Edinburgh Tram Project

Project Management Plan

Owner: ETP Project Team

Project Management Plan

Trams for Edinburgh

Issue & Revision Schedule

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...connecting our capital

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1.0 Introduction

1.1 ------Executive Summary

This plan provides an overall framework for the management of the Edinburgh Tram Project (ETP) and is complemented by detailed functional plans, procedures and documentation which are sign posted in this Project Management Plan. It covers the design, procurement, construction, commissioning and full integration of Phases 1a and 1b of the project which are part of plans to create a wider Edinburgh Tram Network (ETN).

It is intended as a working tool for all involved in the project to ensure that that the project is managed professionally, effectively, efficiently and consistently throughout the life of the project.

1.2 ------Scope of the Project Management Plan (PMP)

This Project Management Plan sets out the management arrangements for delivery of the Edinburgh Tram ~~Network (ETN~~Project (ETP). The intention off this document is to provide the reader with a clear understanding of how the various project objectives and how the project will be managed to ensure that these are achieved.

The plan sets out the project organisation and governance, the roles and responsibilities of all project team members, and the way team members will work together and communicate with each other. It also describes what documentation, processes and systems will be adopted by the project and why. In addition, the PMP includes a copy of the **tie** project master programme and describes how the project will be deemed to be complete.

The PMP is a 'live' document and will be updated on a regular basis to reflect the development of the project as it progresses from the current Design Development and Procurement Phase, through Implementation, Commissioning and the Operations Phase.

The PMP should be understood by all Project Management Team members and is recommended for issue to key stakeholders and to major contractors.

1.3 ------Conformance to Standards and Procedures

~~A clear indication of standards freezes policy on the project as well as on~~ Compliance with this Project Management Plan, associated plans and procedures ~~applicability. Lifetime and revising periods~~and **tie** policies and procedures will be ~~agreed in~~audited through the ETP quality system and the ~~project definition stage~~**tie** quality system. .

1.4 ------Document Structure and Hierarchy

Because of the complexity of the ETP this plan is described in a series of inter-related documents, appropriate to their intended use. Table 1.4 below identifies each of these documents and gives a simple explanation of what the reader should expect from each one.

Figure 1.4 demonstrates the project document hierarchy.

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Table 1.4– ETP Document Structure

	Document	Content
0	tie Business Management Policies and Procedures	These are tie corporate policies and procedures that must be reflected in the project documentation
1	Tram Project Policies	Policies developed for the Tram project from which the detailed plans are developed
2	Project Management Plan	This document presents a summary of how the project will be managed. It defines the ETP at high level in terms of What? Who? When? How Much? And How? Particular emphasis is given to the way the project will be governed and authority for decision making is given and received. The Project Management Plan (PMP) is to be the key working document that tells the project team how the job will be delivered.
3	Management sub-Plans	Specific topics that require detailed individual plans will be developed into sub-Plans. These will be referenced in the PMP and made available to the project team. The topics that are considered to warrant sub-Plans are identified in Section 5 of the PMP. Summary management strategies are included in the PMP, describing what, why and who for each topic.
4	Project Procedures	Procedures will be developed for specific activities where the Project requires a controlled consistent approach from all team members. Where possible existing CEC and tie procedures and standards will be adopted with the aim being to ensure control and high quality.
5	Process Support Documents & Forms	Forms and documents that are not contained within the detailed procedures themselves

Figure 1.4: ETP Document Hierarchy
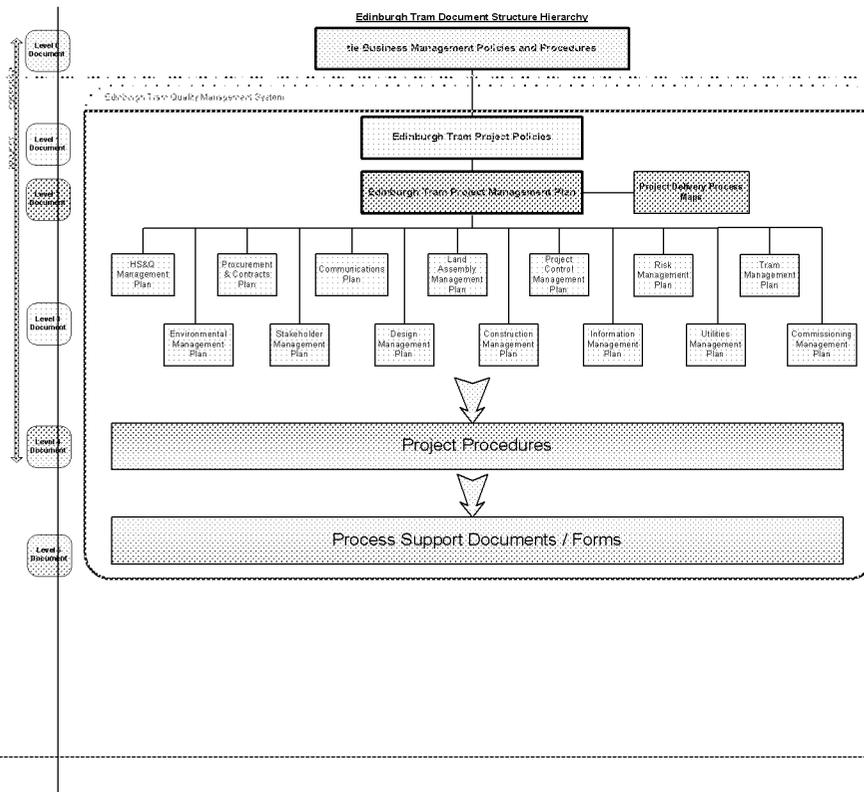
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Edinburgh Tram Document Structure Hierarchy
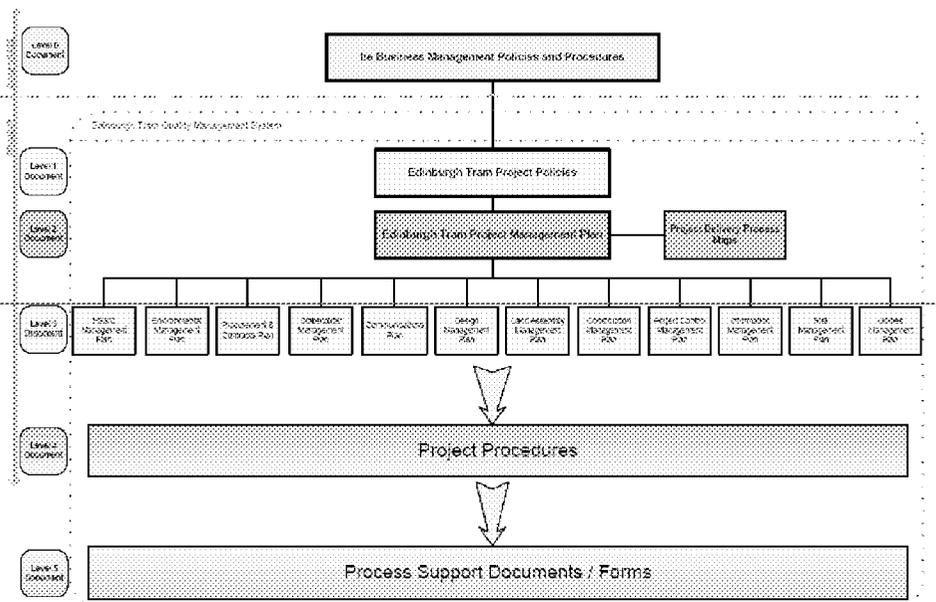
1.5   Glossary

Please refer to Appendix A for a full Glossary listing.

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Trams for Edinburgh
...connecting our Capital

What?

What is Edinburgh Tram Project and what is tie setting out to achieve?

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2.0 Project Objectives

2.1 Strategic Objectives

Statutory powers to construct and operate Trams for Edinburgh are contained within the following Acts:

- Edinburgh Tram (Line One) Act 2006
- Edinburgh Tram (Line Two) Act 2006

The broad policy objective of the Acts is to help to create the transport infrastructure necessary to promote and support a growing local economy and create a healthy, safe and sustainable environment. Sustainable economic growth can only take place with a step change in public transport. Road space must be created by modal shift away from cars to enable economic growth to take place without increasing congestion. A tram system will enable new development and continued growth of existing development in a sustainable way. Without it, growing traffic congestion and lack of access to development sites will curb future growth and threaten the economic prosperity of the city.

The Tram Project supports the national, regional and local planning and transport policies. The aim of the project is to meet the following objectives:

To support the local economy by improving accessibility

An integrated, efficient, accessible and high quality public transport system promotes economic growth to the local community which leads to social inclusion and further economic development. There will be better and easier access to employment opportunities in Granton, Leith, Muirhouse, Pilton and Newhaven which will be created as a result of the redevelopment of this area. In addition those people who reside in Granton, Leith, Muirhouse, Pilton and Newhaven will have easy access to employment opportunities in West Edinburgh and beyond.

To promote sustainability and reduce environmental damage caused by traffic

The tram will help to increase the proportion of people who travel on public transport, thus encouraging more sustainable travel. Encouraging modal shift from car will reduce local and global emissions and will help the City of Edinburgh comply with the targets set by the Air Quality Amendment (Scotland) Regulations 2002. Modal shift is fundamental to achieving the environmental, sustainability, health and fitness, and traffic aspirations.

To reduce traffic congestion

Fundamental to the achievement of economic development and environmental aims of the vision are:
- Reduce the number of trips made by car; and
- Reduce road traffic volume on key urban routes.
- Reducing congestion and delays on key routes will enable cars to be used efficiently.

To make the transport system safer and more secure

By reducing vehicle volumes, speeds and making roads safer for both users and non-users, there will be less road traffic accidents and casualties.

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To promote social benefits

The new system will provide an opportunity to promote social inclusion and community benefits, which are fundamental to the respective elements of the vision by:

- Improving the liveability of streets; and
- Improving access to transport system by people with low incomes, no access to car, the elderly or mobility impairments.

2.2 Project Delivery Vision, Mission, Purpose, Values & Objectives

To allow successful delivery of the project scope, a vision, purpose, values and mission have been developed for the project as follows:

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Trams for Edinburgh
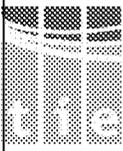
- On time delivery
- Deliver scope within budget and authority levels
- Delivery project safely and in and environmentally sensitive manner (including sustainability)
- Lead our people and develop them through the project ensuring that this is a positive and enhancing work experience
- Engage positively with our stakeholders through proactive communication to ensure they are informed about the project
- Continually improve the quality of everything we do during the project lifecycle
- Realise the project benefits

Not sure about how we can translate the last one into a KPI but I think we can do so for the rest.

Revised Vision – to be successful and safe in our delivery of the Phases 1a & 1b of the Edinburgh Tram Project
Values – OK
Purpose – to provide a project management and delivery service to CEC/TS for the successful delivery of the Edinburgh Tram project
Mission – to deliver the agreed scope of the Edinburgh Tram time and budget, safely and with respect to the environment

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Trams for Edinburgh

VISION
(What we want to be)

To be successful and safe in our delivery of Phases 1A and 1B of the Edinburgh Tram Project

VALUES
(Who we are)

Empowered and encouraged through leadership
Focussed on our delivery
Proactive and motivated in our attitude
Balanced in our work and life
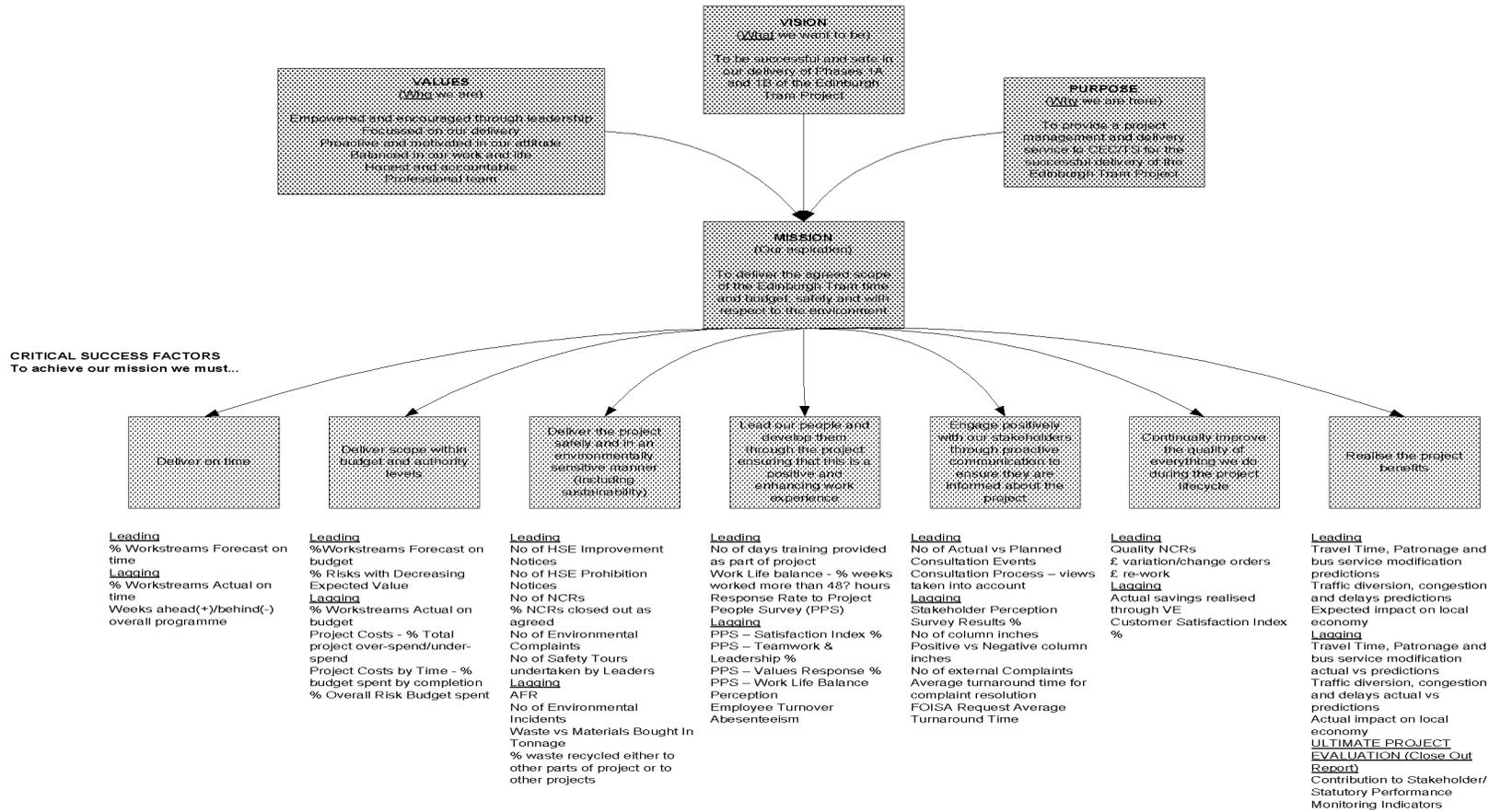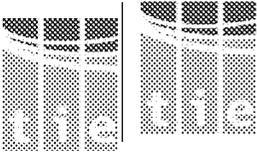Honest and accountable
Professional team

