for this have been considered as outlined in 9.4.

The chosen procurement strategy for Leeds has been developed specifically to allow for the development of future options to the network without the need to terminate the concession currently being procured for the first three lines and in addition, to lever private sector finance into the development of the system. The appointed consortium for lines 1 to 3 would form a wholly owned company, the concessionaire, who would be awarded a DBFO contract.

A condition of the award of this contract (the Concession Agreement), would be that a further separate company would be formed between the concessionaire and Metro (West Yorkshire Passenger Transport Executive). This “Development Company” would have a majority stake from the concessionaire and probably less than 20% stake from Metro (this is to avoid the application of capital finance regulations which are much more stringent in England).

6.7 Bristol Rapid Transit

Public/Private Sector Joint Venture - Promoters appointed a preferred bidder following a competition to establish a joint public/private sector funded special purpose company to develop, seek powers for, implement, and ultimately be involved in the operation of the project. The Joint Venture model in place in Bristol has room for improvement [and, if proposed for the Waverley line, a further evolution of this model would be proposed.] This is particularly the case as there were inconsistent views from the 4 P’s (the Public Private Partnership Programme), the Treasury Task Force and Government on the Bristol strategy, resulting in this...
procurement method being formally terminated. The future procurement method has yet to be determined, but will inevitably use lessons from the strategies adopted by Leeds and Nottingham with considerable development fund coming from hypothecated revenues from road user charging, effectively forming the indicative 25% of overall capital funds that are required to be raised locally.

6.8 Edinburgh Crossrail

The Edinburgh Crossrail project has been procured through a Design, Build and Maintain relationship between City of Edinburgh Council and Railtrack for the provision of the infrastructure and for operation to be provided by Scotrail or their successors, through the existing franchise agreement. There will be no ongoing public sector subsidy, the funding being provided during the construction period from the Scottish Executive for the design, construction and maintenance of the infrastructure and provision of the rolling stock, and from SSRA during the first 3 years of operation to pump prime the operation.

6.9 Heathrow Express

In this successful model, new private branch-line railway infrastructure has been created by BAA, linking Heathrow Airport to the existing Railtrack Great Western main line from Paddington, elements of which were upgraded to accommodate the new services. Services between Paddington and Heathrow are operated by BAA subsidiary HEX, separately from other franchises and using their own rolling stock, procured and maintained by them.

No public funds were required for this obviously successful enterprise. The project development, legislative, land acquisition, procurement, design and construction, commissioning, operating and revenue risks are all borne by HEX.
7 Alternative Procurement Strategies

7.1 Introduction

On the basis of the review of procurement models for other transport schemes, there are three options previously utilised which are worthy of consideration for procurement of the North Edinburgh Rapid Transit:

- The PFI/PPP model requiring the creation of a single purpose company.
- Design, build and maintain contract with a separate operating franchise.
- PPP requiring creation of joint venture for future extensions.

These are addressed further by describing the strategies as follows:

7.2 The PFI Approach

Public private partnerships (PPPs) are increasingly common in the delivery of public services. These occur when private sector expertise and capital are used to provide services that would have traditionally have been procured by the public sector. The Private Finance Initiative (PFI) encompasses various partnership approaches including Design Build Fund and Operate (DBFO) as employed on Nottingham Express Transit (NET).

The Promoter seeks through competition, a company or consortium of companies, with which to enter into a contractual relationship for the realisation of the project. Finalising of the nature and scope of subsequent infrastructure construction, including supply and system operations contracts, is undertaken by the private sector partner within the constraints set by the Project Development Agreement and subject to an agreed level of control. Subject to compliance with Public Procurement rules, where legal advice is critical, a single stage tender process is carried out with financial competition incorporated in the form of evaluation of tenderers, business cases and technical and legal submissions.

While contractors can be procured post award, in view of the importance of the technical solution in tender evaluation, in practice, a contractor will be part of
the tender consortium, although recent competitions suggest this may be in a non equity role.

The Promoter obtains land required for the project to be leased to the consortium within the terms of the Project Agreement.
The successful bidder, following appointment will proceed to detailed design/operational determination, during which proposals are submitted to the Promoter to ensure compliance and effective integration in line with performance specifications. Following approvals, construction of the works and procurement of the rolling stock can progress under joint supervision. The completed works are deemed satisfactory, following which the commercial arrangements for commissioning and subsequent operation can be initiated. The Promoter puts in place monitoring and evaluation procedures to ensure continued compliance with contracted requirements.

The Promoter has no equity in the operating company and therefore, is not subject to risk of residual liabilities. A direct agreement is in place with financiers, allowing them the opportunity to replace the consortium if necessary, in the event of default.

The consortium will be liable for all additional costs above the bid capital costs, any ongoing maintenance and renewal costs and operating deficit.

This model is tried and tested and accepted by Treasury.

7.3 PPP DBFO

This model uses all the benefits of the above model with the added advantage that uses the private sector to assist in the development of future network extensions. It therefore harnesses the advantages of the failed Bristol model and is at the forefront of current practise in the UK.

