

## TRAM Project

Paper to : Tram Project Board  
Subject : Risk Management Development Plan  
Date : 28<sup>th</sup> September 2006

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## 1.0 Introduction

- 1.1 The purpose of this document is to:-
- Ensure a consistent and demonstrable approach to risk management, risk allowances management and reporting;
  - Ensure accurate identification and assessment of risk;
  - Ensure delivery of mitigations;
  - Assure tie Board, the Project Board and stakeholders that risks are being managed appropriately; and
  - Support the ongoing decision making process of the tie project management team.
- 1.2 The scope of risks considered by this process shall comprise those potential events that have an impact on project cost, programme and quality (tram system performance) performance.
- 1.3 tie requires that a consistent, demonstrable approach to Risk Management is adopted across its projects thus providing an informed view of the risk position across all projects. In order to achieve this, the risk management process shall be mandatory.
- 1.4 The Tram Project maintains a risk register that has been used to undertake QRA analysis on capital cost estimates. The Tram Project is supported by service providers, including, SDS (Parsons Brinckerhoff) who maintain an Infrastructure Design Risk Register and JRC (Steer Davies Gleave) Transport Modelling Risk Register. It is proposed that a single platform for management of the risks is developed.
- 1.5 The Risk Manager (Mark Bourke) shall be responsible for implementing this Plan in consultation with the Commercial Director (Geoff Gilbert) with ultimate accountability for the management of risk exposures to the scheme residing with the Project Director (Andie Harper). It is intended that Risk Owners will be the Project Managers, Functional Manager or Team Principal Manager e.g. Procurement Manager.

## 2.0 Management Activities

- 2.1 The management activities associated with the co-ordination of service provider inputs will require to be documented within a Project Risk Management Plan.
- 2.2 A RACI chart has been appended to this report to summarise overall responsibilities.

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- 2.3 The Plan will be developed to accommodate the inputs (e.g. reports on risk) from our contractors including MUDFA, TramCo and InfraCo. The format of inputs from current service providers including SDS, TSS, JRC and Operator shall be reviewed to ensure that the necessary information is obtained to manage the Project's risk position
- 2.4 The Risk Manager will be responsible for the development and maintenance of the Project Risk Management Plan.
- 2.5 Risks will be allocated to the relevant Risk Owners who will be responsible for managing them (essentially identifying and delivering the mitigations)
- 2.6 The indicators for measuring the success of mitigation shall be the delivery of planned mitigations and consequential reduction in project risk allowances, 'current' severity rating and ability to 'close' the risk. The Risk Manager shall hold one-to-one meetings with the agreed Risk Owners to assess the progress of planned mitigation measures for each risk and seek updates on progress on the above indicators. The 'due dates' for concluding planned mitigations will be defined by the Risk Owners consistent with the Project Design and Construction Phase implementation programme. The Risk Manager shall validate these due dates in consultation with the Project Managers.
- 2.7 Roles and Responsibilities in relation to planning and managing risk, risk allowances management and contractual risk allocation management are detailed below.
- The Estimating Manager (John Pantony) and Risk Co-ordination Manager in consultation with the Commercial Director shall be responsible for allocating the estimated risk allowances to the appropriate Contract, Budget Workstream and Project Manager
  - The Procurement Manager (Bob Dawson) shall be responsible for reviewing the risk register in consultation with Risk Manager and Risk Co-ordination Manager in order to ensure that the Contracts under preparation or negotiation adequately address the perceived risk exposures and that the desired allocation is set out in the Project Procurement Strategy and Contract Documents

**3.0 Process**

- 3.1 The risk management process can be broken down into the two stages.
- Identification and Assessment of Risk
  - Monitoring, Review, Reporting and Action
- 3.1.1 The Identification and Assessment of Risk stage requires the following to occur:-
- All Project Managers, Functional Managers and Directors to be responsible for the identification of risk to the Tram Project activities and bring this to the attention of the Risk Co-ordination Manager.
- 3.1.1.1 The Risk Co-ordination Manager shall:-
- be responsible for maintaining a 'live' risk register. The identification and assessment process shall be additionally supported through workshops.

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- liaise with the Risk Owners regarding the likelihood and severity of each risk and mitigation plans. This activity shall be recorded in a Risk Mitigation Plan Template.
- ensure that the risk register is updated each month via discussion with Risk Owners. Updates of QRA shall in turn be undertaken at each month for significant changes.
- be responsible for the preparation and maintenance of a Quantitative Risk Analysis and Optimism Bias Analysis for reporting the range of potential necessary risk allowances on the capital cost and estimate and programme. These analyses will inform the Project Estimate, Baseline Programme and in turn the Business Case.