PURPOSE
(Why we are here)

To provide a project management and delivery service to CEC/TIE for the successful delivery of the Edinburgh Tram Project

MISSION
(Not duplicated)

To deliver the agreed scope of the Edinburgh Tram time and budget, safely and with respect to the environment

CRITICAL SUCCESS FACTORS
To achieve our mission we must...

| Deliver on time | Deliver scope within budget and authority levels | Deliver the project safely and in an environmentally sensitive manner (including sustainability) | Lead our people and develop them through the project ensuring that this is a positive and enhancing work experience | Engage positively with our stakeholders through proactive communication to ensure they are informed about the project | Continually improve the quality of everything we do during the project lifecycle | Realise the project benefits |

Deliver on time

Leading
% Workstreams Forecast on time
Lagging
% Workstreams Actual on time
Weeks ahead(+)/behind(-) overall programme

Deliver scope within budget and authority levels

Leading
%Workstreams Forecast on budget
% Risks with Decreasing Expected Value
Lagging
% Workstreams Actual on budget
Project Costs - % Total project over-spend/under-spend
Project Costs by Time - % budget spent by completion
% Overall Risk Budget spent

Deliver the project safely and in an environmentally sensitive manner

Leading
No of HSE Improvement Notices
No of HSE Prohibition Notices
No of NCRs
% NCRs closed out as agreed
No of Environmental Complaints
No of Safety Tours undertaken by Leaders
Lagging
AFR
No of Environmental Incidents
Waste vs Materials Bought In Tonnage
% waste recycled either to other parts of project or to other projects

Lead our people and develop them

Leading
No of days training provided as part of project
Work Life balance - % weeks worked more than 48? hours
Response Rate to Project People Survey (PPS)
Lagging
PPS – Satisfaction Index %
PPS – Teamwork & Leadership %
PPS – Values Response %
PPS – Work Life Balance Perception
Employee Turnover
Absenteeism

Engage positively with our stakeholders

Leading
No of Actual vs Planned Consultation Events
Consultation Process – views taken into account
Lagging
Stakeholder Perception Survey Results %
No of column inches
Positive vs Negative column inches
No of external Complaints
Average turnaround time for complaint resolution
FOISA Request Average Turnaround Time

Continually improve the quality

Leading
Quality NCRs
£ variation/change orders
£ re-work
Lagging
Actual savings realised through VE
Customer Satisfaction Index %

Realise the project benefits

Leading
Travel Time, Patronage and bus service modification predictions
Traffic diversion, congestion and delays predictions
Expected impact on local economy
Lagging
Travel Time, Patronage and bus service modification actual vs predictions
Traffic diversion, congestion and delays actual vs predictions
Actual impact on local economy
ULTIMATE PROJECT EVALUATION (Close Out Report)
Contribution to Stakeholder/ Statutory Performance Monitoring Indicators

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2.3 KPIs

To allow for easy tracking of achievement against the KPIs indicated within the above graph, a reporting table will be produced and used to monitor results on a period basis. This will be made available to the whole team and contractors and will be available on the ETP extranet.

All parts of the team, including contractors and consultants will be asked to collect and report on this data.

2.4 Project Definition

2.4.1 Functional Specification

A Functional Specification has been prepared for the project and approved by Transport Scotland and CEC. This can be found on the ETP extranet. The Functional Specification details the following:

- background to the project & project history,
- objectives & benefits,
- geographic boundaries and interfaces
- system capability
- operations and control functionality
- operational integration with bus
- project constraints
- project workscope
- maintenance & performance effects and requirements
- safety & environmental effects and requirements

The currently proposed phasing of implementation and the scope of this PMP is:

- Phase 1a: Airport to Newhaven

- Phase 1b: Haymarket to Granton Square, which provides much needed access to North Edinburgh and the Waterfront area.

- Phase 2: Waterfront Section, enabling through running of trams past Newhaven to Granton.

- Phase 3: Ingliston to Newbridge, which opens development opportunities in west Edinburgh under the West Edinburgh Planning Framework. Future funding will be closely linked with the continued expansion of the city and the associated opportunities for private sector contributions.

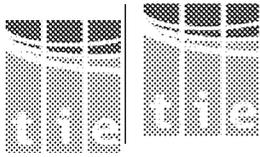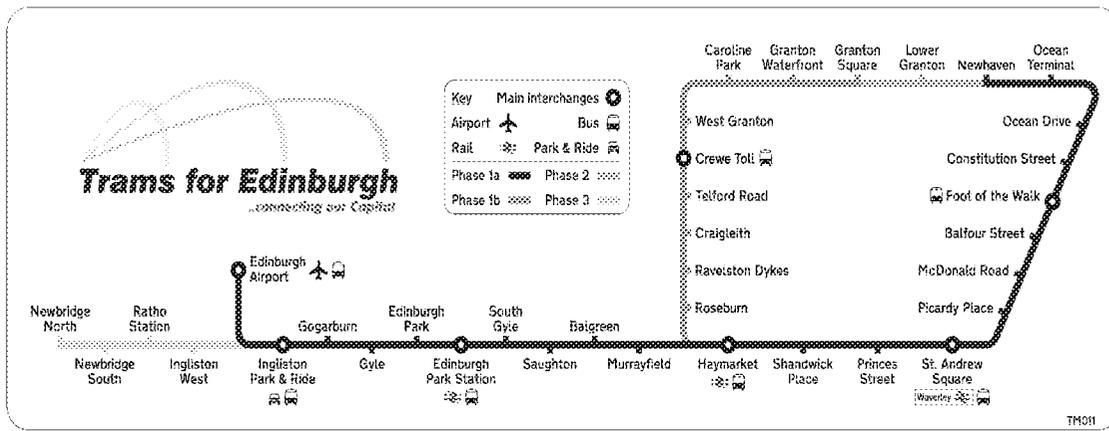| DOC.NO.	VERSION	STATUS	DATE	PROJECT:	SHEET
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Figure 2.1 – ETP route map with Tram Stops

2.4.2 Key Project Assumptions

As well as the constraints identified in the Functional Specification document, the following assumptions have been identified for the project:

- Phase 1a will be open for passenger service by ~~Christmas~~December 2010 and 1b by ~~Christmas~~December 2011

- Project budget is £545m for Phase 1a

- Project funding is released to the project for defined contract awards and at key milestones. Details of funding structures are to be agreed with TS and CEC.

- Continued political support and willingness from the client and sponsor to the project

- The introduction of a viable tram system in Edinburgh will require:
  - ~~a yet to be defined level of~~ achieving a balance of traffic priorities for Tram and other road users
  - achieving full integration of TEL bus & tram as a single transport network

- Network Rail possessions can be secured and protected to enable construction of the tram infrastructure adjacent to, and over/under, the railway

- All required consents and approvals process are agreed and fixed, and are efficient, thorough and accountable

- Adequate resources are applied by CEC to expedite land and property purchases, and all necessary consents and approvals within the milestones defined in the project baseline master programme~~?~~

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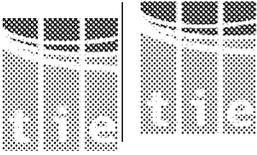
- The Traffic Regulatory Order statutory process is not inappropriately delayed by external influences and maintains the programmed completion of July 2008

2.5 ——Project Breakdown Structures

2.5.1 Organisational Breakdown Structure

The project will be organised to deliver the project in a matrix style organisation. A series of workstreams and contracts have been identified and will be managed by workstream project managers. Supporting these workstream project managers (project managers) will be functional managers responsible for finance, procurement, HSQE etc. These workstreams are:

Design

Procurement

Delivery

Commercial – including Project Controls, cost control and programme management

HSQE

Finance

HR

Stakeholder and Communications

This structure will be reflected in the work breakdown structure for the project to ensure delegated authority, empowerment and accountability.

2.5.2 Work Breakdown Structure

The ETP Programme has been developed by identifying and applying a Work Breakdown Structure supplemented with an Activity Coding system encompassing both a Phased and Geographical identification.

The Project has been split-up by Work Breakdown Structure into 12 (twelve) separate phases as listed.

Development
This covers all activities associated with the Business Case, Procedures, Procurement Strategy, Parliamentary Process's, and commercial items.

Land and Property
This covers all activities associated with Land purchases, protocols, General Vesting Declarations and compensation claims with CEC and land owners.

JRC
This section covers all activities associated with patronage, revenue, road traffic modelling and the wider area impact of tram.

SDS
This sections covers all activities associated with Requirements Definition, Preliminary and Detailed Design including preparation of road traffic management items such as TTRO's (Temporary Traffic Restriction Orders) and TRO's (Traffic Restriction orders).

DPOFA

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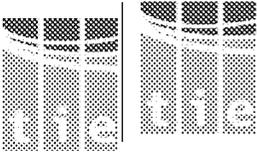
This section covers all activities associated with the operator, including development of operating documentation, recruitment, training and commissioning activities.

Advance Works
This sections covers all activities associated with works that are not part of the MUDFA contract but have been identified as works that can be done ahead of the full Infraco works and provide a programme benefit to reducing programme duration risk.

MUDFA (Multi Utility Diversion Framework Agreement)
This sections covers all activities associated with Utility Diversions ahead of the main Infraco contract.

INFRACO
This sections covers all activities associated with the main construction contract including track, structures, OHLE, power etc.

Tramco
This sections covers all activities associated with the purchase, manufacture and delivery of trams.

System Wide As-Built Design
This sections covers all activities associated with the capture of the final as-built design for future reference.

Project Wide
This sections is being utilised to capture all activities that have a budget impact across the whole project i.e. **tie** staff

Costs and Resources

Resources for 2 (two) of the main contracts awarded so far (JRC and SDS) have been allocated at activity level to reflect the budgeted cost for these contracts and to provide a comparative of progress against cost as well as against man-hours.

The intention is to man-hour load the remaining main contracts for DPOFA, MUDFA, INFRACO and TRAMS down to activity level to ensure accurate progress can be reported.

Work Breakdown Structure (WBS)
As mentioned above there are 12 main phases. Below these a detailed WBS has been developed that splits the main contracts of SDS, Advance Works, MUDFA, INFRACO and Tramco into geographical Sections, Intermediate Sections and Sub-Sections (Tram Stops).

Activity Coding
A mandatory set of activity codes will be developed by **tie** to ensure uniformity in reporting functions, these will typically constitute the first 15 (fifteen) activity code fields in all Primavera submissions and are identified in a Level 5 document to be found on the ETP extranet.

2.5.3 Cost Breakdown Structure

This section sets out the purpose of the Cost Breakdown Structure (CBS).

Purpose of the System

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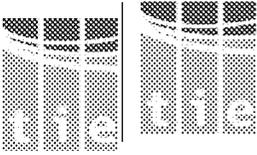
The CBS provides a consistent, organised, numeric breakdown of the ETP workstreams throughout the life of the project. This standardisation is used in the development, collection, organisation, and reporting of project data as required.

The CBS is used during the estimate stage to organize the costs. As the detail of a project increases, more detailed levels will be developed and the estimates updated. If future workstreams are identified estimates will be prepared and a CBS number allocated.

Both Functional Managers (FM's) and Project Managers (PM's) will be allocated Specific workstream(s), reference number(s) and budget(s) apportioned/derived from the ETP estimate(s).

The FM's and PM's will be responsible for reporting upon variances between budget costs allocated to their specific Workstreams CBS and actual costs.

Coding Levels

The Tram CBS will consist of three levels of codes. The "first-level" codes, sometimes called "primary levels," represent the major cost categories e.g."1-**tie** Resources" and "19-Tramco" contract. The major components or categories of work for each of the primary levels are listed and assigned a "second-level" or sub-summary code e.g."1.01-**tie** Resources"

FM's and PM's may be allocated budgets at either "first-level" or "second-level" depending upon the complexity of the workstream. The levels may relate to both internal (**tie**) and external (contractor) costs at the "first-level" and "second-level". The "second-level" codes may be broken down to a "third-level" or fine-detail-level if required.

A list of "first-level" or "primary codes" are ~~contained in Appendix?? (Where are we going to put the Appendices right at the back or at the back of the section?)~~produced as a Level 5 document and can be found on the ETP extranet.