This model has been developed specifically to allow for the development of future extensions to a network, without the need to terminate arrangements with the original concessionaire. And in addition, to lever private sector finance, knowledge and continuity into the development of a greater network. Whilst it is acknowledged that in the PTF application, a form of PPP or DBFO arrangement was not favoured because of the need to maintain flexibility for future lines, we believe this model does allow for flexibility. In addition, however a project is financed, it is unlikely that 100% public finance would be granted and we would
favour a contractual relationship whereby operating quality is ensured via a payment mechanism with penalties for poor performance.
The appointed consortium for the first line would form a wholly owned company, the concessionaire, who would be awarded a DBFO contract. A condition of the award of this contract (the Concession Agreement) would be that a further separate company would be formed between the concessionaire and CEC. This “Development Company” would have a majority stake from the concessionaire and with the remainder being owned from CEC, or possibly one of its other companies.

The members of the Development Company (i.e. CEC and the Concessionaire) would then enter into a Shareholders Agreement. This would make provision for the Development company to apply for powers to build and operate further extensions in its own name, rather than that of CEC. Following the receipt of a powers for further extensions, the Development Company would then negotiate with CEC a public sector grant funding package from both the Scottish Executive and CEC in the form of hypothecated revenues for the new extensions. In addition, the Development Company would seek other finance including developer gain. They would also be responsible for procuring contracts for construction, installation and any additional vehicles required for the new extensions, by open tender. These would be tendered on the open market and would therefore be open to the original consortium, as well as new suppliers, ensuring value for money.

The main issue is around the letting of the operating and maintenance (O&M) contract. There are two options, the first is to extend the original agreement to include the new extensions. It is believed this can be done in compliance with EU and UK Procurement regulations, providing the original O&M contract allows for operating additional lines. However, to ensure value for money, it may be preferable to go through a new tendering process, with the continuity of operation being managed at the Concessionaire level rather than guaranteeing the original operator will remain. It is this issue that requires further investigation and the preferred option may be dictated by the response of the incumbent bus operators to the tram scheme and any Quality Contract or agreed strategy that is in operation at the time when future extensions are ready for procurement.
Whilst it will be necessary, in the event the parties cannot agree on future actions, to devise a way in which the agreements can be terminated if this method succeeds, it will mean:

- The experience of procuring the first line from both the public and private sector can be drawn on for future extensions.
- There will be a degree of integration and management through extension procurement, construction and operation.
- It allows a decision on future operating arrangements to be left open and, whilst it doesn’t guarantee the operator will remain the same, it clearly provides an incentive for both existing and potential operators to act in the interest of the wider public transport market.
- There is potential to reduce costs of procuring future extensions on the public purse.

It should be noted that, although this has been developed for implementation on the Leeds Supertram Network, it has not been used in practise. Therefore, we would recommend the experience on this project is closely monitored before this option is chosen definitively.

7.4 Design, Build and maintain with a separate operating franchise.

This is the model recommended in the Public Transport Fund Application. Under this model, the scheme is procured by letting a contract for the design, construction and installation of the system including vehicle supply. Once complete, the system would then be let to an operator under a separate operating and maintenance contract for a franchise of between 7 and 10 years. This would be done competitively, with the successful operator being the one who demonstrated the best package of service quality and franchise value. They would be reimbursed, either by an annual share of the revenue or capital sum.

Whilst this model had clear benefits in the flexibility in terms of letting contracts for future extensions, in that a shorter term franchise can more easily be terminated than a 30 year concession, there are other ways of achieving this objective.
This model does warrant further investigation, but clearly raises many interface issues during the final design and construction stages of the project. Lack of risk transfer is an issue under this model. If an operator is an integral part of the concessionaire, then these will not arise in the same way. For example, if an issue arises during operation that is due to either a lack of flexibility having been designed into the system or vehicles requiring additional maintenance due to system design, there will be the issue of who takes the risk and eventual cost of rectification should it be necessary. Under DBFO, these risks are transferred to the concessionaire. However, under this model it is uncertain that they can be transferred unless at significant cost. Alternatively, they would be retained by the public sector, neither of which is desirable. These interface issues are key to whether or not this approach can be made to work satisfactorily. It is essential that there is operator input in the final design and construction of the scheme.
7.5 Summary

All these models have benefits. However, the DBFO model, tries to harness the benefits of both. It builds on an accepted model, with the reassurance this will bring to private sector bidders, together with addressing issues relating to future extensions upfront. Despite this, it still retains flexibility in how the operator of the future extensions will be procured. This is a new approach and yet to receive acceptance or be tested. Therefore, whilst this appears to offer the best solution, it would be premature to develop only one option at this stage, a view supported by the Scottish Executive. Therefore we would recommend that both the later two models are further developed as the business case is developed. Furthermore, in order to ensure the programme is maintained, this procurement strategy and business case development should be done in parallel to powers being sought.
8 Appropriateness of Procurement Strategy Options

8.1 Introduction

The selection of the project procurement strategy from the options set out in 7.0, which best serves the needs and aspirations of North Edinburgh Rapid Transit will be assessed in detail. We have reviewed in preliminary form, key project objectives and assessed the relative performance of the alternative strategies.

The objectives considered are:
- Programme.
- Control of Outturn Cost.
- Quality.
- Public Transport Integration.
- Minimise Public Sector Contribution.
- Scope for Private Sector Funding.
- Liability for Losses.

The performance of each strategy is summarised in figure 1.

We would address these objectives as follows:

8.2 Programme

Whichever procurement route is selected, considerable public sector finance will be required. Therefore, there will not be a noticeable difference in timescale on the PFI options considered due to the requirements of OJEC, the acquisition of powers and subsequent tender evaluation and negotiation. DBM will however allow a much simpler procurement process with an earlier start on site.

