tie Project Risk Review

Date of issue to City of Edinburgh Council Chief Executive : 15 Oct 2007

Review dates: 10-12 Oct 2007

Readiness Review Team Leader: Malcolm Hutchinson

Readiness Review Team Members:
Mike Heath
Willie Gillan

Background

The City of Edinburgh Council is engaged in the design and procurement of a tram network. The project is being delivered on the Council's behalf by **tie** Ltd, a wholly owned Council Company.

The proposed tram network comprises Phase 1a (Newhaven to Edinburgh Airport) and Phase 1b (Roseburn to Granton Square). There is currently £545m of available funding (£500m from Transport Scotland and £45m from the City of Edinburgh Council). This is unlikely to be sufficient for both phases, so it is proposed that Phase 1a is procured initially with an option to commence Phase 1b at a later date (latest March 2009). Following a parliamentary decision on 27th June, the Transport Scotland funding will be capped, with the City of Edinburgh Council fully exposed to any cost overrun risk.

The procurement strategy employed by **tie** Ltd was designed to reduce scheme costs by reducing risks to bidding contractors by procuring design and utilities diversions works in advance of the main contracts for design and manufacture of tram vehicles and construction of tram infrastructure. At financial close (anticipated to be January 2008), contracts for tram vehicles and design of the infrastructure (SDS) will be novated to the infrastructure contractor.

The procurement status:

The procurement process is at an advanced stage. The infrastructure design contract (SDS) and utilities contract (MUDFA) were both let some time ago and utility diversion works are underway. In addition, an Owner-Controlled Insurance Programme (OCIP) is in place to cover some of the project risks. BAFOs have been received from Tram Vehicle and Infrastructure bidders and it is intended that the preferred bidders be recommended to the City of Edinburgh Council meeting of 25th October 2007, along with the Final Business Case v1. Following this approval, negotiations will continue with the preferred bidders with a view to getting Council approval to the final deal on 20th December 2007 and contracts being signed in January 2008, provided Transport Scotland Approval is also received.

Contract negotiations are well under way and draft contracts have been prepared for all bidders by **tie's** legal advisers.

Assignment Objectives

- To review the contract Risk Allocation Matrix for the Infrastructure and Tram Vehicle contracts and identify those risks that remain within the public sector. DLA, the Projects and CEC's legal representatives have validated that the Risk Allocation Matrix reflects the risk allocation in these contracts.

- To assess and quantify the level of public sector risk in proposed contractual arrangement, by reference to the Risk Allocation Matrix, taking into account the Owner-Controlled Insurance Programme.

- To provide a reasoned explanation of the adequacy or otherwise of the available financial headroom, in view of the identified risks retained by the public sector, their probability of occurrence, impact on cost and time to the extent that these are not already provided for within the Project Risk allowances, the circumstances which would bring about the realisation of these risks and the mitigations that should be applied to reduce or avoid the risk impact.

Note: The available financial headroom is the difference between total funding (£545m) and the Project Estimate for Phase 1a, including risk and contingency allowances.

Terms of Reference of the Review are at Appendix A.

Conduct of the Review

This Review was carried out from 10 October to 12 October 2007 at **tie** offices in Edinburgh and off site. The team members are listed on the front cover.

The people interviewed are listed in Appendix B.

The documents listed in the TOR at Appendix C were made available to the review team.

Conclusions

The Review Team finds that:

- The risks that remain with the public sector are:
    - The outturn price and delivery programme of MUDFA works
    - The design and approvals processes delay the programme
    - FC is delayed and has knock on effects on approvals and programme
    - That the Novation process is not fully effective
    - Changes of scope
    - Delivering Land packages to programme
    - Third party delays
    - Ground Conditions
    - Systems integration is not fully effective
    - Delayed and/or qualified acceptance
    - Project Management skills and costs

- We endorse the assessment that the level of public sector risk on the capital expenditure programme is currently £49million at a 90% confidence level. Further our best estimate of the schedule risk is currently 21 days also at a 90% confidence level. This equates to a capital expenditure risk of a sum of £2.2 million in the context of the proposed contracts

- We believe that the overall headroom of £49m in the capital expenditure is a prudent provision at this stage of the project's development.

A summary of recommendations can be found in Appendix C.