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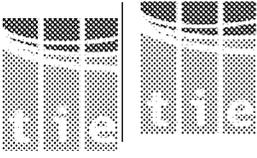
Who?

Who does what and how will tie work together?
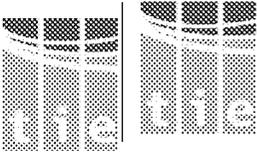
3.0   Governance & Project Organisation

This section of the plan describes who is working for, or is associated with, the Edinburgh TramN Project. It is broken down into the following five sections:

3.1 Governance: describes the arrangements of reporting, meetings and levels of authority for the organisations concerned with the ETP. This is broader in scope than just the meeting schedule of the project team and describes corporate governance in **tie,** TEL and the TPB governance arrangements for engagement with key stakeholders and a brief summary of political bodies whose jurisdiction covers the area and scope of the ETNP.

3.2 Edinburgh TramN Project Team: explains how the project team have organised themselves in the delivery organisation, **tie.** This structure includes consultancy appointments which have been made to support the client in specialist areas. Key posts are described in more depth, and its reporting lines through the organisation are clear.

3.3 Contracts: explains what contracts are in place or will be put in place to manage the project to a successful conclusion

3.4 Stakeholders: briefly describes how the ETNP will manage and engage with people, companies and organisations that are interested in or affected by the scheme.

3.5 Interface Projects: briefly describes how the ETNP will manage and engage with projects having a direct interface and possible impact on the successful delivery of the Tram project.

3.1   tie Governance

3.1.1   tie Corporate Governance

tie is the organisation responsible for delivering a successful ETNP for Edinburgh. To ensure proper control of the processes and people the internal structure outlined in Figure 3.1.1 is in place.
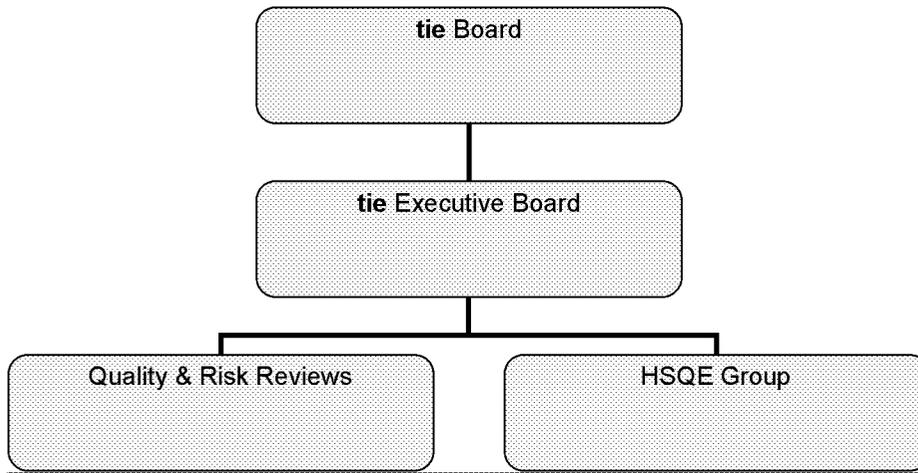
Figure 3.1.1 – tie Corporate Governance Structure
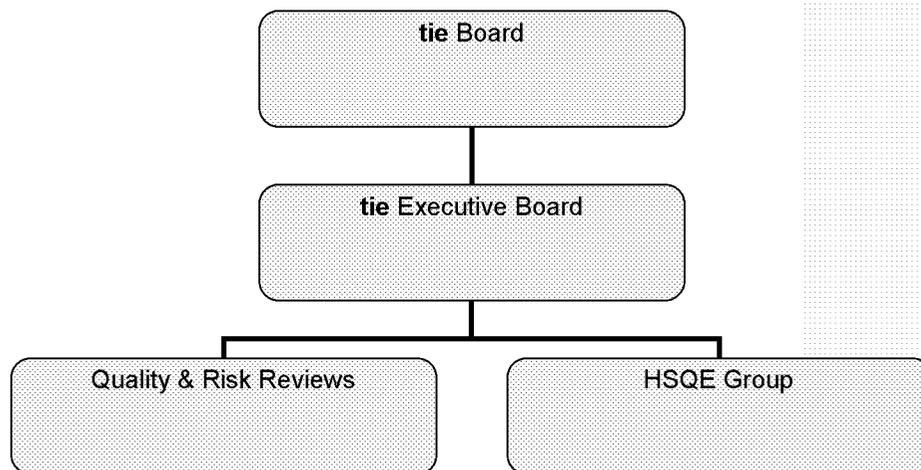
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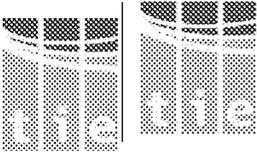
tie Board - the **tie** Board retains a specific role. These are

1) to apply quality assurance to the execution by the Tram Project Director and his team;
2) to make formal funding requests to TS via CEC and be accountable for expenditure; and
3) to enter into contractual arrangements necessary to execute project delivery.

It is anticipated that the **tie** Board will place reliance on the governance processes executed by the TPB, details of which can be found in section 3.1.2, in assessing the work required to execute their own responsibilities. There will be a formal report monthly to the **tie** Board. The reporting arrangements are set out in the **tie** Board remit.

tie Executive Board - accountable for the day to day management of the organisation

Quality & Risk reviews – a **tie** process for reviewing overall progress of the individual projects on a monthly basis, reviewing cost, programme and risks. The project will be scrutinised monthly by the Quality & Risk Review team and reported monthly to the **tie** Executive Board.

HSQE - overall safety meeting for the organisation reviewing safety management across the organisation premises and projects. The project will be represented at the HSQE meeting.

Neither QRR nor HSQE have any powers in relation to the Tram Project Board.

3.1.2 ------Tram Project Governance

The Tram Project Board (TPB) is independent to **tie** as is the TEL Board. The delivery of Edinburgh's integrated transport system has the following key players:

1. CEC was the Promoter of the Tram Bills, will be the user of the output from the project and is part-funder of the project
2. TEL was created by CEC to deliver an integrated bus and tram system

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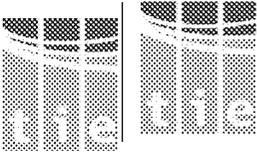
3. **tie** is the delivery agent for the tram as specified by its client CEC acting through TEL
4. Transport Scotland (TS) is the principal funder

Agreed structure - August 2006

The current agreed governance structure is outlined below. It is anticipated that a revised structure will be required to execute the construction phase of the project.

- TEL Board
- Tram Project Board (an independent body with authority delegated to it by CEC and by TS ("TPB"))
- TPB sub-committees as required, such as :
  1) Business Planning, Integration and Commercials ("BPIC") ;
  2) Design, Procurement and Delivery ("DPD") and
  3) MUDFA.

These may change over time as the project progresses into delivery. They are established in line with emerging requirements of the project and have no general delegated authority but can be assigned authority for specific matters by the TPB.

Remits for each of the primary bodies are available. In summary, their roles are as follows:

TEL Board

The role of the TEL Board is focussed on its statutory stewardship role and on its overall responsibility to deliver an integrated tram and bus network for Edinburgh, on behalf of CEC. It will make the formal recommendations to CEC on key aspects of the project including business plan and business case approval, contractual commitment and matters which have a political dimension.
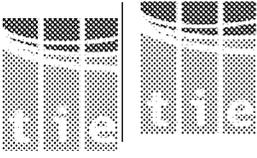
Tram Project Board

The TPB is established as an independent body with delegated authority from CEC and TS to execute the project in line with the remit. There are certain matters that have been reserved by CEC and TS. These will be identified in the Tram Delegated Authority Rules which will be stored on the Tram Extranet. In summary, the TPB has delegated authority to take the actions needed to deliver the project to the agreed standards of cost, programme and quality within these Delegated Authority Rules (DAR's). The TPB also exercises authority over project design matters which significantly affect prospective service quality, physical presentation or have material impact on other aspects of activity in the city. Certain matters are reserved by TS and CEC, as described below. The Tram Project Director (TPD) reports to the TPB and has delegated authority from the TPB to execute, and in turn delegate, on day to day matters to his tram project team.

The **Project Client** is accountable for the success of the project, owner of the business case with the Tram Project Director, and defining the required scope to deliver the benefits. The Project Client will have clear authority and accountability for delivering the project's business outcome.

Sub-committees

Execution workstreams will be categorised as either "Business Planning, Integration and Commercials" ("BPIC"), or "Design, Procurement and Delivery" ("DPD"). The BPIC programme is under the direction of TEL management. The DPD programme is under

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the direction of the Tram Project Director. There are critical linkages and dependencies which the two programme directors must manage effectively. At operational level, CEC, TS and Transdev have key involvement in many of the workstreams. This structure should encompass all workstreams and approvals needed to deliver the integrated system. In particular, the two programme leaders must ensure that all other project-related activities ("influencing groups") are fully aligned with the governance structure documented in this paper, or bring any parallel activities to the attention of the TPB for action to be taken.

The role of the sub-committees is to challenge and filter workstream outputs and provide recommendations to the Tram Project Board. Membership of sub-committees will be partly a sub-set of the TPB and partly additional advisers and stakeholder representatives. It is also likely that membership will vary according to the subject-matter on the table. The sub-committees have no delegated decision-making authority (except as specifically delegated by the TPB) but will be required to make recommendations to the TPB.

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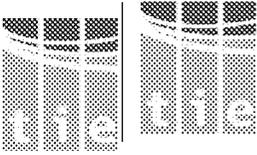
3.2   ──The Edinburgh TramN Project Team

3.2.1   Project Leadership

The ETP Team will be led by the Tram Project Director responsible to the TPB and supported by a matrix organisation shown in ETP Organagram (reference). The ETP will be led on a day to day basis by a core team based in **tie**'s office at Citypoint Offices, Edinburgh.

Figure 3.2.1 – ETP Organogram
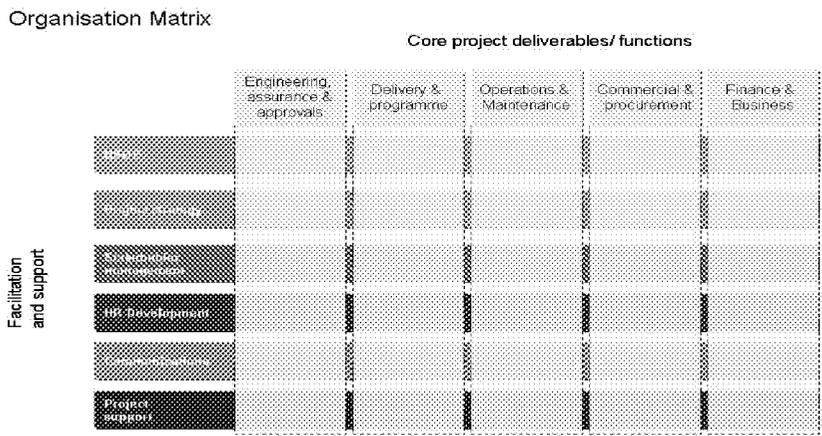
The key management personnel for the project are the Edinburgh Tram Leadership Team as follows:

1. Tram Project Director (TPD)
2. Delivery & Programme Director (Deputy PD)
3. Commercial Director
4. Engineering, Approvals & Assurance Director
5. Operations & Maintenance Director
6. Head of Finance & Business Case

- The **Tram Project Director** is accountable for the success of the project and has clear authority and accountability for delivering the project's business outcome, as well as delivering the project in line with the agreed objectives in line with the project DAR's.

- The **Delivery Director** also acts as the Deputy Project Director and is responsible for operational delivery of the project and management of all the major delivery contracts. The Delivery Director has a team of workstream Project Managers to assist with this along with commercial, site and safety support.

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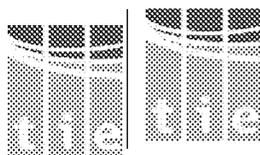
- The **Engineering, Approvals & Assurance Director** is responsible for the development, design and approvals phase of the project. Included in this is responsibility for the traffic management plans.

- The **Commercial Director** holds responsibility for all commercial activities including budget management, planning, project controls, procurement and information management.

- The **Operations & Maintenance Director** manages the operator, Transdev and provides input into design and procurement in relation to these functions.

- The **Head of Finance** is responsible for reporting to TPB etc and for overall financial reporting and control as well as any alterations to the business case.

Within this matrix organisation key supporting roles include Project Strategy, HSQE, Stakeholder Management, Communications, HR and Project Support.

These roles form the Leadership Team who meet weekly to review progress with the project and take action to progress potential delays.

Each member of the core team has a team of either Project Managers and/or Functional Managers. The Project Managers manage specific projects which together make up the delivery of the overall project, whilst Functional Managers both support and police the Project Managers in the areas of budget, risk, programme, HSQE

Project Managers are responsible for their budget, programme, risk & HSQE.

The Tram Project Director holds monthly reviews with each Functional and Project Managers to review the monthly FM and PM reports covering budget, HSQE, programme and risk.

The **tie** project team comprises a combination of **tie** permanent staff and consultants brought on specifically for this project. **tie's** in house resources will provide much of the team from Project Management through to Design Management. The wider team includes all consultants and stakeholders working with **tie** to deliver the ETP.