*DBM will perform best in terms of programme delivery.*
8.3 Control of Outturn Cost

In the PFI route, the control of outturn cost and the constructed scope will be greater in that there will be power of control and regulatory mechanisms built into the project agreement. Neither route will give the same assurance as the DBM routes, where a far greater degree of specification is inherent, giving much less scope for escalation and a greater degree of control of the design process.

*DMB will give the greatest level of control on outturn costs.*

8.4 Quality

To protect the public sector investment in the project and to ensure the quality of initial provision and the ongoing quality of operation, regulation of the provider is necessary, with remedies available to the Promoting body in the event that it is not delivered. The contractual relationship within the Project Agreement servicing the DBM will be more conventional with performance criteria set and monitored, the Promoter itself acting as regulator. Similarly, the detailed performance criteria set out in the PFI type output specification documentation will give a degree of control over quality. *DBM however does not transfer the interface risk with the operator.*

*PFI/DBFO perform marginally better in this respect.*

8.5 Public Transport Integration

It is in the interests of all parties, that the Group does not preclude the private sector from actively seeking commercial relationships with operators, including the predominant local bus operator who should be encouraged to participate in the project. Clearly, the co-operation of the predominant local bus operator, whether by stakeholding or other means, is desirable to maximise transport integration opportunities within the conurbation, and, in the worst scenario, avoid a public transport war arising between the existing bus operators and a competing team operator.
This approach cannot, however, be imposed due to the constraints of EU procurement rules, and in certain cases the operator took the view that its best interests would be served by remaining outside potential consortia during the competition, with the intention of joining the successful consortium at a later date if the terms were right.

With respect to all models, CEC must not preclude the development of close links with the resulting operator who will be seeking to maximise the financial performance of the scheme.

In the DBM relationship, there is limited scope for commercial relationships with other modes as although there will be few links with the constructor, partly due to the lesser incentive to maximise the opportunity and partly due to the different types of consortia attracted by the DBM route.

The PPP and PFI model are less restrictive to commercial innovation, the private sector partner having much more scope to negotiate mutually beneficial commercial agreements with other operators. Aspects of mutual benefit including interchange opportunities. For example there could be a possible for potential option of a bus feeder operation attached to the system.

Integration of other transport forms with the tram operation would create opportunities for ‘through ticketing’ systems. The participation of transport operators in such systems has to be encouraged to maximise the overall transportation benefits and to create an effective public perception of an integrated transport system. Ideally, this should done by agreement but the option of using Quality Partnerships or Contracts to achieve this should not be dismissed.

_PFI/DBFO perform better in this respect._

### 8.6 Minimise Public Sector Contribution

The viability of the project will largely be dependent on the funding available from central government, from where the bulk of the funding will come.
In any negotiation on the extent of private sector funding necessary to realise the project, the extent of public sector funding available will inevitably have to be revealed. It should be recognised that the greater that public sector element, the better the terms of the deal, in extent or in specification, which might be struck with the private sector. There will still need to be significant pre-work sector investment. To that extent, less emphasis will be placed on the nature of the eventual contractual relationship in achieving minimum public sector contribution, rather it would be the competition itself, if properly structured, which would drive down the extent of public sector funds necessary.

The matter of providing a Developer contribution, if combined within the scheme, is a more significant issue. If, however, the Promoter is seeking to avoid accepting any liability for losses, only to obtain developer contribution, it is likely that there will be a premium to pay in return for that security. The level of Developer contribution on the balance of the risk specified, will be an important element in the evaluation of tender submission.
The DBB, PFI and PPP and DBFO routes will provide the opportunity to generate developer gain. The concept of separating Developer gain from the procurement process is considered further in section 8. This is the preferred approach as it is unlikely that development gain would be substantial enough to justify a developer led DBM and hence its omission from consideration here.

The Area where the route choice differs greatly is in the level of milestone payments as opposed to unitary charge. The milestone payments are minimised in PFI and maximised in DBM.

The call on the public purse is minimised in PPP.

8.7 Liability for Losses

Whichever option is chosen, the operator will be expected to take the revenue risk, so there is no requirement for an on going subsidy. However with the DBM route, this will be more difficult, particularly if interface issues are not adequately addressed.

DBFO/PFI will perform better.

8.8 Further Analysis

The possible procurement routes will be addressed in greater detail in developing the Business Case in the prepowers stage as part of the preparations of the public sector funding application. In doing so, the factors referred to in this section will be addressed in greater detail as will the value for money of each route in terms of minimising the call on public funds. It is essential that the development of the procurement route and scheme funding progress in tandem with progress of the order as these aspects will be crucial in terms of proving deliverability and will be seen as a key area of justification to give inquiry commissioners the confidence to recommend the award of powers.
**Table 1: Procurement Models**