Findings and recommendations

Project Risk Management capability in tie.

The tie risk management process is well developed and reflects best practice. A mature risk register is in place together with excellent risk capture and management processes. Advanced Quantative Risk Analysis (QRA) of capital cost estimates are routinely produced and incorporated into project estimates.

Review the contract Risk Allocation Matrix for the Infrastructure and Tram Vehicle contracts

We have reviewed the top level cost categories in the project as presented in the Final Business Case. The costs we have reviewed are in table 1 below:

	PHASE 1a
Utilities incl MUDFA	£51,527,335
Tram Vehicles	£51,370,227
Infrastructure	£222,581,448
Other Third Party Works	£0
Land & Property	£20,643,070
Including free issue land	£4,729,122
Design	£23,682,885
tie Project Management	£42,508,767
Other Resources	£20,571,078
Advisors / Prof. Fees	£16,200,968
Project Management Sub Total	£79,280,813
RISK	£48,974,000
Total Estimate	£498,059,778

Table 1

We believe it is of greatest value to the Council if we set out our findings under each of the headings, sub divided by total cost, current risk elements, (from the risk matrix), estimates of how much cost is fixed, risks going forward and strategies to mitigate these risks.

We set out our findings below: (for convenience we have rounded the numbers to the nearest £m).

1.0 UTILITIES AND MUDFA

1.1 FBC Cost - £52m

1.2 Current Risk

There are two principal risk areas, cost and time. The MUDFA contract is a Measured Rates contract awarded after competition. Work is already under way. The cost risk therefore relates mainly to the quantum of work to be done and any subsequent claims. We note that some investigative work is now being carried out and this should inform cost estimating.

The time element relates to delays in MUDFA works introducing consequent delays to InfraCo works. At present there appears to be a strong **tie** team managing these works. The main risk to time will therefore be starting MUDFA works late because of delays or changes in design.

1.3 Estimated costs to P11 2007/08 of £28m are not fixed for the reasons set out above (1.2).

1.4 Risks Going Forward

The risks to the MUDFA works remain largely the same throughout the period of the works although the effect of delays later in the MUDFA programme will have an increasing adverse effect on the InfraCo programme.

1.5 Risk Mitigation Strategy

We have reviewed the overall Risks Portfolio of £49m. Within this portfolio there is a substantial amount identified to accommodate MUDFA risks. At this stage we believe that the amount should be adequate.
We recommend that: there needs to be considerable focus on the design preparation and design approval mechanism to ensure that MUDFA works are commenced on time and do not need to be revisited. The emphasis on strong contract management must be continued.

2.0 TRAM VEHICLES

2.1 FBC Cost = £51m

2.2 Current Risk

The principal risks in the Tram Vehicle supply have already been addressed by the competition and subsequent appointment of CAF as preferred bidder.

2.3 Element of Fixed Cost = £50m

We have been assured by the **tie** team that the negotiations to reach preferred bidder have ensured that 95% of the costs are fixed.

2.4 Risks Going Forward

The novation of the Tram Supply Contract to InfraCo places the responsibility to deliver and integrate the Tram Infrastructure on InfraCo. However, the ability of the Tram and Infrastructure suppliers to integrate their products will be central to the success of the project. Although it is an InfraCo risk contractually, **tie** has a role in the Tram Inspection Contract and may become a party to any dispute (if they arise).

2.5 Mitigation Strategy

It will be necessary for **tie** to ensure that its team to manage the InfraCo delivery has the necessary expertise to develop a partnering relationship with InfraCo and protect **tie's** interests in Tram technical areas. We would expect Transdev to play an important supporting role given its experience in worldwide tram systems.

3.0 INFRASTRUCTURE

3.1 FBC Cost = £223m

3.2 Current Risk

The InfraCo contract is the immediate focus of the project. It is at risk to the possibility of delay in confirming a preferred bidder (PB) and cost creep between award of PB and final contract signature(FC). This risk has been exacerbated by the delays in design. We are aware that a Value Engineering (VE) Programme is ongoing. However, the VE programme is yet to be finalised thereby impacting on the certainty of the final costs.

3.3 Estimated Fixed Costs = £150m

This figure is based on the assurance from the **tie** commercial team that 70% of both of the InfraCo bidders' costs are fixed.