3.3 Contracts

tie has entered into, or will enter into, a number of contracts to assist with the overall delivery of the project, managed by specific roles within the organisation as follows:

Project Development and Approvals Director	Delivery Director	Commercial Director	Stakeholder/Comm.s Manager	Finance Director
SDS	DPOFA	Legal	PR & Communications	Finance
TSS	MUDFA			JRC
	INFRACO			PUK
	TRAMCO			

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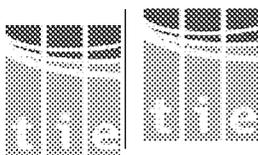
The following consultants will work side by side with **tie** to ensure successful delivery of the project:

Technical Support Services (TSS)

The resources provided under this contract facilitate design and project management, and allow for continuity post novation of SDS to the INFRACO. These resources will also be critical for testing, quality, safety and environmental management. **tie** has appointed Scott Wilson Railways to this position who sub-contract Turner & Townsend.

System Design Services (SDS)

A key strand of the Procurement strategy was the early involvement of the design contractor. The design contract or System Design Services (SDS) contract was awarded in September 2005. This contract allows **tie** to advance design work for sensitive sections of the tram route, thereby reducing the planning and estimating risks to which bidders for the infrastructure contract are exposed. It also facilitates the opportunity to procure advanced works on utility diversions and identify at an earlier stage the land requirements and traffic regulation requirements, both temporary and permanent, of the identified network scope. **tie** has appointed Parson's Brinkerhoff to this position who sub-contract Halcrow, and other sub-contractors.

Development, Partnering and Operating Franchise Agreement (DPOFA)

tie have appointed Transdev to the role of Operator for the Tram system in Edinburgh. Early appointment of the operator allows them to input to the design process and bring their expertise to the development of the project.

Joint Revenue Committee (JRC)

As part of the process of coordination and integration of buses and tram, a Joint Revenue Committee ("JRC") was established with the objective of the development, testing and successful commissioning of a Modelling Suite to support the viability of the Tram Business Case and ongoing revenue forecasting for TEL. Part of JRC's remit is traffic modelling and in particular the wider area impacts modelling. The JRC contract was awarded to a joint team of Steer Davies Gleave and Sir Colin Buchanan & Partners, and they provided the Modelling Suite to **tie** in August 2006.

Multi Utility Diversion Framework Agreement (MUDFA)

tie has directly let MUDFA to divert utilities, which will allow the majority of the utility diversion works to be carried out on the major utilities' assets by a single contractor under a single contract. This will help minimise cost and disruption to the public and to road users, whilst maximising construction productivity. The utilities affected are waste water, potable water, gas, telecommunications and power.

**Infrastructure Contract (INFRACO)**

tie will procure a turnkey contractor to procure, manage, design, construct, test and commission the overall tram network for Edinburgh. The SDS contract will be novated to Infraco, as will the Tramco contract, giving sole responsibility for delivery of the system to one body.

Tram Contract (Tramco)

tie will procure the supply and maintenance of trams directly and then novate this contract to the infrastructure provider to create a single point of responsibility for delivery and integration of the Tram system in Edinburgh.

Legal, Financial and other advisors
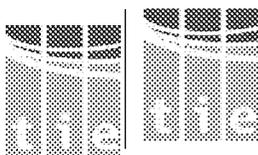
DLA continue to provide primary legal support to the procurement process and delivery of contract documentation. Dundas & Wilson are now providing extensive medium term legal support in specific areas such as Traffic Regulation Orders (TRO's) and planning.

PricewaterhouseCoopers continue to provide financial advice in respect of the procurement process and Business Cases. PR & Communications consultancy is provided by Weber Shandwick and Media House. **tie** also continues to work closely with Partnerships UK on a consultancy basis.

3.4   Stakeholders

There is recognition that tram construction will cause varying degrees of hardship to different people. Equally the project will bring many benefits to people and these benefits are quantified in the Draft final business Case (DBFC). As these people will be **tie's** stakeholders it is, therefore, imperative that the project takes on board the needs, expectations and perceptions on internal and external stakeholders.

To try to manage everyone's views on ETP a stakeholder management plan exists.   This aims to group people with common perceptions together (by geographical area and interest). Figure 3.4 below shows the high level structure of how stakeholders will be managed by the team.   Further definition of stakeholder management is contained in the Stakeholder Management Strategy in section 6.5 and also the Stakeholder Management sub-Plan for the ETP.

Figure 3.4 - Schematic of ETP Stakeholder Groups
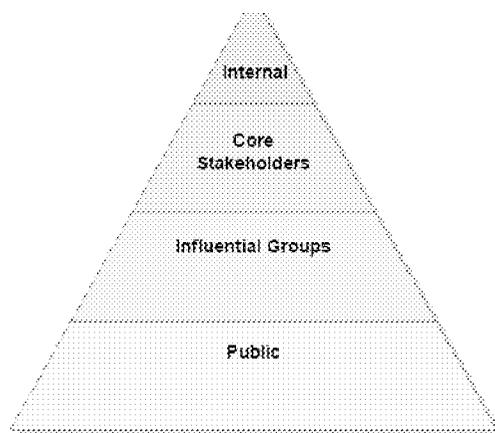
Internal Stakeholders are defined as those groups or individuals working for **tie**. This includes employees and consultants who have been engaged on the ETP. This group includes SDS, TSS and Transdev.

Core Stakeholders are defined as those key stakeholders who will be central to the stakeholder liaison throughout development of the scheme. This is split into 2 groups. Group 1 consists of CEC, TEL and Transport Scotland. Group 2 includes local and national government (the Scottish Executive, local MSP's, Network Rail, BAA, First ScotRail, Forth Ports, utility companies and key commercial developers along the route. Some of these bodies are represented on the Tram Project Board and provide essential support to the development of the scheme.

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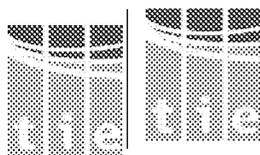
For the ETPN, **Influential Groups** are defined as those bodies who are impacted by the scheme but do not constitute one of the Core Stakeholders. Influential Groups may be large mature organisations such as Friends of the Earth or recently formed groups who are focused on one specific issue. It is crucial that the ETP Team continues to engage properly with Influential Groups.

The **Public** as a stakeholder represents everyone who might be impacted by the ETP. Whether we work for a particular company or are a member of a certain group which falls into the categories above, individual views are still important, and if the ETP is going to achieve its objectives these must be recognised. The people of Edinburgh should consider themselves stakeholders of the ETP. The scheme represents a brilliant opportunity to bring about positive change to communities in and around the city, while improving and enhancing the journeys of ten's of thousands of people every day.

3.5 ——Interfaces

3.5.1 tie – CEC Interface Protocols

Interface Protocols between **tie** and CEC have been developed in draft form representing the current state of development of the protocols between CEC and **tie** for the ~~Edinburgh Tram~~ETP. However it is likely that these documents may change in due course. These protocols are Level 4 documents to be found on the ETP extranet.

In developing the protocols there is recognition by both CEC and **tie** that a clear understanding of the respective responsibilities, timescales and requirements of the two organisations with respect to interface activities is crucial to the smooth delivery of the tram project. It is further anticipated that the development of these protocols will aid the understanding of resource requirements and programming issues going forward within the project.

3.5.2 Stakeholder Interfaces

This will be dealt with under the Stakeholder Management Plan.

3.5.3 Third Party Agreement Interfaces

A number of agreements have been put in place, or are in the process of being put in place, with key third parties such as Network Rail, BAA, Forth Ports and all the major utilities to facilitate the design process both from an access to land viewpoint in terms of the actual siting of the tram network, and in terms of agreeing the responsibility for and management of utilities diversions works. **tie** appoints a project team member to act as the project liaison wherever a third party agreement is in place. These agreements can be found on the ETP extranet but contain confidential information.

3.5.4 Projects

The functional Specification document identifies the projects that have an interface with Tram. **tie** appoints project team members to act as project liaison to interface projects and ensure that any potential impacts are identified and managed.

A register of all interface projects with the identified project liaison will be produced as a level 5 document.
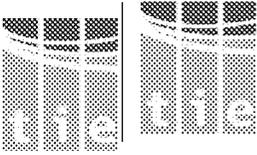
Project Management Plan

Trams for Edinburgh
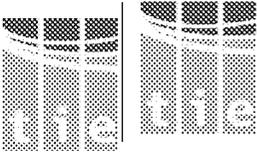
When?

When will the Edinburgh Tram Project be ready to carry passengers?

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4.0   **Programme Management**

This section defines how time and money will be managed and controlled on the project to ensure delivery within the programme timescales and budget allocated by **tie**. The overall programme maintained by **tie** is known as the Master Project Programme. The aim is to deliver Trams into revenue service on Phase 1a by Christmas 2010 and on Phase 1b by Christmas 2011.

4.1   ------Project Planning Process

tie will work with its contractors to develop an overall Master Project Programme. Each contractor is responsible for ensuring that services and any advance works are organised and programmed to meet the overall requirements of the Master Project Programme. They will update, maintain and amend (as required) the contractor's programme which will be coincident to and aligned with the Master Project Programme. The information from any appointed contractor's schedule will be summarised on a stand-alone Primavera licence, electronically submitted to **tie**. Summarisations will be manually introduced into the Master Programme by **tie**.

The WBS for the project is designed to run from commencement of design through to the opening of the Edinburgh Tram to public service scheme handover and project close out. The WBS will be segregated into both work type within discipline to enable proper control, and Sections, Intermediate Sections and Sub-Sections to assist the monitoring of progress along the ETP to aid integration of design, construction and commissioning.

Contractors and **tie**'s PM's will ensure that tasks within the programme are logically linked to ensure a critical path is derived and clearly show any <u>internal and external</u> dependencies, constraints, holds and checkpoints that contractors believe are required for the successful completion of the project. Furthermore, contractors will ensure that all tasks on the programme are resourced and coded to an agreed coding structure to show the manpower required to complete the project on time. However, if this is not possible in all cases, then generic skills and professions that are required for each task shall be clearly stated.

The ETP Master Programme (MP) will be created using Primavera Project Manager P3e – version 5 with service pack 2 (SP2) installed. The plan is to be constructed in such a way that a monthly progress reporting can be implemented and reported via Progress S-Curve and traffic light dashboard reports which are driven by information within the programme. These reports will be supplemented by a full written report.

4.2   ------Master Project Programme

The Master Project Programme for delivery of the ETP is summarised in Appendix D. This programme represents the key stages within the overall timeframe for completion of the ETP. The programme will be signed off to demonstrate each party's commitment to the achievement of the project milestones - successful delivery of the ETP in line with this programme will require the commitment and buy-in of all parties throughout the project.

4.3   **Programme Milestones**

The project will be measured against the project milestones listed in Table 4.1.These milestones are also reflected in the Master Project Programme.

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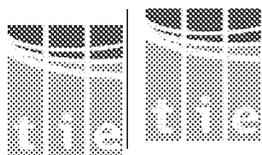
Project Management Plan

Table 44.1 – Major Milestones on the Master Project Plan

Milestone	Original Completion Date	Actual Completion Date	Projected Completion Date	Status
Award SDS		19th Sept. 05		Completed
Award JRC		15th Sept. 06		Completed
TL1 Achievement of Royal Assent	31st Dec. 05	22nd Mar 06		Royal Assent granted on 8th May 2006
TL2 Achievement of Royal Assent	31st Dec. 05	29th Mar 06		Royal Assent granted on 27th April 2006
Design Requirements Definition	31st Dec. 05	21st Apr 06		Completed
Submission of Outline Business Case	28th Feb 06	8th Mar 06		Submitted 8th March
Completion of Preliminary Design 1	31st Mar 06	28th Jul 06		Submitted to **tie**-under review
Completion of Preliminary Design 2	n/a		26th Mar 07	
Completion of Detailed Design	28th Feb 07		31st Oct 07	
Award MUDFA	28th Apr 06	22nd Sept. 06	2nd Oct 06	Complete
Award INFRACO	29th June 07		11 Oct 07 + 10days Cooling Off = 25th Oct 07	Rescheduled following integrated programme review.
Award TRAMCO	29th June 07	19th March 07	As above	Actual award may to now run concurrently with Infraco award
Commencement of Construction for depot			Earthworks 18 May 07 – 28 Apr 08	Being held out by TRO Judicial Process Periods, could start 04/01/08. Projected for completion 20th Nov 2009
			Depot Build 29 Apr 08	
Commencement of Remainder of route – 1b	29th June 09		June 2011	
TRO process complete			29th Aug 08	
Scheme Operational 1a			Dec 2010	Sectional opening 1a open to passenger service

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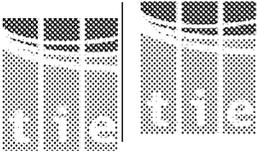
Scheme operational 1b			Dec 2011	~~Full System Opening~~1b open to passenger service

4.4 ------Design Development and Procurement Programme

The Master Project Programme reflects the project milestones until the ETP~N~ is operational and carrying passengers. This is useful in providing the timeline that project stakeholders can expect, but does not help us deliver the next phases of the project. To do this a more detailed programme has been developed by **tie** for the Design Development and Procurement Phase. This has been developed by the SDS by way of a more detailed design programme.

The Design Development and Procurement Programme Project Definition phase has been planned in detail by the ETP Team. As with the Master Project Plan this will be signed off by the Project Team to reflect their commitment to the project.

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Project Management Plan   **Trams for Edinburgh**
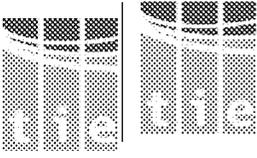
How Much?

How much will the Edinburgh Tram Project cost to deliver?

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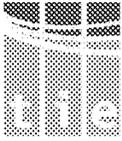
5.0   Cost Management

It is a key objective that the ETP is delivered in an economically efficient package. Economic efficiency demands thorough forecasting, planning and control of budgets throughout the delivery of the project.

5.1   Funding

Discussions between CEC and TS have focused on the capital funding available and which sections of the tram network can realistically be afforded as a first phase of the network. TS has made an in-principle commitment to indexation of the original £375m grant. The indexed grant will amount to approximately £500m, subject to the presentation of a satisfactory Final Business Case.