<table>
<thead>
<tr>
<th>North Edinburgh Tram Objectives</th>
<th>Design Build Fund Operate e.g. NET</th>
<th>Design &amp; Build, Supertram e.g. LEEDS</th>
<th>Design Build Fund Operate e.g. NET</th>
<th>Design Build, Maintain with separate franchise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding Package</td>
<td>100% PFI</td>
<td>100% Capital Grant</td>
<td>Late appointment of consortium</td>
<td>To be determined</td>
</tr>
<tr>
<td>Consortium Appointment</td>
<td>Late appointment of consortium</td>
<td>No consortium. Early Construction Start</td>
<td>Medium level of control</td>
<td>Early appointment of consortium</td>
</tr>
<tr>
<td>Control of outturn cost</td>
<td>Medium level of control</td>
<td>Higher level of control</td>
<td>Higher level of control</td>
<td>High level of control</td>
</tr>
<tr>
<td></td>
<td>Lower specification</td>
<td>Power of approval</td>
<td>Power of approval</td>
<td>Better level specification</td>
</tr>
<tr>
<td>Ensuring Quality</td>
<td>Medium level of control</td>
<td>Higher level of control</td>
<td>Medium level of control</td>
<td>High of control</td>
</tr>
<tr>
<td></td>
<td>Lower specification</td>
<td>Power of approval</td>
<td>Lower specification</td>
<td>Better specification</td>
</tr>
<tr>
<td></td>
<td>Power of approval</td>
<td>Payments performance linked</td>
<td>Power of approval</td>
<td>Risk of competition</td>
</tr>
<tr>
<td>Public Transport Integration</td>
<td>Risk of competition</td>
<td>High competition</td>
<td>Risk of competition</td>
<td>Less scope for private sector negotiation</td>
</tr>
<tr>
<td></td>
<td>More scope for private sector</td>
<td></td>
<td>More scope for private sector</td>
<td>commercial relationships</td>
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<td></td>
<td>negotiation commercial</td>
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<td>negotiation commercial</td>
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<tr>
<td></td>
<td>relationships</td>
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<td>relationships</td>
<td></td>
</tr>
<tr>
<td>Minimum public sector</td>
<td>Low initial contributor</td>
<td>Very high initial contributor</td>
<td>Relatively high initial contributor</td>
<td>Full Public Sector contribution</td>
</tr>
<tr>
<td>contribution</td>
<td>Scope for Developer contribution</td>
<td>Limited</td>
<td>Scope for Developer contribution</td>
<td></td>
</tr>
<tr>
<td>funding</td>
<td>Limited</td>
<td></td>
<td>Less scope for Developer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scope for Developer contribution</td>
<td></td>
<td>contribution</td>
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</tr>
<tr>
<td></td>
<td>Assumes liquid market No operating subsidy</td>
<td>Assumes liquid market No operating subsidy</td>
<td>Assumes liquid market No operating subsidy</td>
<td>Assumes liquid market No operating subsidy</td>
</tr>
<tr>
<td>Transfer</td>
<td>Risk transfer to those best able to manage them i.e., operating/review risk with operator</td>
<td>Minimal risk transfer through warranty and maintenance</td>
<td>Risk transfer to those best able to manage them i.e., operating/review risk with operator</td>
<td>Only D&amp;B and operating/revenue risk passed to private sector, even this is questionable</td>
</tr>
</tbody>
</table>
9 Funding Options

9.1 Public Sector Funding

It is anticipated that a significant proportion of the funding necessary for the scheme will come from Central government, whether from Public Transport Funding, Level Playing Field Funding/PFi Credits, or other forms of funding. It is recommended that a detailed Outline Business Case will be prepared that will:

- Update the financial analysis carried out in the feasibility study.
- Take account of the more robust capital and operating costs which will be available from the route and system engineering and operating studies.
- Take account of the more robust patronage and revenue forecasts available from the updated transport economic studies. Assess which of the possible procurement routes provides best value to the Public Sector.
- Develop the evidence necessary to prove the deliverability of the scheme within a public inquiry.
- Take account of the procurement routes available and the funding available from:
  - Local government
  - Development gain
  - Direct/Indirect revenue

CEC can support the Development and Implementation process through mobilising internal resources to ensure the project reaches fruition.

This input can include:

- mobilisation of transport resources to assist in the development of the tender documentation, servicing the needs of the procurement process and monitoring the construction and operation of the scheme.
mobilisation of internal legal resources to service the needs of the procurement process, assist in drafting contracts, negotiating final terms with a preferred bidder and assembling deeds and services necessary to allow the scheme to be constructed.

mobilisation of internal financial support necessary to develop the project agreement, and monitor the financial well being of the project.

mobilisation of internal property support necessary to assist in the land acquisition and land valuation process.

mobilisation of internal planning support to take the scheme through the detailed planning process.

In addition to the major source of funding that will be provided both by CEC through contributions in kind, road user charging and the Scottish Executive through the Public Transport Fund, there are a raft of other public sector funds. In the main, these funding opportunities are concentrated on specific economic, physical and environmental regeneration. However, there is already substantial pressure on these funds and many will be allocated to specific elements. Notwithstanding the competition for such funds, it is likely that should a new public transport service be provided for North Edinburgh, there will be considerable environmental improvements undertaken throughout the chosen route.

Scottish Enterprise Edinburgh and the Lothians provide funding for regeneration projects, as do the Social Inclusion Partnerships (SIPs). SIPs are partnerships of local agencies working together to help improve the quality of life for a community. They focus on the most needy members of society; they co-ordinate and fill gaps between existing programmes to promote inclusion; and they seek to prevent people from becoming socially excluded. SIPs have a particular emphasis on seeking to prevent young people, and others, from becoming excluded from participation in the economic and social mainstream. Edinburgh Strategic Programme and North Edinburgh Area Renewal can provide advice and information on possible funding opportunities for any regeneration aspects of the North Edinburgh Rapid Transit proposals.
Alternatively, CEC could consider setting up a specific SIP for transport initiatives if the benefits to the community are tangible and such funding can be accessed for transportation projects. However, it should be possible to demonstrate that this project will create considerable opportunities for residents in north Edinburgh, particularly for increased mainstream social and economic access (further discussions are required with the Scottish Executive to clarify this). In addition, the Andersen study EALI assessment indicates that as many as 11,200 jobs could be generated should the project go ahead.
9.2 Road User Charging (RUC)

Essentially the RUC scheme is a means of charging those who use the roads within the City of Edinburgh and contribute to congestion levels, pollution and to maintenance requirements. Many of these road users do not live within the boundary of Edinburgh and currently have little option than to use private transport. The RUC scheme will charge users for entering Edinburgh and this charge will then be used to improve the public transport provision in the City to offer greater choice to residents and commuters alike.