3.1.2 Throughout the Monitoring, Review, Reporting and Action stage, the following actions shall need to be carried out:-

- The Risk Co-ordination Manager shall be responsible for monitoring the progress being made in completing mitigation actions with the Risk Owners and shall report where mitigation actions have not been completed by 'due dates' to the Risk Manager who will meet the relevant Risk Owners. The Risk Owners will be responsible for ensuring that the planned actions are completed.
- They shall also develop the format and content of Progress Reports with support from the Risk Manager and Commercial Director.
- The Risk Manager will supplement the monitoring with formal quarterly reviews (and at each significant milestone) of Risk Register to ensure that the risk management processes are meeting the objectives.
- The Risk Manager shall be responsible for presenting the risk report elements to the Commercial Director prior to them being reported to the DPD and Tram Project Board monthly meetings.
- The Project Director and Commercial Director shall be responsible for decision making regarding the release of risk allowances. The Commercial Director shall be responsible for reporting on this drawdown.
- Drawdown of risk allowances shall be authorised via the Project Change Control Process
- The following criteria will be used to extract the 'critical' external (stakeholder) and internal (project) risk exposures to readily inform the tie Board, Project Board and Project Team and incorporate within a monthly Progress Report.

Risk Type	Short-listing Criteria
Stakeholder	Severity of risk to tie's reputation; project viability and immediacy to mitigate risks e.g. project affordability, availability of funding, approval of business case.
Project	Magnitude of impact to cost and programme e.g. Network Rail interface costs, late submission of TRO information, unforeseen ground.

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### 4.0 Risk Register Structure

- 4.1 The existing Tram Project risk register records both 'stakeholder' and 'project' risks and has been used to determine the levels of potential cost and time risk allowances required on the scheme by Monte Carlo analysis.

The following headers will be considered in the development of the single Risk Register by the Risk Co-ordination Manager in consultation with the Risk Manager.

- Identification of 'stakeholder' and 'project' risks
  - Cost, time and system performance impacts
  - Risk owners (named individuals) with dates for completing treatment and indication of 'status' (e.g. active or closed)
  - Scoping of 'complete actions' and 'planned mitigation' to allow current residual risk assessment
  - Contract where risk will be allocated (e.g. TramCo) and 'desired' risk allocation e.g. retained, transferred or shared with private sector
  - Mitigation factor to allow Optimism Bias estimation
- 4.2 The intended software to be used for recording risk register will be Active Risk Manager (web based software for enterprise risk management). The Risk Manager and Co-ordinator will be responsible for developing and implementing a plan to compile a 'single' scheme risk register under tie's control. The Risk Co-ordination Manager will agree the necessary licence requirements and access rights of Directors and principal Project Managers within the project team.

### 5.0 Principal Outputs

- 5.1 The main outputs from this development plan are summarised as follows.
1. Project Risk Management Plan including:-
    1. Risk Mitigation Plan Forms for each risk
    2. Project Risk Register
    3. Quantitative Risk Analysis (QRA) on estimated Cost and programme risk impacts
    4. Contract Risk Allocation Matrices
  2. Risk Management Progress Report
  3. Optimism Bias Estimate on Cost Estimates

**6.0 Recommendation**

6.1 It is recommended that the Sub Committee approves the proposals set out above.

**Proposed**                      Mark Bourke    Date:- 10/10/06  
   Risk Manager

**Recommended**                Geoff Gilbert    Date:- 10/10/06  
   Project Commercial Director

**Approved**                        .....    Date:- .....  
   Tram Board DPD Sub Committee

Activity	Functional Roles							
	Finance Director	Commercial Director	Risk Manager	Risk Co-ordination Manager	Programme Manager	Estimating Manager	Procurement Manager	Project/Functional Managers
Development, Implementation & Maintenance of Project Risk Management Plan		A	R	C	C	C	C	C
Development of the risk management system including risk register and QRA		A	R	C				
Identification and Assessment of Risk to the Project	C	C	A	C	C	C	C	R
Development and Delivery of Risk Mitigation Plans	C	C	A	C	C	C	C	R
Update of the Project Risk Register		C	A	R	C	C	C	C
Quantitative Risk Analysis (QRA) on estimated cost impact	I	C	A	R	C	C	I	I
Programme Risk Analysis	I	C	A	C	R	C	I	C
Allocation of Risk and Allowances to Risk Owners	I	C	A	C	C	R	C	C
Update of Project Estimate for Updated QRA	I	C	A	C	C	R	C	C
Update of Project Programme for Updated QRA	I	C	A	C	R	C	C	C
Reporting on Management of Risk – workstream review	I	I	A	C	C	C	C	R
Reporting on Risk -Project Overview	I	A	R	C	C	C	C	C
Optimism Bias Estimate on Cost Estimates and Works Duration	I	C	A	R	C	C		C
Preparation and update of Contract Risk Allocation Matrices		A	C	C	C	C	R	C
Monitoring on Risk Management progress by Risk Owners	I	C	A	R	I	I	I	C
Quarterly/Milestone Risk Reviews -Risk Management Plan and Framework	I	A	R	C	C	C	C	C

RACI is an abbreviation for:

**R = Responsible** – owns the delivery of the Activity

**A = to whom “R” is Accountable** – must sign-off (approve) the output of the Activities

**C = to be Consulted** – has information or capability to contribute to the activity

**I = to be Informed** – must be notified of results