CEC has committed to contribute £45m towards the capital cost of the project, to be structured in a manner which minimises financial risk. Again the commitment is subject to the presentation of a satisfactory Final Business Case.

5.2   Project Estimate

Project estimates are reworked at principle points of the project as follows:

- Inception
- Feasibility
- Preliminary Design
- Detailed Design and
- Tender

Once reworked estimates are approved ~~perat~~ <ins>at each</ins> point the Project Estimate Baseline will be adjusted ~~against which the project???? ???? are?????? and charge unit rate applied.~~ <ins>. Any subsequent changes will then be assessed against this baseline.</ins>

The Current Project Estimate is £592.4 million (this amount includes monies for Risk and Optimism Bias). The Current Project Estimate is allocated £~~512.~~<ins>2500</ins> million to Phase 1a and £9.~~32.~~4 million Phase 1b. This is the baseline against which future changes will be measured.
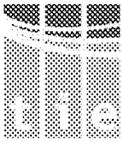
5.3   Cost Plan

The ETP will use a Cost Plan to enable the effective management of costs throughout the project lifecycle.

The Cost Plan will be built up in a way that integrates fully with the Master Programme for the project – each activity or item will be given a WBS (Work Breakdown Structure) code (see Section 2.5.2).

Building up costs in this way helps to ensure that:

- All costs are identified early in Project Development;

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- Costs for the same activity or item are not double counted or omitted;

- As the project evolves, the Cost Plan can be regularly updated to provide an up to date revised forecast;

The structure of the Cost Plan will be developed in conjunction with the Master Programme.

5.4   Project Estimate Process

The Project Estimate is updated by the Project Cost Manager with support form other members of the Project Team.

Optimism Bias value is determined by selecting the P90 confidence level to the Quantitive Risk Analysis Output.

5.5   Financial Reporting

The purpose of Financial Reporting is to provide a means by which delivery to budget is monitored and managed. The current financial position is updated and reported on a monthly basis. The project will move to 4 weekly reporting in April 2007. Each month the following are calculated for each workstream/Contract, with a cumulative total provided for the Project:

- Approved Project Estimate
- Authorised Budget for the Financial Year
- Project Anticipated Final Cost (AFC)
- Value of Work Done to Date(VOWD)
- Forecast VOWD to completion per month.

Changes from the previous months forecast (variances) are analysed and an explanation provided for these.

A summary of the above information is included is included in the Monthly Progress Report.

5.6

Risk

RiskRisks and their mitigation are managed in accordance with the Project Risk Management Procedure which can be found on the ETP extranet.

5.7   Change

Changes (See Project Definition for meaning) are managed in accordance with the Project Change Management Procedure and by reference to the Project Delegated Authority Rules procedure. These can all be found on the ETP extranet.
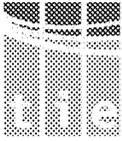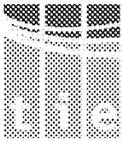
Project Management Plan   **Trams for Edinburgh**

How?

**How will tie work together
to achieve the Edinburgh
Tram Project objectives?**

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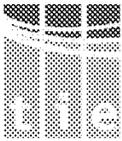
6.0   Strategy for Delivery

The following strategies outline how specific workstreams of the project will be managed and will be supplemented by detailed management plans. Communication throughout the team will ensure that everyone understands their role in these strategies and regular audit and review will pick up ion non-conformances and improvements that could be made.

6.1   ------Delivery Strategy Overview

6.1.1   Project Lifecycle

The project will be delivered in accordance with **tie** Project Management Procedures and Lifecycle. This is shown below in Figure 6.1. The project will be delivered against this lifecycle and assurance will be given at each Phase Review. The yellow highlighted phase displays the current project standing.

**Figure 6.1 – tie Project Lifecycle**

Project Phases	Project Stages
Definition	1. Output Definition
	2. Feasibility
	3. Option Selection
Design	4. Single Option Development
	5. Detailed Design & procurement
Build, Test & Implementation	6. Construction, Testing & Implementation
	7. Scheme Handback
Review	8. Project Close–out

6.1.2   Approval Gateways

Governance of the project will dictate that certain activities cannot commence until appropriate levels of approval have been gained. For Tram there will be 3 types of gateway as follows:

1) Internal stagegate review – this is determined by **tie**'s own Project Management Procedure (to be found on the ETP extranet) and relates to the lifecycle of the project. The procedure defines the type of information that should be available by the end of each stage of a project as defined in the table above and the review process will check that these deliverables are in place before moving onto the next stage of the process.

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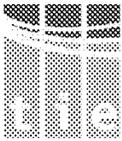
2) <u>Scottish Gateway Review</u> - **tie's** client body or key funders may demand that an OGC gateway is carried out before significant release of funding or entering into contracts

3) <u>Statutory approval processes</u> – **tie's** client and key funders will have certain approval processes that must be met prior to the project moving from one stage to the next, or impose certain restrictions upon the project due to political reasons.

Regardless of the type of gateway, these will all be identified and written into the overall project programme as constraints.
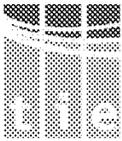
6.2   **Management Strategies**

The following specific aspects of the ETP are considered to be of such importance that they require separate documentation.

As such, more detailed sub-plans have or will be developed for these topics describing what will be done in detail. However, to give an indication of the way each subject or discipline will be approached a summary strategy has been prepared for each topic describing what will be done, why, and who will be involved.

Subjects or disciplines identified within ~~ETN's~~Edinburgh Tram's management strategies will be developed to a common standard and a common process. Where appropriate, existing **tie** procedures will be followed or slightly amended to suit the requirements of the ETP. Project Procedures will be kept up to date and a schedule of these stating where they may be found is included in Appendix C.

tie has Project Management Procedures in place that act as the umbrella for all other procedures in place or to be developed. These describe in some detail the way in which **tie** Project Managers will manage and control all of **tie's** projects, including Tram. The following sections provide an overview of the strategies and plans that are either in place or to be developed for ETP, and they provide the tools and guidance for ETP Project Managers in implementing and controlling all projects and workstreams under their control.

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6.2.1   Health and Safety Management Strategy

Objective

To ensure that the ETP reduces the level of risk to one that is as low as is reasonably practicable (ALARP), such that the Edinburgh Tram can be constructed and set to work, operated and maintained, and decommissioned and removed at some future date in a safe manner. This is in line with **tie**'s Health & Safety Policy which can be found on the **tie** Extranet.

Requirements

There are three requirements for safety. These comprise:

- Construction health & safety – as required by the Construction (Design & Management) Regulations 1994 (CDM Regulation);

- Tramway safety – as required by the Railways and Other Guided Transport Systems (Safety) Regulations (ROGS); and

- Road safety – as required by the Road Traffic Act 1988

The Approach

A Project Safety Management Plan (PSMP) which can be found on the ETP extranet, has been developed and complements the **tie** Health and Safety Management System and the **tie** "Safe**tie**" culture. It is supportive of the Project Objectives included within this Project Management Plan (PMP).

The PSMP will be underpinned by a number of Process Maps and Procedures which will define the detailed methodology that will be implemented on the project.

The PSMP identifies the activities and deliverables that are the responsibility of **tie** and its contractors, together with the interface with external organisations and stakeholders.

Tools and Techniques

Best practice techniques will be employed in accordance with industry standards. Proactive and reactive techniques will be used.

Proactive techniques will include monitoring and audit, including safety tours by senior members of the team...

Reactive techniques will include the review of project deliverables produced by **tie** and third party organisations.

Evaluation

The process maps identify the KPIs that will be used to measure and evaluate performance. These KPIs relate to **tie**, TSS and third party organisations. A report summarising the KPIs will be issued to the Tram Project Director on a monthly basis (or at a different frequency if activities the KPIs require).

Those Involved

The HSQ Manager will lead on health and safety issues TSS fulfil the role of Planning Supervisor under CDM for the project

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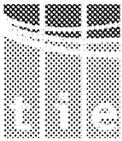
The HSQ Manager will appoint a member of the team to lead on safety assurance issues.

Every member of the Tram Project Team will be responsible for ensuring that health and safety issues are addressed in the work activities that they undertake.

The HSQ Manager will be responsible for the production and implementation of the HSQ Plan.

Responsibility

The project HSQ Manager will be responsible to the Tram Project Director.

6.2.2   Quality Management Strategy

Objective

To ensure that the ETP is designed, constructed and set to work in a manner that meets the specified requirements.

Requirements

There are 4 principal requirements for quality management. These comprise:

- Demonstration that the design, manufacture, construction, commissioning and setting to work of the Edinburgh Tram meets the specifications.

- Demonstrate that the project is being delivered in accordance with **tie**'s internal procedures and policies.

- Demonstration that the ETP is being managed in accordance with third party agreements and consents.

- Demonstration that the ETP is being project managed with due cognisance of time and financial considerations.

Quality management includes the requirements for quality control, quality assurance and quality improvement.

The Approach

A Project Quality Management Plan (PQMP) has been developed in line with **tie**'s Quality Policy. It is supportive of the Project Objectives included within the Project Management Plan (PMP).

The PQMP will be underpinned by a number of Process Maps and Procedures which will define the detailed methodology that will be implemented on the project.

The PQMP identifies the activities and deliverables that are the responsibility of **tie**, together with the interface with external organisations and stakeholders.

Tools and Techniques

Best practice techniques will be employed in accordance with industry standards. Proactive and reactive techniques will be used.

Proactive techniques will include monitoring and audit.

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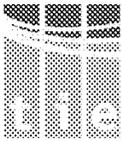
Reactive techniques will include the review of project deliverables produced by **tie**, the contractors and third party organisations including stakeholders.

<u>Evaluation</u>

The process maps identify KPIs that will be used to measure and evaluate performance. These KPIs relate to **tie**, the contractors and third party organisations. A report summarising the KPIs will be issued to the Tram Project Director on a monthly basis (or at a different frequency if activities the KPIs require).

<u>Those Involved</u>

The project HSQ Manager will lead on quality assurance issues.

Every member of the Tram Project Team will be responsible for ensuring that quality management issues are addressed in the work activities that they undertake.

The HSQ Manager will be responsible for the production and implementation of the HSQ Plan.

<u>Responsibility</u>

The project HSQ Manager will be responsible to the Tram Project Director.

6.2.3   **Environmental Management Strategy**

<u>Objective</u>

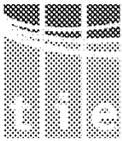To ensure that the ETP is designed, constructed and set to work with the minimum impact on the environment.

<u>Requirements</u>

Underpinning the PEMP is a suite of key environmental requirements and commitments that should be regarded as the fundamental base sources of information on the managed impact of the ETP on the environment. These are:

- Environmental Statement for Line One;

- Environmental Statement for Line Two;

- The Tram Design Manual;

- The Edinburgh Tram Noise and Vibration Policy;

- The Code of Construction Practice;

- The Landscape and Habitat Management Plan for the

  Roseburn Corridor;

- The Badger Mitigation Plan for the Roseburn Corridor;

- Agreements made with statutory bodies; and

- Parliamentary agreements.

As the tram design is developed, so the requirements and commitments made within these documents change or become more precise. Consequently the PEMP will necessarily undergo amendment and updating as necessary to reflect any changes to the tram design.

The Approach

A Project Environmental Management Plan (PEMP) is available in the ETP extranet. It is supportive of the Project Objectives included within the Project Management Plan (PMP) and the Code of Construction Practice.

The PEMP will be underpinned by a number of Process Maps and Procedures which will define the detailed methodology that will be implemented on the project.

The PEMP identifies the activities and deliverables that are the responsibility of **tie**, together with the interface with external organisations and stakeholders.

Tools and Techniques

Best practice techniques will be employed in accordance with industry standards. Proactive and reactive techniques will be used.

Proactive techniques will include monitoring and audit.

Reactive techniques will include the review of project deliverables produced by **tie**, and third party organisations.

Evaluation

The process maps identify KPIs that will be used to measure and evaluate performance. These KPIs relate to **tie**, TSS and third party organisations. A report summarising the KPIs will be issued to the Tram Project Director on a monthly basis (or at a different frequency if activities the KPIs require).

Those Involved

The HSQ Manager will lead on environmental issues.

Specific technical environmental issues will be the responsibility of the Environmental Specialist.

Every member of the Tram Project Team will be responsible for ensuring that environmental issues are addressed in the work activities that they undertake.

The project HSQ Manager will be responsible for the production and implementation of the PEMP.

Responsibility

The project HSQ Manager will be responsible to the Tram Project Director.


6.2.4   **Design Management Strategy**

Objective

To manage the development of the design of the Tram ensuring that:
1.   it complies with the Promoter's obligations and   commitments
2.   it complies with the Acts and Parliamentary Undertakings
3.   the system facilitates runtimes consistent with the Business Case
4.   it provides Value for Money
5.   it facilitates future enhancement / expansion of the system.

Requirements

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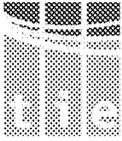
The ETP is complex and extensive covering both a wide geographic area both on-street and off-street and a variety of diverse workstreams including:

- Track Design
- Road Design
- Structures
- Overhead Line Equipment
- Traction Power Distribution and Substations
- Supervisory Control and Communications
- Utilities
- Depot
- Tramstops
- Environment
- Electromagnetic Compatibility
- Reliability Availability Maintainability and Safety (RAMS)
- Operability

The Approach

The Design Process has been broken into three phases:
1. Definition of the ETP Requirements (Requirement Definitions Phase)
2. Preliminary Design
3. Detailed Design

In the first phase, SDS developed the scope of works and technical specifications set out in the SDS contract and expanded them to detail the design work and obtaining all consents and approvals. In the second phase SDS prepared a preliminary design to meet the objectives detailed above in relation to each required workstream.