The RUC scheme is regarded as a means of increasing the investment in achieving the objectives of the Local Transport Strategy for Edinburgh. Funding obtained from RUC can be then invested in two ways: to fund the development of major public transport infrastructure; and to support the on-going operation of the system if required. It will be essential for the Council to ensure that sufficient public transport choice is available prior to the RUC scheme being introduced and considerable commitment to the NERT system will be a critical in the success of RUC in Edinburgh.

The draft Integrated Transport Initiative for Edinburgh and South-East Scotland indicates that the transport improvements outlined in the Local transport Strategy can be funded through a combination of RUC receipts and public sector contributions. The flexibility of TIE Ltd to manage and direct the utilisation of funds for transportation projects will be essential in the future viability of projects, particularly in early years, when other forms of income are developing.

9.3 Developer Contributions

It has long been appreciated that building new roads generates investment and development. Whether it is the M8 corridor in Scotland or the M4 corridor in England, major transport routes lead to the dispersal of development and economic growth. After years of under investment in the railway network and public transport, Governments both north and south of the border have recently given their support to new rail systems and light rapid transit (LRT) proposals. This is largely as a consequence of realising that railways too can bring the investment
benefits brought by roads, whilst at the same time being more environmentally acceptable. North of the border, the publication by the Scottish Executive, of its consultation paper ‘Strategic Priorities for Scotland’s Passenger Railways’ in November 2000 gave real impetus to the process of looking at how services could be improved in Scotland and where funding should be directed.

In respect of LRT, schemes have been mooted in various cities. Of these, Manchester has the most advanced system and perhaps demonstrates the benefits that such a system can have.

The first stage of what is known as the Metrolink in Manchester was opened between April and June 1992 after 9 years in the planning stage. The original line followed a north-south axis from Bury in the north to Altrincham in the south via the city centre; a spur to Eccles followed this. It is now proposed to extend the Metrolink to Manchester Airport, Ashton-under-Lyne and Rochdale via Oldham and with possible private finance to link it to Trafford Park.

In addition to the direct and indirect economic benefits that urban rapid transit systems can generate, research has identified that the Jubilee Line Extension (JLE) has resulted in dramatic increase in land values. It is estimated that property within a 1 kilometre radius of the JLE stations has risen in value by £13bn.

There are two potential sources of developer contributions. Firstly, the traditional mechanism that utilises the powers of the Town and Country Planning (Scotland) Act 1997 S.75 that allows for councils to request that developers provide a financial contribution to ensure that new developments do not create additional infrastructure pressures. This mechanism is used to fund new schools, drainage and water system improvements and road improvements. It can also be used to fund public transport improvements.

CEC are currently negotiating a number of S.75 planning agreements with land owners and developers in the Granton and Leith areas. This mechanism has already been successfully utilised in funding improved public transportation services to ease access to the recently opened Ocean Liner Terminal. This
mechanism can be used to fund both the physical infrastructure works or can be fed in to the operation of the public transport service.

Whilst there are ample opportunities to access funds through the S.75 mechanism, there are other means of ensuring that the value uplift of land and property is beneficial to CEC.

The second mechanism is essentially a role for the council in obtaining land and property at the price without improved public transport access, and selling the land on once the North Edinburgh Rapid Transit service is operating, for an increased price. The process in respect of this mechanism is broadly outlined below.
Proposals from one company, E-rail, in relation to opening the South Suburban rail loop, have suggested that the value of developing land/property can fund the infrastructure works and operation of a rail based transport system. However, this proposal has relied heavily on CEC contributing land and ensuring that appropriate planning permission is obtained on that land. Whilst in principle, this approach has considerable merit, the reliance on the planning constraints being removed results in an unreliable mechanism. By taking that approach and developing the mechanism within CEC, the opportunities are wholly within the control of CEC as opposed to relying on a private sector developer diverting profits from to shareholders.

To compliment the s75 proposals for capturing development gain, or instead of them (if they are deemed not to be appropriate) the council may wish to consider forming a new wholly owned subsidiary company (Propco) or utilising an existing company such as EDI Ltd. Propco would operate under the following broad principles:

1. The Council would form Propco.
2. Propco would identify likely residential/commercial development opportunities that would benefit as a result of the North Edinburgh Rapid Transit service.
3. Propco would determine the amount of development gain which would be capable of being released, principally the difference between the open market value of the potential development sites without the improved service and the (higher) open market value of the development sites with the North Edinburgh Rapid Transit service in place.
4. Propco and CEC planning department would agree on a master plan/local plan allocation for the additional development opportunities resulting from the provision of the North Edinburgh Rapid Transit service.
5. Propco would purchase options, entitling them to buy proposed development sites from owners at today’s open market value (i.e. at the
lower value before the effect of the improved service is taken into account) or appropriate CEC owned sites would be transferred into the ownership of Propco.