3.4 Risks Going Forward

There are a number of risk areas that apply to the contract which is itself critical for the project's success. These are:

Cost
Programme
Third Parties
Integration

3.4.1 Costs

The major risk to the cost element is that the VE programme does not deliver its anticipated benefits. We believe that a figure of around £7.5m may not be realised. This is in line with the amount in the risk portfolio.

Once FC has been achieved fixed costs are at risk to variations in scope.

3.4.2 Programme

We have reviewed the programme and seen sensitivity tests to assess a 90% confidence level of a delay of 21 days which would equate to a cost of £2.2m approx. This piece of work shows the criticality of programme now and going forward.

The programme will also be at risk to changes in scope but more importantly vulnerable to delays to tasks for which CEC and **tie** are responsible notably MUDFA works and approvals. The alignment of the SDS design going forward with the InfraCo programme will have a major effect on this aspect.

3.4.3 Third Parties

The major third party risk to the project rests with the relationship with Network Rail. At this stage we are not clear what the strategy is to deal with this. The early appointment of an InfraCo PB and early engagement of InfraCo's system integration with Network Rail will determine the way forward. Although the individual Network Rail itemised risk in the portfolio may be too small we believe it can be accommodated with the current overall total.

3.4.4 Integration

Systems integration between the "railway" elements operating in a roadside environment makes the Tram project

particularly challenging. The major risk is that Tram/InfraCo/Operations and Roadside environment do not converge technically or on programme and this risk will be most likely to emerge during the testing and commissioning phases.
We recommend that: two new risks are added to the register to deal with:

(i) integration aspects with the Council's UTC
(ii) although there is a general delays risk, the specific risk of delays to the programme consequent to matters emerging during testing especially final full system testing

3.5 Mitigation

3.5.1 The ability of **tie** to deliver a partnering relationship with InfraCo while ensuring that the InfraCo contract is delivered to the requisite quality will be paramount. Therefore, it is vital that the **tie** Project Management team has a clear vision of what it will be required to provide in terms of contract management, allied to its contractual responsibilities. **tie** needs to develop the strategy urgently and assess the resources it has available to deliver it. We believe good and effective contract management will be the single most effective means of delivering a quality product on time and budget.

We recommend that: a contract management strategy is developed at the earliest opportunity.

3.5.2 We cannot emphasise too strongly that major projects become quickly destabilised if there is no rigid change mechanism which is policed and enforced at all levels of the organisation including the project board. We have seen the processes in the Project that are themselves sound but the introduction of a "no change" culture is of paramount importance.
We recommend that: the Project Board determines how they will oversee change management going forward.

3.5.3 Given the financial impacts of delays to the programme we consider that the **tie** Programme management function should be central to the Projects' management. The linkage between design/approval and InfraCo is critical and will need serious attention. It will be important for **tie** to have the tools to do this effectively. Again, variations that impact on scope and time must be subject to the change control process.
We recommend that: the forthcoming **tie** organisational changes place programme management at the centre of the

project and that sufficient resources are allocated to this function.

3.5.4 It is clear that the amount of design envisaged to be delivered to support novation of the contract to InfraCo will not be achieved.
We recommend that: tie and CEC need to agree a package of work to deliver design work to support novation and minimises risk.

3.5.5 The output of the Risk QRA allocates a large sum to accommodate the impact of some of these risks crystallising. At this stage we do not believe any additional monies should be set aside for the above risks. However the commercial strategy may be to buy out some of these risks in the final InfraCo negotiations. A good example of this is "Ground Conditions."
We recommend that: the commercial strategy considers buying out some of the risks in order to protect the programme.

3.5.6 **tie** should ensure that it has provided the best possible information for the InfraCo to finalise its price. The Ground Conditions issue is an example that we understand is still outstanding with the two bidders.
We recommend that: further ground condition surveys should be commissioned so as to mitigate some of the contingency the PB will be applying for uncertainty.

4.0 LAND AND PROPERTY

4.1 FBC Cost = £21m

4.2 Current Risk

The risk to this area is that land and compensation costs are more than budgeted.

4.3 Estimated Fixed Costs = £17m

We believe that the process to acquire land is sufficiently well developed that variations in valuation will be potentially self adjusting.