The third element will involve the detailed development of the approved Preliminary Design. The Design is being completed by SDS who have responsibility for achieving all consents and approvals. This process is being assisted and overseen by **tie** who acts as agent for the promoter, City of Edinburgh Council (CEC). As such **tie** have a responsibility to ensure that all aspects of the design are thoroughly reviewed to provide CEC with a validation that the design meets with the objectives outlined above.

Tools and Techniques

The Design Manager is assisted by a team of specialists covering the various disciplines through TSS contract and also Transdev. This team undertake ongoing liaison with their SDS equivalent ensuring CEC input throughout to the design process and subsequently undertake detailed review of all design submissions as they are issued to **tie**. A formal review and record process is set down to control this process and ensure that the SDS design team receive relevant input within appropriate timeframes to facilitate progress of the design.

Evaluation

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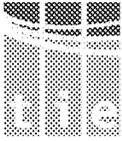
The evaluation of the design is measured through its ability to deliver the agreed and specified system functionality, be acceptably safe, constructible and deliver the functional requirements specification especially those related to the run-time, performance/reliability, integrated ticketing and safety.

Those Involved

The Tram Project Development and Approvals Director is assisted by the Design Manager and team (as noted above).

Responsibility
The Tram Project Development and Approvals Director will be responsible to the Tram Project Director.
The chain of responsibility will extend from individual members of TSS design team, who have individual day to day responsibility for interfacing with the SDS designers up through the Design Manager to the Tram Project Development and Approvals Director. As such everyone has a responsibility to ensure that the design process moves forward to achieve the set objectives.

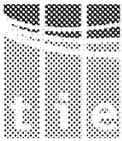### 6.2.5 Construction Management Strategy

Objective

To ensure that all construction works performed in the delivery of the infrastructure associated with the ETP are done in accordance with the contract, programme, current industry best practice and in the most timely, efficient and economic manner. All project objectives are to be achieved in a framework of safety for both operatives and the public.

Requirements

The Edinburgh Tram infrastructure comprises the following key components:
- Track
- Utility diversions
- Roads, including reinstatements
- Demolitions
- Piling
- Tunnelling
- Structures – new and refurbished
- Overhead Line Equipment
- Traction Power Distribution and Substations
- Supervisory Control and Communications
- Electrical/mechanical
- Utilities
- Depot
- Tramstops
- Environment
- Electromagnetic Compatibility
- Reliability Availability Maintainability and Safety (RAMS)
- Operability

- Testing & commissioning
- Interfaces with 3rd Parties and other projects

The broad diversity of scope of this project, its size and spread throughout the City of Edinburgh, dictates that the Construction Management requires a team comprising a broad skills and experience mix.

The Approach

The construction activities for the project will be delivered through two major contracts

- MUDFA

- Infraco

tie's approach will be to facilitate and enable the efficient working of these two contracts.   This will be achieved through the assembly of a team with the requisite skills and experience who will support, monitor, record, report on and interface with the contractors.   The team will carry out a programme of activities which will include

a)   Constructability reviews

b)   Development of specific construction procedures

c)   Monitoring the progress and achievements of the contractors

d)   Ensuring that the contractors comply with the agreed Code of Construction Practice

e)   Checking that construction activities are carried out with due consideration to the local environment and general public

The approach will be documented in the Construction Management Plan which is one of a suite of documents which supports the Project Management Plan.

Tools and Techniques

The activities detailed in the Construction Management Plan will be carried out using specifically designed procedures so that results can be captured in a consistent manner – e.g. constructability reviews will be carried out in accordance with a defined process and the results recorded on bespoke templates. A list of the main procedures applicable to construction is set out in the Construction Management Plan

Evaluation

Constructability reviews will be used to evaluate the readiness and suitability of design outputs for construction purposes.

The development of bespoke processes will provide the basis for audits of team compliance.   A programme of audits will be developed by the Quality Manager and agreed with teams with the objective of providing assurance that construction activities are being carried out efficiently, safely and to the desired standard.

Those Involved

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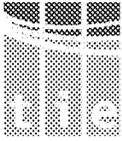
The Delivery Director and direct reports

The delivery teams.

The MUDFA contractor

The Infraco contractor

Responsibility

The Infraco Project Manager will lead on all construction matters under the direction of and reporting to the Delivery Director having ultimate responsibility for delivery.

6.2.6 Approvals Management Strategy

Objective

To streamline the approvals process and to mitigate the inherent risk in obtaining such consents in particular the Prior Approvals and traffic regulation orders, whether temporary or permanent, will be managed such that the approvals have minimal negative effect on both the cost and the programme to deliver the ETP.
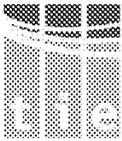
Requirements

The Acts gave the authorised undertaker i.e. CEC various powers including the powers to construct and operate the tram lines or any part of them either as a stand alone line or as part of a system.

However despite these wide ranging powers, various other consents and approvals are still required to ensure that all of the works have the necessary consents and to ensure that the tram can operate successfully.

The Table below lists the consents required, likely extent, consenting authority for each and an indication of the likely timescale for obtaining the consent

Rail	HMRI and Network Rail Consents	HMRI Network Rail	Iterative process through preliminary and detailed design stages
Aviation	Aviation and BAA Approvals	Planning Authority BAA	Iterative process through preliminary and detailed design stages

Project Management Plan

Trams for Edinburgh

Category			
Planning	Prior Approvals for buildings and OLE fixings Listed Building Consent for OLE fixings Advertising Consent. Full Planning Permission will be required for works not scheduled in the Bills. Conservation Area Consents - **not required**	Planning Authority	8 weeks minimum Plus 8 weeks – application can be dealt with through delegated powers or by Planning Committee
	Scheduled Monument Consent (egg Victoria Bridge)	Scottish Ministers & Historic Scotland	Plus Further time required if called in by Scottish Executive.
Traffic	Traffic Regulation Orders Temporary Traffic Regulation Orders	Roads Authority	Minimum of 12 months 8 weeks
	Road Construction Consent	Roads Authority	28 days
Environment	Water and Waste Water Connection Controlled Activities Regulations Compliance Controlled Activities Regulations Approval Controlled Activities Regulations License	Scottish Water SEPA SEPA SEPA	28 Days Not applicable
	SPA Notifications/Consents Protected species notifications/consents	SNH/Scottish Executive	Not Applicable
	Landscape and Habitat Management Plan	Planning Authority	Prior Approval of this is required in accordance with Acts of Parliament.
Structures Construction and Radio	Building Warrant for Depots	Building Standards	2 weeks minimum
	Technical Approval	CEC Building Standards, Roads, Bridges	8 weeks
	Works to safeguard buildings	Owner/occupier	14 days notice
	Business Radio License	OFCOM	None Given
Agreements and Undertakings	Third Party Agreements entered into will require to be met and the preliminary design phase will need to ensure these are fulfilled.	Agreement between **tie** and party	Details passed to designers as tracked through the programme
	Parliamentary Undertakings will require to be met and the preliminary design phase will need to ensure these are fulfilled.	Parliament	Details passed to designers as tracked through the programme
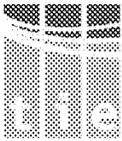
	Access Rights for survey purposes	Owner/occupier	First time for a site requires 7 days notice, then 3 days thereafter
Survey Work			

The Approach

General

Under the SDS contract, the obligation to obtain all consents and approvals has been passed to SDS and as part of the detailed design process, applications for Prior Approvals will be made to the Planning Authority. While it is appreciated that neither **tie**, CEC as the promoter or TEL can fetter the discretion of the Planning Authority, SDS has tried to minimise the risk that the need for prior approval adds to the project.

SDS has prepared an Approvals and Consents Management Plan (ACMP). SDS recognises that the success of the design process is ultimately dependent on achieving the necessary approvals and consents and the ACMP provides an overarching strategic document that defines all approvals and consents. It also allows the applications for all of the approvals and consents to be tracked from design development and pre-application discussions to the conclusion of the approvals and consents process.

Prior Approvals

The prior approval process for tram submissions was approved as an addition to CEC's Scheme of Delegation on 18 May 2006 by its planning committee. The report was approved by the full Council in June 2006. Further, SDS and the Planning Authority have agreed a protocol setting out the roles of both parties during the prior approval process, including the timescales for obtaining the consent, the deliverables and the criteria for referring an application to the planning committee for determination rather than it being considered under delegated authority. Template submissions and committee report have also been developed.

The Tram Design Working Group, which includes representation from Historic Scotland and the World Heritage Trust, is a forum where pre-application discussions can take place, again without fettering the discretion of the Planning Authority. This group was set up as part of the agreement between **tie** and Historic Scotland to allow them to withdraw their objection to the Bills and is intended to minimise the risk of objections from Historic Scotland and the World Heritage Trust to the prior approval applications. It is also ensures that CEC, Historic Scotland and the World Heritage Trust have an opportunity to participate in the delivery of a tram system which is integrated with the public realm and reflects the identity of Edinburgh. Test applications will be approved by the TDWG.

Temporary Traffic Regulation Orders

In respect of the Temporary Traffic Regulation Orders (TTROs) a strategy has been developed by **tie** and SDS to ensure that the necessary orders are in place for both the MUDFA and Infraco works. The strategy aims to maximise flexibility during the construction period and to minimise the risk of public confusion given the scale of the works.

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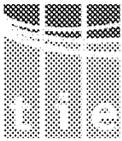
It is intended that one master TTRO is made for all tram works, including the utility diversion works. That order would specify
- all of the roads likely to be affected;
- all of the measures likely to be imposed;
- that any particular measure will be in force when signed on street; and
- the date on which the order will come into force and that it will remain in force for more than 18 months i.e. it will cover both the MUDFA and Infraco works.

An effective communication and publication process is an essential pre-requisite of this approach to ensure that road users are given adequate and reasonable notice of temporary road works and diversion measures in the interests of procedural propriety and road safety. Accordingly there will need to be a protocol developed as part of the tender process to deal with the communication strategy.

Traffic Regulation Orders

It is assumed that none of the construction works on-street can commence prior to the TROs being made. Accordingly, the TROs will be categorised into three types - core measures, direct consequential measures and indirect consequential measures.

Core measures are those measures that fall within the tram line envelope and, if that line is within a lane width of the kerb, then also those measures that fall within that lane. (The width of the lane will vary depending on its current function: (1) Parking up to 2m, (2) loading up to 2.7m, (3) bus lane between 3m to 4.7m). Direct consequential measures are those measures that fall outwith the core measures but within the LOD (excluding any 'showstopper' which would be considered core). Indirect consequential measures are all other measures. The intention is to prioritise the core measures.

The statutory public consultation, which is part of the TRO process, will not commence until after the elections in May 2006. Depending on whether a hearing is required, the orders could be in place, at the earliest, by July 2008

Tools and Techniques

The Approvals and Consents Management Plan, the Approvals Tracker and the various protocols which have been developed and agreed will ensure that the approvals are obtained as quickly as possible and with as few objections as possible.

Evaluation

Success will be measured in terms of the ease with which approvals are obtained and the nature of any conditions attached to the consents and approvals.

Those Involved

SDS will seek approvals on behalf of the project in accordance with their contractual obligations. The Project Development & Approvals Director, supported by the Design Manager, will monitor progress on behalf of the project team.
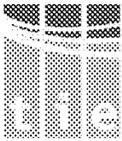
Responsibility

While the responsibility for obtaining consents rests with SDS, the Project Development & Approvals Director will be responsible for reporting to the Tram Project Director and, if required, the Tram Project Board.

6.2.7 **Stakeholder Management Strategy**

Objective

To define and manage **tie's** stakeholders, both internal and external, so as to enable the ETP to deliver a stakeholder strategy that meets the requirements of the overall project definition for trams.

The overall purpose of the stakeholder engagement is to drive the strategy forward to completion while recognising the key strategic contribution from stakeholders.

For this to happen, the strategy for stakeholder engagement will embrace the need for:

- Thinking and planning
- Preparing and engaging
- Responding and measuring

For these three criteria to be delivered there must be sufficient scope in the overall project delivery to incorporate:

Learning through identifying and understanding:
- The needs, expectations and perceptions of internal and external stakeholders;
- The challenges and opportunities identified by those stakeholders; and,
- The material issues of internal and external stakeholders.

Innovating by:
- Drawing on stakeholder knowledge and insights to inform strategic direction;
- Where possible aligning the final project with the needs of stakeholders.

Performing:
- Enhance **tie's** performance in project delivery by measuring what **tie** do and how well it is done

Requirements
A successful stakeholder strategy requires an engagement framework which will fulfil the objectives of this strategy and the primary purpose of the stakeholder management plan.