6 Once the North Edinburgh Rapid Transit project is approved, Propco would exercise these options and purchase the development sites at the agreed price.

7 Propco would sell these development sites to developers at the higher open market value (with the benefit of the North Edinburgh Rapid Transit service provision) with the benefit of outline planning approval and/or an allocation in the local plan. The sale price of individual development areas would reflect the obligation to enter into s75 agreements if that policy were approved. When dealing with Propco, the Council as Planning Authority would not give it any special treatment of favour. It would treat Propco in the same way as it would treat any other commercial developer.

8 The profit made by Propco, the difference between buying land at the lower value and selling it at the higher value would be transferred to TIE as the body responsible for managing procurement of the North Edinburgh Rapid Transit system.

9 Once all the individual development sites identified under the approved master and acquired by Propco were sold, then Propco would be wound up.

It is important that Propco has sufficient resources, willingness to deliver and experience of property and land acquisition and sale. Propco will potentially be investing significant amounts of money purchasing options which is at risk should the project not proceed for any reason. Therefore it is critical that the most appropriate land is identified at an early stage.

The Andersen study has assumed no developer contributions will be allocated to the North Edinburgh Rapid Transit project. It is recommended that a policy is
advanced to allow CEC to capture gain from development proposals that can benefit from the North Edinburgh Rapid Transit project. Once the policy is decided upon, identification and assessment of those sites that are already put forward and likely sites that may come forward can be carried out. Thereafter an estimation of total funds available to contribute to the development and operation of the North Edinburgh Rapid Transit service can be undertaken.

However, it is clear that many of the more developable sites are already in the control of leading developers. It is therefore anticipated that a combination of Section 75 funding and Capturing Development Gain will be necessary to maximise the deliverability of the scheme.
9.4 Private Sector Participation

Within the review of procurement strategies in the market place and the interest shown by the private sector in the development of this Public Transport Funding Application, there is real scope for private sector involvement in the period of scheme development prior to obtaining powers to construct.

The means developed in major transport projects elsewhere in the UK has been to give interested consortia, or operators the opportunity to contribute operational experience, at no cost to the public sector, into the scheme, assisting in the development of a scheme that bidders would find credible in return for knowledge of the scheme development at that stage.

In practice, CEC would advertise through OJEC for a private sector organisation to assist in scheme development, the winning bid being the organisation who bids the highest value scope for scheme development.

From previous projects the tasks normally carried out through this mechanism would include:

- Review and confirmation of the capital cost basis for the scheme.
- Review and confirmation of the operating cost basis for the scheme.
- Confirmation of the basis of the timetable, journey times.
- Confirmation of the acceptability of the proposed procurement route and the proposed relationship.
- Assessment of the likely funding contribution that may be generated through developer contributions associated with implementation of the line.

This mechanism has been used successfully in transport projects in the UK and has resulted in enhanced credibility for the project and the development deliverables and development cost savings to the public sector. The return to the private sector is the knowledge of the scheme which will assist him in bidding in later stages of the project.
9.5 Separation of Developer Gain

The Council must decide at an early stage whether it wishes to separate the capture of the development gain from the provision of the overall procurement of the North Edinburgh Rapid Transit service. Whilst the above process concentrates purely on a CEC operating company, it could work equally with a joint venture partner.

**Option 1** is to include the capture of the development gain with the provision of the service itself. Under this option the Council will tender and appoint a consortium to construct and operate the North Edinburgh Rapid Transit service. Part of this consortium's responsibilities, under this option would be to enter into a JV arrangement as outlined for Propco above, for the capture of the development gain. While this would expose the process to competition and (hopefully) produce the largest share of the development gain to the project, the timescales involved in the tendering exercise and the market exposure it would generate, would incur a significant risk that independent third parties would start to purchase options on potential development sites, thus removing the possibility to capture any development gain in those areas.

**Option 2** is to form Propco as soon as possible and to agree the operating principles at the earliest opportunity. This would allow Propco to start identifying development opportunities and purchasing options at an early stage, which would maximise the amount of development gain which can be captured.

In order to capture the maximum amount of development gain it is considered that option 2 should be followed and the Council should seek to set up Propco at the earliest opportunity.

9.6 The ‘Sullum Voe’ model

The background to this model lays in the inclusion of planning agreement making powers in the transport bill (The Shetland Act) related to the Sullum Voe oil project. As part of the order, the development of an oil terminal on Shetland allowed the local authority to negotiate a wide range of social and physical infrastructure to be provided by the oil company as part of any development.
relating to or benefiting from the oil project. Under normal Section 75 agreements much of the agreed works would have been ultra vires the planning act.

It may be possible for CEC to amplify the scope of the parliamentary bill to include wider ‘agreement making’ powers of a Section 75 agreement. This would remove the restrictions of the Town Planning Act of 1997 whereby a Section 75 agreement requires a demonstrable link between the proposed development and the reason for entering into an agreement. A link to the tram system would still be required but it could be a geographical link as opposed to a causal link.