4.4 Risks Going Forward

The risk of increased cost remains. The risk of delivering land in packages to meet the InfraCo programme will increase as the land acquisition programme develops..

4.5 Mitigation Measures

We understand **tie**/CEC has a team who are entirely focussed on this aspect and delivery is on schedule. There are also elements in the Risk Portfolio that should be adequate to deal with any price increases and compensation claims.

5.0 PROJECT MANAGEMENT (this includes **tie** Project Management, Other Resources and Advisors/Professional fees)

5.1 FBC Cost = £79m

5.2 Current Risk

The current risk to this area relates to having the wrong balance of staff or advisors thereby incurring unnecessary costs.

5.3 Estimated Fixed Costs = £43m

5.4 Risks Going Forward

The principal risk is that **tie** fails to recognise in time that it has either an inadequate amount of staff/resources or that the skills mix is wrong.

5.5 Mitigation

tie must establish its Contract Management vision and then determine the resource required to support it. If necessary, it may be appropriate to redistribute an element of the risk budget to support project management fluctuations.

6.0 DESIGN

6.1 FBC Cost = £23m

6.2 Current Risk

The Design costs are fixed in the SDS Contract. The main risks relating to design are those of delays in the delivery of design in a timely fashion and that can be readily approved. These have been dealt with at length elsewhere.

6.3 Fixed Element of £20m

We have taken this figure from the Project's budgets. There may be some commercial issues still outstanding. We note there is a risk allowance for this.

6.4 Risks Going Forward

The novation of SDS contract to InfraCo protects **tie** from this risk. The major issues relate to changes etc mentioned previously.

6.5 Mitigation

As discussed in Section3

Assessment and quantification of Public Sector risk.

QRA of the risk matrix produces an estimate of the Public Sector Risk on capital expenditure of £49 m. There is currently a matching risk contingency of £49 million in the project budget

As part of this Risk Review we commissioned a series of 'Monte Carlo' simulations on:

- The impact of the whole risk portfolio as reflected in the Risk Allocation Matrix on capital expenditure. This confirmed the above £49 million risk which is matched by an equivalent contingency in the project funding.

- The impact of the 13 most significant risks on capital expenditure. This demonstrated that some £37 million (75%) of the total risk contingency is attributable to these 13 risks. This bodes well for the effective mitigation of a significant part of the risk contingency.

- The sensitivity of impact on capital expenditure to 5% increases in the probability of each risk. This resulted in a corresponding 6% increase in cost.

In addition we requested that an attempt be made to simulate the effect of risk on the project in terms of delays in the project schedule. The Risk and Programme Managers developed a method of achieving this and were able produce an initial output showing a 90% confidence level in a delay of 21.48 days equating to a cost of £2.2 million. We note that the general delays risk currently has £3.2m assigned to it.
We recommend that: After FC this risk is re-assessed in the light of the Infraco programme and adjusted if necessary.

There are QRA programme packages available that interface with the Programme management software in use by the Programme Manager and which would facilitate the routine production the schedule risk and improve their credibility. As the project moves forward into the delivery phase, the schedule risks will inevitably increase in importance and are likely to impact the public sector adversely unless monitored and managed effectively.
We recommend that: the appropriate software is procured and taken into use in the project team and that schedule monitoring and simulation be introduced as tools in the risk management and mitigation process.

Owner Controlled Insurance Programme(OCIP)

A note on OCIP is attached at Annex C

This Insurance covers damage or loss of the contract works and third party liabilities. The cover provided appears appropriate for the project. This approach to insurance rather than the client and the supplier making separate insurance provision, all of which would have found their way into project costs, has clearly saved the project a significant additional cost and is commendable. The cover does not affect the public sector risks related to programme delivery and performance.

The adequacy or otherwise of the available financial headroom

We have reviewed the individual elements of risk and the total amount. We understand that the consideration of risk by the project leaders is a dynamic process and our view must therefore be very much a " snapshot" taken at this moment.

On this basis, we believe that the overall Portfolio amount of £49m is a prudent estimate at this stage of the project's development.