For this Stakeholder strategy it is recommended here that **tie** uses the guidance on the requirements for quality stakeholder management as shown below:

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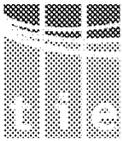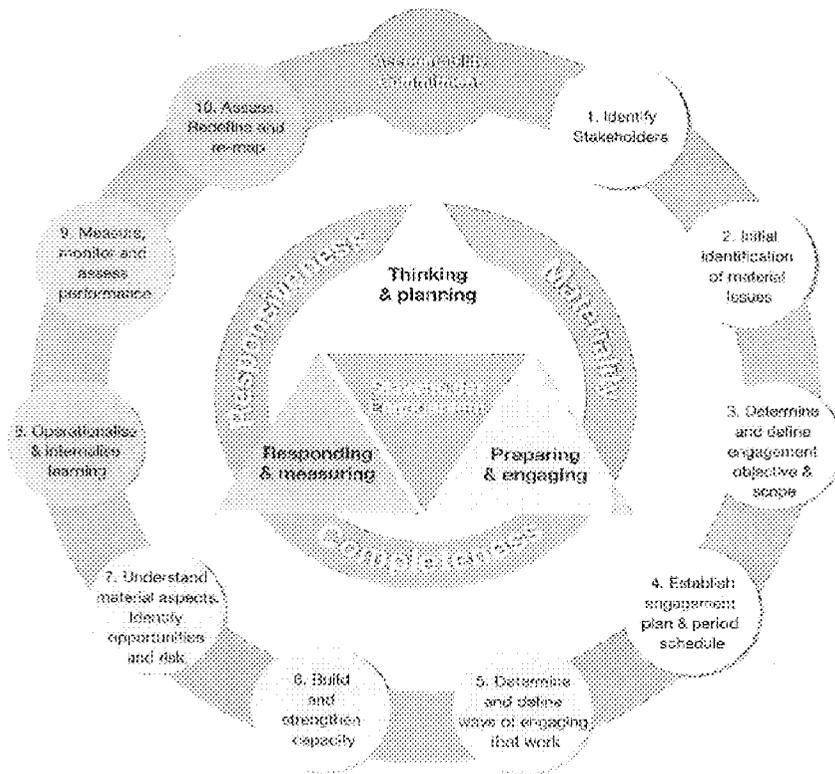
The Approach

A Stakeholder Management Plan has been developed to describe how the ETNP team will manage the interfaces with stakeholders throughout the project lifecycle. The plan will include:

- extensive stakeholder identification;

- analysis of each stakeholder or group of stakeholders and their requirements;

- The actions required to maintain support for the project or to gain approval at various stages.

Tools and Techniques

The Stakeholder Manager will compile a register of stakeholders. Training and awareness sessions will also be used to ensure project team members understand the importance of maintaining good stakeholder relations.

Workshops will be led by the Stakeholder Management team with the ETP Team to explore the requirements of particular stakeholders and how the project can best satisfy their needs.

A Stakeholder Management database will be used to manage this process.

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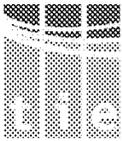
Evaluation

The success of the strategy and plan will be gauged by the ease with which the various consultation processes are carried out. Performance will be compared against similar projects for a sense check to identify if any omissions have been made.

Those Involved

The project Stakeholder Manager with support from the Delivery Director will lead this activity. However, it should be recognised that successful projects are not delivered by one person. Therefore, it is important that a range of project members will become involved with stakeholders at various stages through the project delivery – including those involved in Approvals and Consents, alongside an interface with SDS and other contractors. For this to happen successfully they will need to be aware of the prevalent issues at the time and where to find this information.

Responsibility

The project Stakeholder Manager will manage the interface with all stakeholders and will be accountable to the ETP leadership.

6.2.8   Communications and Consultation Strategy

Objective

tie aims to generate a sense of excitement and anticipation for trams in Edinburgh. Crucially we need to ensure that the level of understanding and the high expectations of the people of Edinburgh are managed through proactive communication in the lead up to, during and after construction.

The Communications team will convey enthusiasm and excitement about the introduction of trams to Edinburgh. The Communications team will encourage residents, visitors and businesses to 'buy into' the concept and physically and mentally 'get on board'. This level of engagement will be maintained throughout the construction period.

A robust and comprehensive approach to media, stakeholders and public engagement will be deployed. **tie**, and its partners, will engage at every opportunity to inform and support the residents, businesses and visitors to Edinburgh through each phase of delivery. **tie** will continue to promote the benefits that trams will bring to Edinburgh, ensuring that successful delivery is a key focus for everyone in the city.

Requirements

A successful communication strategy requires a framework of engagement in order to deliver all aspects of the strategy and meet the purpose of the communications strategy.

Best practice guidance along with innovative ideas will be used throughout the term of the project.

The approach & tools and techniques

tie's communications plan:
- 1. provides an approach to support and inform Edinburgh through each phase of construction and delivery
- 2. promotes the benefits of trams

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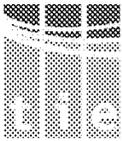
- 3. aims to mobilise support
- 4. promotes the competence of those delivering the network
- 5. breaks down each phase of delivery and details the activities and methods that will be used.

Methods have been tailored to the best channels to reach each specific audience. Traditional channels will be used however; **tie** has added methods that have delivered proven success on other tram projects and, in addition, some new methods that will create new and often unusual connections with the Edinburgh public.

For ease of reading the phases of project delivery (build, test and implement as per the project lifecycle) have been broken down into:
- Pre construction
- Utilities diversion
- Construction
- Commissioning
- Launch
- Operation.

tie's approach to each phase will provide a commitment to the people of Edinburgh. The Communications Plan will document **tie's** approach and methods. This will ensure that Edinburgh can rely on the Communications Team for accurate and relevant information about the Tram project. This strategy will be reviewed and its impact evaluated as each phase progresses.

A programme of information and events will be delivered based on the project milestones. This programme will be available from January 2007 and be updated on a monthly basis relevant to the programme, delivery dates and programmes from sub contractors. This can be obtained from contacting the ETP Communications Manager.

Evaluation
Evaluation techniques will include:

- Carrying out market research in order to gather, analyse and interpret information about the public transport market; the service to be offered for sale in that market; and about the past, present and potential customers for that service.
- Prompted awareness and recognition of the campaign/brand, in order to discover how effective the marketing campaign has been.
- Knowledge and behaviour relating to the campaign messages
- Analysis of ticket sales will provide concrete evidence as to patronage and revenue.
- Questionnaires at each Lothian Buses shop will enable us to target existing public transport users, a percentage of whom have been predicted to shift mode from bus to tram.
- Surveys
- Requesting feedback from Stakeholders at events will enable us to monitor opinion
- Event attendance as the project moves into operation will enable us to measure whether or not **tie** are e keeping stakeholders interest, and whether **tie** continues to hold valuable sessions.

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Trams for Edinburgh
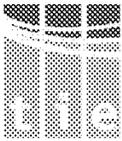
- Numbers of queries and balance of positive-negative
- Listening groups
- Website hits and comment will prove a useful tool in gauging public interest and opinion.

Media Monitoring is an essential tool for keeping abreast of news being printed or broadcast about the Tram system, TEL and the industry as a whole. A comprehensive public and media relations program will track public perception and enable us to respond accordingly.

The results of the evaluation will be formally reported on a regular basis.

Those involved
Through contracts and partnerships, there are now a number of core parties involved in the communications programme. Working together all parties will be involved in the delivery of the strategy to operation. Additional parties will also be involved in communication and information at different stages throughout the project.

Responsibility
The Head of Corporate Communications at **tie** will manage the interface with all stakeholders, contractors and partners and will be accountable to the ETP leadership.
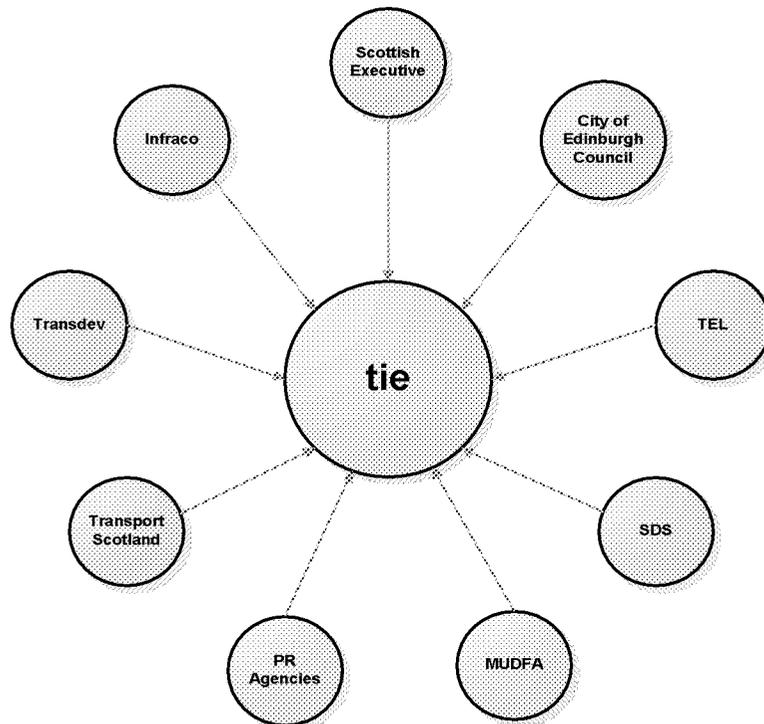
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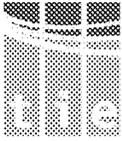
6.2.9   Project Controls Strategy

Objective

To establish appropriate measures and controls that will enable **tie** to properly control the ETNP such to ensure that it remains focused on delivery of its objectives.

Requirements

tie must ensure that the ETNP is properly developed and implemented using appropriate control. Therefore, a framework is required to allow the assessment of project performance as a basis for the decisions to be made by the project team. Control must be appropriate for complexity of the ETP and sensitive to the variety of interfaces existing on the project.

The Approach

The system will revolve around comparison and management of subsequent changes with an agreed baseline.

Key to this will be the identification of the following principles:

- Work content/scope/products to be delivered;
- Who is responsible for approving changes (both technically and financially);
- Who is responsible for implementing that change and when;
- Published control and reporting cycle to highlight variances.

Periodic Project Reporting will also be undertaken within the Project Controls workstream.

Tools and Techniques

The techniques employed will be those accepted as industry best practice:

- Schedule and project broken down in phases, geographical areas and tasks;
- Control by exception, use of tolerances;
- Appropriate change control processes;
- Continuous risk assessment of the schedule and project;
- Earned Value Analysis (EVA) techniques;
- Measuring against Key Performance Indicators (KPIs);
- Generation and distribution of reports that are targeted, structured, consistent, timely and accurate.

Evaluation

Undertaking planned audits to ensure that defined procedures are being adhered to and the outputs are evaluated and approved by the Tram Project Director (TPD).

Those Involved

ETP Team, Tram Project Board, TPB sub-committees, **tie**'s consultants and contractors and **tie** stakeholders.

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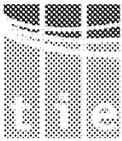
Responsibility

The Project Controls Manager will be responsible to the Commercial Director or any manager within the Project Management Team as delegated by the PD to fulfil a policing role within the project.

6.2.10   Cost Management Strategy

Objective

To review, audit and report on both scheme and project costs to provide **tie** with the confidence that the costs represent value for money, and that the figures fall within the affordability envelope.

Requirements

tie will require cost assurance to ensure that the costs produced by others represent value for money and within the affordability envelope. Audits of the scheme costs will be conducted, both internally and externally to ensure that the costs incurred are correct.

The Approach

The DBFC will be validated and a *Master Project Estimate* will be produced. This will be adopted by the ETP Team so that responsibility to produce design solutions within known budgetary limits is universally accepted.

As part of the review process, benchmarking analyses will be carried out to identify areas of improvement. Furthermore, a structured approach to auditing will be undertaken at the end of various milestones.

In order to ensure effective communication, regular cost reports will be produced with trend analyses and a change register to indicate the current status of the scheme and project costs.

Tools and Techniques

The Cost Manager will employ best practice tools and techniques, including value engineering exercises.

Evaluation

The *Master Project Estimate* will be reviewed at intervals set by the ETP Leadership. Regular cost reports that will focus on specific areas of concern identified during audits will also be produced. This will enable action plans to be developed and other options to be explored.
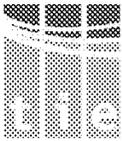
Those Involved

The Cost Manager, Commercial Team, Finance Manager, Development & Approvals Team, Delivery Team and Consultants.

Responsibility

The Cost Manager will report to the Commercial Director.

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6.2.11   Risk & Opportunity Management Strategy

Objective

ETP Risk Management aims to successfully manage all risks to and opportunities for the project thus ensuring that a supported and fully functioning operational service is delivered within budget and on time.

Key drivers for Risk Management are to:

- Promote and support proactive management of risk and opportunity

- Integrate risk awareness/management, and not risk aversion, into the project culture

- Manage risk in accordance with best practice

- Reduce risk exposure to acceptable levels

- Capitalise on opportunities

- Ensure that all identified risks are owned and managed by the party best able to manage them

- Provide enhanced information to managers and stakeholders

Requirements

A structured and integrated approach to risk identification and overall management of risks is to be adopted in order to assist in the successful delivery of the project objectives. This will include consultation and communication with stakeholders on risks/opportunities to deliver those objectives.

The Approach

A Risk Management Plan exists in the ETP extranet to provide an overview of the approach for Risk Management on the project. This document is the central source of Risk Management information and is appended by procedures for supporting project teams in their effective delivery of Project Risk Management objectives.

The Plan defines how risks will be identified and evaluated across the project. It also outlines the ongoing methodology for the management of risk through clearly identifying roles and responsibilities along with the necessary reporting and review requirements.

Through the use of web-based, enterprise risk management technology, project risk information will be held in a single place with secure access available to multiple parties.