On previous projects, QC opinion was sought and the conclusion was that there is merit on large infrastructure projects for a derivative of the ‘Shetland Act’ to be considered further. QC recommended that this mechanism had considerable merit as it widened the agreement making powers, under Section 75, of the local authority and could be relatively simply included in the transport bill.
10 Scheme Specific Issues

10.1 Introduction

Before CEC can establish with absolute certainty that the proposals from the north Edinburgh Loop are economically viable without some form of on going subsidy, then there is a need to undertake more detailed feasibility work in line with a STAG 2 appraisal. It is the conclusion of this study that also marks a possible cut off point in funding should the economic case not be satisfactory to the Scottish Executive. The work done to date is in keeping and possibly beyond that which would be expected from a scheme at STAG stage 1. It has also firmly established light rapid transit as the preferred mode, although it would be reasonable to expect further sensitivities to be done on other modes, once a more detailed demand model is built.

10.2 Operator Input

Clearly, operator input is highly desirable, if not essential, into the design of the system. To date this has been done in the form of a ‘reality check’ in the work on the Public Transport Fund application by Lothian Buses.

An operator involvement is welcomed. However, for the next stage we would strongly recommend, that for reasons of transparency and competition, this role is in fact tendered and the successful operator recompensed. All work done by the successful operator must be clearly logged in order for all the eventual bidding consortium to have access to the same information.

As part of this study both Lothian Buses and First Group were consulted. Both felt it was essential that an operator was involved throughout the development and design phase to ensure the optimal design in operation terms and therefore, patronage terms were put forward for parliamentary approval. Both recognised the need for this process to be linked purely to the development phase, in recognition that the system would eventually be procured via the Official Journal of the European Union. They also recognised that if they were to become the
eventual operator of the system, this right would have to have been won in open competition.

10.3 Competition Law

There are three areas relating to the procurement and operation of the system that requires consideration of Competition Law.

10.3.1 Competition During Operation

The most significant area where competition may infringe on the effective operation of a rapid transit system is during operation. By virtue of its fixed alignment, a system it may be vulnerable to predatory behaviour from other public transport operators, either directly on the same corridor or on parallel corridors. This issue is common where the incumbent public transport operator is not successful in their bid to operate the tram system and was one of the contributory factors in the failure of South Yorkshire Supertram to meet its forecast patronage. Such behaviour can take many forms, from physically preventing the tram operating efficiently to consistently undercutting prices to such a level that the tram will not be able to compete on price.

There are various measures that can help to prevent this, the first being consultation with all operators throughout the process and agreement to a city wide transport strategy covering all modes. It should be recognised, that even on tram routes, the buses have a crucial role to play, both as feeder services but also serving the interim bus stops that will still be necessary between the wider spaced tram stops.

Depending on the level of co-operation of the bus operators, it may be possible and clearly desirable to design joint priorities or priorities that benefit the tram alone. It is important to protect the public sector investment that will be required to be input into the scheme. This is the approach that is being adopted on the Leeds Supertram Network.

The use of Quality Contracts as detailed in the Transport (Scotland) Act 2001, to semi regulate the operating environment should also be considered. However,
these would have to meet strict tests and be approved by Scottish Ministers. CEC would have to be satisfied that:

- Making the scheme is necessary for the purpose of implementing their relevant general policies in the area to which the proposed scheme relates;
- The proposed scheme will implement the policies in a way which is economic, efficient and effective.
However it should be noted that, although Quality Contracts were introduced in England a year earlier, none have been introduced, and the possibility and effectiveness of these to effectively protect one mode from another has yet to tested. Before this approach can be given serious consideration, specialist legal public transport advice needs to sought. It is also essential that the Office of Fair Trading is convinced that competition rules are not contravened.

Before a Quality Contract can be considered, CEC must be able to demonstrate that other options have been considered and there is a reasoned argument for their introduction. Where the objectives of a Quality Contract can be achieved through co-operation, this is considered favourable to legislative enforcement.

A Quality Contract will require approval by Scottish Ministers and each scheme will be assessed on its own merits and must be in the public interest. Although the integration of a tram system with other modes is an example quoted in the accompanying guidance to the bill, it is also stressed that while this is a circumstance when a Quality Contract might be appropriate i.e. does not pre-empt a Ministerial decision. All appropriate alternative actions must also have been considered.

We would strongly recommend that a dialogue on co-operative working is entered into immediately with both the major local bus operators so that all possibilities can demonstrably have been evaluated in the event a Quality Contract is perceived to be the only way in which a tram can be successfully introduced. The Scottish Executive have expressed their desire to be consulted on this, particularly if they will be expected to invest public money in the tram system. Whilst it is not the intention to restrict fair competition, it must be remembered that the tram system is a long term investment and not flexible to short term changes in the market that could lead to anti competitive pricing or to obstruction of the actual tramway. Furthermore, specialist legal advice on public transport and competition should be sought as to the extent to which a Quality Contract could be used to protect this system. In addition, the use of the Office of Fair Trading to prevent suspected monopolistic behaviour should also be considered. The system will be more bankable should these issues be resolved prior to procurement.
10.3.2 Competition During Procurement

The second area where competition rules must be complied with and simplest to address in many ways, is that the system must be procured via open and fair means under European Procurement rules via OJEC. This must include the operation of the system, whether as part of a wider concession package or as an individual contract.

10.3.3 Competition Issues on Future Extensions

The final area relates to looking at options for developing the network beyond the initial line 1. This effectively means that if line 1 is procured as an individual entity, then future extensions must go through the same procurement process and therefore, the operator of line 1 will not be guaranteed the operation of future network extension. There are differing procurement models both in existence and being developed that deal with this issue.