Our review of the individual elements of risk has concluded that we believe the quantum of risk is well founded. There may be questions whether the assessments of the probability of the risk crystallising and its likely cost are individually good forecasts but is our view that any variations to these are likely to be very much self compensating.
The key risks at this stage of the Project relate to

MUDFA
InfraCo Cost
Programme
Testing/Commissioning

These risks are appropriately represented in the "Top 13" risks and we think the sums allocated to them are of the right order at present **but will require regular review.** Although the Testing/Commissioning risks are not yet individually specified in the risk Portfolio we consider their impact can be incorporated within the amount envisaged for the overall programme risk.

In our experience we would expect an overall contingency for "risk items of around 10% to have been included in budget estimates. This would equate to a figure of £54.5m. This figure would have been the one off for the project throughout its life.

The Council should take comfort that the current cost estimates, including risk, are for a total project cost of £498m compared with the budget of £545m. From a funding approval viewpoint in late December it should be recognised that there may be some variation in the £498m figure as the deal is concluded.

We recommend that the figure of £498m is used as the budget ceiling for all discussions through to FC and that the Infrastructure amount of £222m remains the focus for all parties through to Financial Close (FC).

This means that the current £49m of risk is set against a total project cost of £498m. We think £320m of the £498m is fixed/certain through being spent already or subject to agreed firm prices. This means that the £49m of risk is a contingency to a sum of £180m (the variable amount to completion at this stage), which is an extremely healthy position for the project. If we then take the Project Budget's outstanding £45m as additional contingency plus any amounts built into individual cost estimates then there is around £90-95m of contingency to set against outstanding costs of £180-225m. This position is extremely advantageous compared with other Tram projects and should give the council considerable re-assurance at this stage.

We recognise that the Council is committed to deliver Stage 1b if it can and it has firm price estimates for the majority of this work and this should ensure that there is a significant financial incentive not to dissipate the contingency now.

We recommend that: the "Risk" contingency is reviewed by the Project Board as part of its governance of the project and that the decisions to release risk contingency amounts balance certainty on cost and risk transfer from the Council to its suppliers with certainty of delivering on programme. At this stage (before FC) risk should relate entirely to Capital Project related matters Following FC schedule risk should be monitored and managed in terms of both time and cost

APPENDIX A

Edinburgh Tram Risk Review

Client City of Edinburgh Council ("CEC")

Involved CEC, TEL, **tie** (Project Management)

Dates: Commencing 10th October 2007 with final report due on 15th October 2007.

Team: Malcolm Hutchison, Mike Heath, Willie Gillan

Location: CityPoint, Haymarket Terrace, Edinburgh

Background

The City of Edinburgh Council is engaged in the design and procurement of a tram network. The project is being delivered on the Council's behalf by **tie** Ltd, a wholly owned Council Company.

The proposed tram network comprises Phase 1a (Newhaven to Edinburgh Airport) and Phase 1b (Roseburn to Granton Square). There is currently £545m of available funding (£500m from Transport Scotland and £45m from the City of Edinburgh Council). This is unlikely to be sufficient for both phases, so it is proposed that Phase 1a is procured initially with an option to commence Phase 1b at a later date (latest March 2009). Following a parliamentary decision on 27th June, the Transport Scotland funding will be capped, with the City of Edinburgh Council fully exposed to any cost overrun risk.

The procurement strategy employed by **tie** Ltd was designed to reduce scheme costs by reducing risks to bidding contractors by procuring design and utilities diversions works in advance of the main contracts for design and manufacture of tram vehicles and construction of tram infrastructure. At financial close (anticipated to be January 2008), contracts for tram vehicles and design of the infrastructure (SDS) will be novated to the infrastructure contractor.

The procurement process is at an advanced stage. The infrastructure design contract (SDS) and utilities contract (MUDFA) were both let some time ago and utility diversion works are underway. In addition, an Owner-Controlled Insurance Programme (OCIP) is in place to cover some of the project risks. BAFOs have been received from Tram Vehicle and Infrastructure bidders and it is intended that the preferred bidders be recommended to the City of

Edinburgh Council meeting of 25th October 2007, along with the Final Business Case v1. Following this approval, negotiations will continue with the preferred bidders with a view to getting Council approval to the final deal on 20th December 2007 and contracts being signed in January 2008, provided Transport Scotland Approval is also received.