These are:

- To award a separate concession for any extensions for the design, construction, finance and operation, with the original concessionaire operating line 1, with agreed use of shared facilities. This was considered for NET, but not being pursued.
- To terminate the original concession, compensate, and award the new network through a new competition, as has been done on Metrolink.
- To provide for new extensions under the terms of the original concession agreement. This can only really work if plans are advanced for future extensions at contract close on line 1.
- To form a joint venture with the line 1 concessionaire who would be responsible for design, build, finance and operation of line 1 and additionally, for obtaining powers and finance for future extensions. The construction contracts would be sub let, but this would potentially allow the concessionaire, including the operator to remain place.
This latter option is currently being developed for the Leeds Supertram Network, and for NET. Leeds will include this provision within the tender documentation whereas NET is negotiating this provision post financial close.

10.4 The Local Government Bill

The Scottish Executive propose to introduce a new Local Government Bill to Parliament in the spring of 2002. It is anticipated and indeed, appears that the intention of this bill, is to widen the powers of local authorities to, *inter alia*, ‘promote and improve the wellbeing of their area’. the Bill intends to change the rules on the restrictions imposed on local authorities to carry out commercial activity to meet the above aim. The bill will also amend the current restrictions on the capital expenditure controls (Section 94) to provide local authorities with more flexibility.

In practice, the changes are intended to allow local authorities to enter into partnership or joint ventures where the well being of the area or persons living in that area are being promoted or improved.
Specifically, the intention of the Scottish Executive is that the Bill will allow local authorities to:

- incur expenditure;
- give financial assistance to any person;
- enter into arrangements or agreements with any person;
- co-operate with or facilitate or co-ordinate the activities of any person;
- exercise on behalf of any person, any functions of that person; and
- provide staff, goods, services or accommodation to any person.

The Bill will also include provisions for the Scottish Executive to repeal existing restrictions, prohibitions and limitations that could prevent local authorities using the power of well being. At present, the Scottish Executive intend to repeal only section 83 (power of local authorities to incur expenditure) and section 171A (promotion by local authorities of economic development in its area). The former is at odds with the new Bill and the latter will be made redundant by the broader powers in the new Bill.

The new Bill also introduces a statutory duty on local authorities to demonstrate ‘Best Value’. This requirement will undoubtedly impact on the provision of services where there is a competitive element, as there will be a need to demonstrate that the service is delivered in a manner that provides the most beneficial balance between quality and cost.

With regard to the NERT project, this Bill will have some impact, as it will allow CEC greater freedom. However, the powers held by TIE can provide this. The new Bill effectively allow CEC to carry out the majority of the duties of TIE Ltd and other CEC wholly owned subsidiaries without the need to set up these companies, thus simplifying the process.
10.5 TIE Ltd

TIE Ltd is a company formed by the City of Edinburgh Council and a wholly owned subsidiary of the Council. The purpose of TIE is to act on behalf of the Council to "promote, support and/or effect the development, procurement and implementation of projects defined or referred to in an integrated transport strategy as determined and varied from time to time by the City of Edinburgh Council" (Memorandum of Association of TIE Limited). In addition, TIE is able to carry on or promote or develop trade or business connected to transport required in connection to the integrated transport strategy. Of particular relevance is the specific objective to establish and manage a road user charging scheme (RUC).

With regard to the North Edinburgh Rapid Transit (NER T), the ability of TIE to enter into joint venture partnerships, to purchase or dispose of land and property, to borrow or lend money and to carry out trade or professional business is important. Such rights provide the flexibility for TIE Ltd to directly influence and contribute to NERT in the procurement, development and operational phases. This can be achieved through direct funding gained from RUC, borrowing, development gain, profits from sale of land or property, or a mixture of these. Indirect forms of funding can be delivered through in-kind benefits, for example: legal, technical or financial advice; land; or property.

10.6 Scottish Executive

At the meeting with the Scottish Executive, a range of key issues were discussed. Firstly, the main objective of the Scottish Executive is to ensure that any new transport system for North Edinburgh is fully integrated on a city wide and a regional/national basis to take into account transport interchange opportunities within Edinburgh. There would only be support from the Scottish Executive if the North Edinburgh Rapid Transit system allowed for easy interchange between other modes of transport at key locations throughout the city. The message was clear that existing bus and train services should integrate well with any proposed system and that this would be a key condition of the capital funding.
Whilst there was some concern over the ability of TIE to enter into a PPP agreement, the principle of TIE is supported by the Scottish Executive.

The issue of future funding for the North Edinburgh Rapid Transit system was discussed and the Scottish Executive made it clear that capital funding can be made available, but that on-going revenue support would not be encouraged as they are looking for economically viable projects.

10.7 Waterfront

Waterfront is a joint venture partnership between City of Edinburgh and Scottish Enterprise Edinburgh and the Lothians. The JV was formed with the intention of promoting development and regeneration in the Granton waterfront area.

The discussion with the Chief Executive of Waterfront indicated that the North Edinburgh Rapid Transit project is a crucial component of the development of the Granton area. The considerable amount of development planned in this area over the next decade will require to be serviced by public transport. This mixture of development includes housing, retail, office and leisure with a new college campus and other education uses. It is likely that many of those living in this area will travel on a daily basis for work purposes. In addition, the improved employment opportunities in the area will rely heavily on public transport for those living outwith the area.

Waterfront indicated that it was possible that many of the planned developments in Granton would be seriously delayed or postponed if the North Edinburgh Rapid Transit project did not go ahead. It was also indicated that there is extreme pressure on developer contributions and that there would be little or no additional contributions to the North Edinburgh Rapid Transit project.