Contract negotiations are well under way and draft contracts have been prepared for all bidders by **tie's** legal advisers.

Assignment Objectives

- To review the contract Risk Allocation Matrix for the Infrastructure and Tram Vehicle contracts and identify those risks that remain within the public sector. DLA, the Projects and CEC's legal representatives have validated that the Risk Allocation Matrix reflects the risk allocation in these contracts.

- To assess and quantify the level of public sector risk in proposed contractual arrangement, by reference to the Risk Allocation Matrix, taking into account the Owner-Controlled Insurance Programme.

- To provide a reasoned explanation of the adequacy or otherwise of the available financial headroom, in view of the identified risks retained by the public sector, their probability of occurrence, impact on cost and time to the extent that these are not already provided for within the Project Risk allowances, the circumstances which would bring about the realisation of these risks and the mitigations that should be applied to reduce or avoid the risk impact.
  Note: The available financial headroom is the difference between total funding (£545m) and the Project Estimate for Phase 1a, including risk and contingency allowances.

Access to Information/Personnel

The following documents will be available for review:

- Final Business Case v1 (available from 26th September)
- Draft Final Business Case (November 2006)
- Proposed Infrastructure Contract (preferred bidder)
- Proposed Tram Vehicle Contract (preferred bidder)
- Contract Heads of Terms and Risk Matrix prepared by **tie's** legal advisers
- Owner Controlled Insurance Programme
- Capital Cost Estimates, incorporating BAFOs provided by bidders

Initial contact will be with Rebecca Andrew and Duncan Fraser at the City of Edinburgh Council. They will be able to arrange for meetings with relevant personnel within the Council and **tie** Ltd, as is necessary, to meet the assignment objectives.

Reporting Timetable

A formal report must be submitted to the City of Edinburgh Council on or before Monday 15th October 2007. This will be followed by a presentation of key findings and recommendations to Council officers and **tie** employees on Wednesday 17th October.

Resources

It is anticipated that work will be carried out by qualified professionals with experience of similar large-scale infrastructure projects in the transportation sector.

Programme

The team will visit Edinburgh on 10th and 11th October and carry out detailed analysis or risk, including running a quantified risk analysis. The report will be provided on 15th October and a presentation made to CEC on 17th October.

APPENDIX B

NAME	ROLE
Willie Gallagher	Executive chairman, (**tie**)
Matthew Crosse	Project Director (**tie**)
Mark Hamill	Risk manager (**tie**)
Duncan Fraser	Tram Coordination (CEC)
Miriam Thorne	Head of Tram Project Finance (**tie)**
Tom Hickman	Program Manager (**tie)**
Geoff Gilbert	Commercial Director (**tie**
Rebecca Andrew	Principal Finance Manager (CEC)
Duncan Fraser	Tram Coordination (CEC)
Alan Coyle	Finance Manager (CEC)
Tracey Kinloch	Insurance Adviser (**tie**)

APPENDIX C

Note on Insurance for OGC – Tracey Kinloch 10 October 2007

1. Current Insurance Protection

Owner Controlled Insurance Programme

tie has developed a strategy for procuring an Owner Controlled Insurance Programme (OCIP) for the Construction Phase of the Edinburgh Tram Project. The main benefits of this are that all contractors and stakeholders are insured partners in the project specific insurance programme, have the required same level of cover and deductibles, follow the same claims procedure and avoid costly recovery action with the existence of waiver of subrogation between the insured parties. It allows **tie** control of the insurance programme and to have a directly managed claims recovery process. This project specific insurance has proven to be value for money.

The OCIP will cover damage or loss of the contract works (Limit will be the Construction Value £341.9m) and third party liabilities (Limit £155m), both will be subject to policy terms and conditions. This type of project specific insurance is generally cheaper than contractor's charges for insuring the risks themselves. OCIPs have a proven record with numerous transport projects and generally meet the approval of capital providers. The OCIP approach has been used on major construction projects, such as UK Light Rail Schemes, DLR plus all extensions, Jubilee Line, Heathrow Terminal 4 Piccadilly Line Extension, Heathrow Terminal 5, West Coast Mainline upgrades and Eurotunnel.

Required Insurances

Each of the main contractor's and their sub-contractors are also required to procure other insurances during the design and construction phases and for certain periods after completion, to levels specified, for example, professional indemnity (PI) and employer's liability. These have been identified and catered for in the contracts. One party in each INFRACO team does not have the required level of PI insurance, however, both have sufficient balance sheet protection to cater for potential PI claim. Project specific PI insurance to cover this exposure was not seen as value for money.

To ensure governance on insurance matters, papers were submitted the Project Director and Project Board, following reviews and evaluations of the OCIP, Required Insurances and Corporate Renewals.

Corporate Programme

tie currently has the appropriate scope of industry standard office insurance covers in place covering its liabilities, which is reviewed on an on-going annual basis. The covers and limits purchased are briefly:-

Employers Liability - £10m
Public and Products Liability - £5m
Professional Indemnity - £5m
Office & Computers - (Replacement Values)
Personal Accident & Travel – Various limits
Directors' and Officers' Liability - £10m
Crime - £500,000

All covers are subject to policy terms and conditions. There are a number of "single person" contractors / advisors working directly for **tie**. Depending on their contract terms and conditions they may be insured under **tie**'s office insurance policies

2. Insurance Protection to be procured

Construction

There are 2 areas of project insurance being reviewed.

- Marine Delay in Start Up – The main contractors are currently providing marine insurance, however, a review is being undertaken to assess value for money for a project marine cover to also insure **tie** / TEL's potential revenue losses.
- Environmental Impairment - A review is being undertaken to assess value for money and exposure to contaminated land.

Operational

It has been agreed in the main contracts that an operational Owner Controlled Insurance Programme will be procured by **tie** / TEL to cover all interested parties for material damage, business interruption and third party liability risks. Indicative terms were received from bidders for the first 2 years of operation following the issue for an OJEU notice. Due to the length of time until passenger operation, insurers were not willing to provide firm quotations. **tie's** insurance brokers are discussing this matter further with the bidders.

3. OCIP Deductibles

Responsibility for payment of the OCIP deductibles is under negotiations with the main contractors with the intention to transfer these costs to the private sector, unless **tie** is negligent, however, provisions have been made within the project costs to cater for **tie**'s exposure as the contracts stand.

4. Site Security and Vandalism

Clause 30 of the INFRACO covers the transfer of the safety and security of the site to the private sector.

Vandalism is an insured risk under the OCIP and the responsibility for the deductible will currently be the responsibility of either INFRACO or **tie** depending on the selected bidder. Provisions have been made for **tie**'s exposure in the current project costs.

5. Reinstatement of the Works

In the event that the works are damaged a loss adjuster would be appointed by the OCIP insurer to review and approve the bill of quantities and estimates. They will approve these and the contractor, who is selected and authorised by the insurer, would present his bill to the loss adjuster for approval and payment, subject to the policy deductible. Insurers would make interim payments to the contractors where necessary.

Appendix D

Summary of recommendations

No.	Recommendation	Status
1.	There needs to be considerable focus on the design preparation and design approval mechanism to ensure that MUDFA works are commenced on time and do not need to be revisited.	
2.	• Two new risks are added to the register to deal with integration aspects with the Council's UTC • although there is a general delays risk, the specific risk of delays to the programme consequent to matters emerging during testing especially final full system testing	
3.	A contract management strategy is developed at the earliest opportunity.	
4.	The Project Board determines how they will oversee change management going forward	
5.	The forthcoming **tie** organisational changes place programme management at the centre of the project and that sufficient resources are allocated to this function.	
6.	**tie** and CEC need to agree a package of work to deliver design work to support novation and minimises risk.	
7.	The commercial strategy to finalise matters by PB considers whether some aspects would be better finalised commercially to protect the programme.	
8.	Further ground condition surveys should be commissioned so as to mitigate some of the contingency that PB will be applying for uncertainty.	
9.	After FC this risk is re-assessed in the light of the Infraco programme and adjusted if necessary.	
10.	Appropriate schedule monitoring and risk simulation software is procured and taken into use in the project team and that schedule monitoring and simulation be introduced as tools in the risk management and mitigation process.	
11.	The figure of £498m is used as the budget ceiling for all discussions through to FC and that the Infrastructure amount of £222m remains the focus for all parties through to Financial Close (FC).	