Tools and Techniques

ETP Risk Management will employ best practice techniques as defined in:

- Association of Project Management Project Risk Management Specific Interest Group (2006) *"PRAM Guide – Project Risk Analysis and Management Guide: Second Edition"* APM Publishing Ltd, UK

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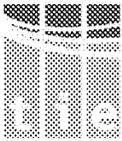
- British Standards Institution BS 6079-3:2000 *"Project Management – Part 3: Guide to the management of business related project risk"* BSi, London, UK

- AIRMIC, ALARM, IRM (2002) *"A Risk Management Standard"* London, UK

- Bent Flyvbjerg in association with COWI (June 2004) *"Procedures for Dealing with Optimism Bias in Transport Planning"* British Department for Transport, London, UK

- Mott Macdonald (2002) *"Review of Large Public Procurement in the UK"* HM Treasury, London, UK

- HM Treasury (2003) *"The Green Book: Appraisal and Evaluation in Central Government"* TSO, UK

- Office of Government Commerce (2005) *"Management of Risk: Guidance for Practitioners 4th Impression (with amendments)"* TSO, UK

It is expected that the following tools will be used to manage and assess risk:

- Active Risk Manager software for the management of the project risk register(s)

- @RISK software to enable detailed statistical analysis of cost and time impacts

Evaluation

Risks and their mitigations will be identified and reviewed on an ongoing basis through a series of regular workshops. This process will review the risks in light of project developments and as a result of Risk Management actions taken. The reviews will focus on the progress of the action plans and the effectiveness of management actions, in addition to identifying emerging risks and recording the status of the existing risks. As risks occur, are mitigated, closed or new risks identified and assessed, the probabilities and impacts will be adjusted.

Those Involved and Key Responsibilities

The Risk Manager from **tie**, their advisers and relevant Project Management Service Provider and operational staff will attend workshops The Tram Risk Manager will be responsible for noting risks, maintaining the risk register and ensuring that appropriate treatments are established and implemented. Relevant Risk Owners from **tie**, Project Management and Service Providers and Contractors will be responsible for managing risks, through planning and implementing their treatment and reporting progress to the Tram Project Risk Manager. Subsequent reports will be made to **tie**'s Risk Manager, Tram Project Director and Executive Board.

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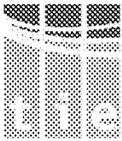
6.2.12   Information Management and Administration Strategy

Objective

To formalise a consistent, project-wide information governance process leveraging **tie**'s extranet capabilities to regulate how project information assets are obtained, created, validated, stored, accessed, controlled and distributed.

Requirements

Up to date, accurate data from each project workstream.

Approach

The information management strategy will be developed to configure and govern the use of a project wide extranet system which facilitates collaboration across work streams and organisations and provides key decision makers with accurate, quality intelligence about issues that influence their decisions and issues their decisions affect.

This will be achieved by:
- Implementing functional role groups within and across workstreams to ensure data security and an intuitive library structure
- The appointment and training of appropriate information gatekeepers (workstream administrators, Document Controller, FOISA support)
- Implementing formal processes for the receipt, creation, retrieval and version control of key project deliverables, supported by the extranet system.
- Working with contractors to synchronise **tie's** IT systems to allow all project resources to collaborate in the extranet environment.

Tools and Techniques

The ETP extranet system will be configured by **tie** IT using Microsoft Sharepoint Portal services. With the assistance of project managers within each workstream, a clean, version controlled and accurate data set for the project will be stored in this system.

Training and support will be delivered by IT and the project Information Manager to enable users to use the new system while dedicated 'expert admin users' will be trained within each team to facilitate implementation and operation.

Evaluation

Success will be measured by ease of location/retrieval of information and accuracy of data in the system (version control/etc)

Those Involved

The Project Information Manager with support from the Deputy Project Director and individual workstream managers will lead this activity. Since Information Management policy will have a material affect on the way in

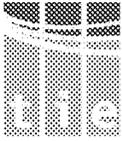| DOC.NO.	VERSION	STATUS	DATE	PROJECT:	SHEET
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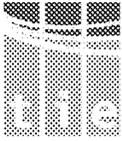
which the Tram Project Team undertake their daily work, all personnel should understand the necessity of their co-operation in successfully implementing this strategy. Effective interfaces, instructions and procedures between **tie** and its subcontractors must be developed to enable cross-enterprise collaboration.

Responsibility

The Project Information Manager and **tie** IT resources will be responsible to the ETP Leadership for delivery of the new Extranet system and the management procedures associated with its operation.
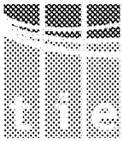
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Project Management Plan

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How Did tie Do?

How well did tie achieve the Edinburgh Tram Project objectives?

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7.0   Project Close-Out

In order to capture and distribute the experience, skills and knowledge that have been developed throughout the ETP, project close-out needs critical consideration by the Tram Project Director.

7.1   Final Project Report

The completion of the ETP will mark the last major milestone and will provide an important opportunity to capture lessons learned during the project.

7.2   Lessons to be learned

'Lessons to be learned' is a review that is completed at certain times during the projects life. The review is undertaken to ensure that positive and negative things that have happened on the project can be identified, logged and fed back into the project management process. This should then enable sharing of these lessons among other project managers, so that when they encounter similar issues on this or subsequent projects, the issues are handled bearing in mind the lessons learned on previous projects.

Ongoing 'Lessons Learned' reviews will take place throughout the duration of the project, thus providing an opportunity for **tie** organisational learning which can benefit future projects and programmes.

The Tram Project Director should arrange for the reviews to be undertaken, and arrange for detailed notes to be made of the meetings. The review should be completed with those in the ETP Delivery group who have some involvement with the project. This could include: the Tram Project Director, Delivery Director, Commercial Director, HSQE Manager, Project Managers, and appropriate others.

The review format should include the following agenda items:

1. Welcome and Purpose of Meeting defined
2. Safety Brief
3. Things that went well (Short Brainstorm)
4. Things that didn't go so well (Short Brainstorm)
    - What would we do differently
        - If we were to have our time again on this project what would we do differently?
5. Any other Comments / Thoughts for the Future

This review meeting needs to take comprehensive notes, which then need to be passed to the Project Controls Manager to facilitate feeding such lessons back into the Project Management process.

Feed Lessons back into Project Management Process

The Project Controls Manager is responsible for feeding the lessons from the review meetings back into the Project Management process.

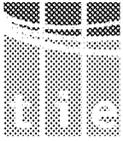| DOC.NO.	VERSION	STATUS	DATE	PROJECT:	SHEET
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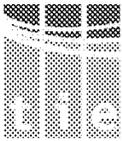
Upon receipt of the review minutes the Project Controls Manager stores them. Periodically a meeting will be called by the Project Controls Manager, where the review meeting lessons will be discussed and it will be decided how the lessons would be fed into the Project Management process.

Project Management Plan

Trams for Edinburgh

8.0   Appendices

A.	Project Glossary Listing
B.	Master Project Programme
C.	Project Procedures Schedule
D.	
E.	
F.	

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Appendix A

Trams for Edinburgh
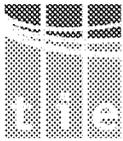
Appendix A - ETP Management Plan Glossary

ACMP	Reliability Availability Maintainability and Safety
AFC	Anticipated Final Cost
ALARP	As low as is reasonably practicable
AQAP	Air Quality Action Plan
BAA	British Airports Authority
BPIC	Business Planning, Integration and Commercials
CBS	Cost Breakdown Procedure
CDM	Construction Design Management
CEC	City of Edinburgh Council
DAR	Delegated Authority Rules
DFBC	Draft Final Business Case
DPD	Design, Procurement and Delivery
DPOFA	Developing, Partnering, Operating Franchise Agreement
ETN	Edinburgh Tram Network
ETP	Edinburgh Tram Project
EVA	Earned Value Analysis
FM	Functional Manager
HMRI	Her Majesty's Rail Inspectorate
HR	Human Resources
HSQE	Health, Safety, Quality and Environmental
Infraco	Infrastructure Contract
ITI	Integrated Transport Initiative for Edinburgh and South East Scotland
ITT	Invitation to Tender
JRC	Joint Revenue Committee
KPI	Key Performance Indicator
LB	Lothian Buses
LOD	Limits of Deviation
LRT	Light Rail Transit
LTS	Local Transport Strategy
MP	Master Programme

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Appendix A

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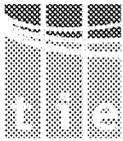
MSP	Members of Scottish Parliament
MUDFA	Multi Utilities Diversion Framework Agreement
NR	Network Rail
OBC	Outline Business Case
OGC	Office of Government Commerce
OHLE	Overhead Line Equipment
PEMP	Project Environmental Management Plan
PM	Project Manager
PMP	Project Management Plan
PQMP	Project Quality Management Plan
PR	Public Relations
PSMP	Project Safety Management Plan
RAMS	Reliability Availability Maintainability and Safety
ROTS	Railways and Other Transport Systems
SDS	System Design Services
SE	Scottish Executive
TEL	Transport Edinburgh Limited
the Executive	Scottish Executive
tie	Transport Initiative Edinburgh / **tie** Limited
TPB	Tram Project Board
TPD	Tram Project Director
Tramco	Contract covering all activities associated with the purchase, manufacture and delivery of trams
Transdev	Operator for the Edinburgh Tram system
TRO	Traffic Regulation Order
TS	Transport Scotland
TSS	Technical Support Services
TTRO	Temporary Traffic Regulation Order
VOWD	Value of Work Done
WBS	Work Breakdown Structure

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Appendix B

Appendix B – Master Project Programme

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Appendix B

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Appendix C

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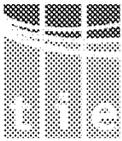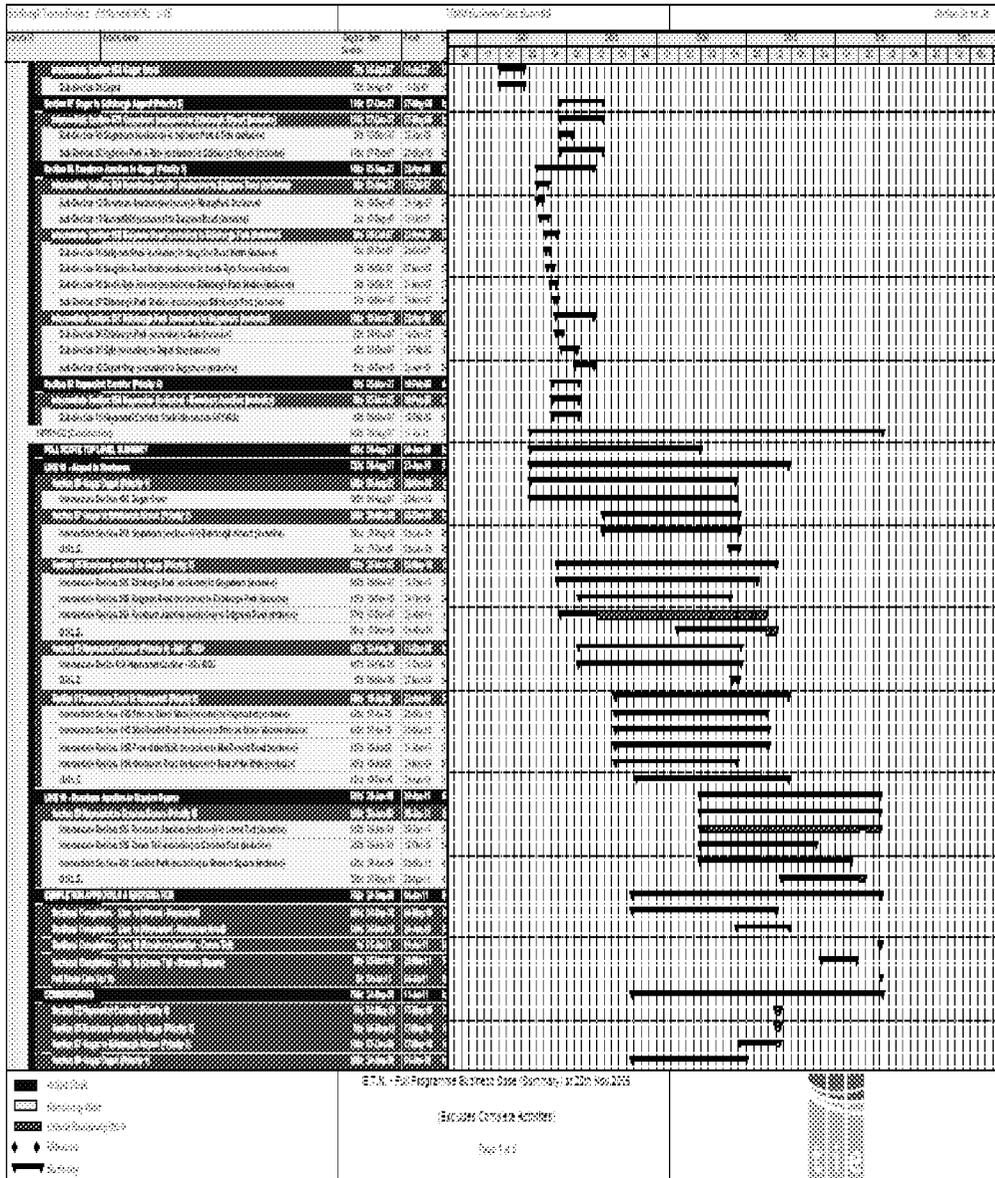
Appendix C – Project Procedures Schedule

Plan	Procedure
Project Management Plan	
Project Controls Management Plan	Master Project Procedure
	Planning and Scheduling Procedure
	Change Management Procedure
	Cost Management Procedure
	Performance Management
	Contractor Reporting Procedure
	Project Reporting Procedure
	Delegated Authority Rules
	Project Administration Procedures
	Project Close-out and Lessons Learned
Risk Management Plan	Risk Identification & Assessment
	Risk Treatment
	Risk Drawdown
Information Management Plan	Document Numbering Procedure
	Document Control Procedure
	Document Standards
	Archiving
Design Management Plan	Design Management Procedures
Utilities Management Plan	Utilities Procedures
Construction Plan	Construction Procedures
Procurement & Contracts Plan	Third Party Claims
	Evaluation Procedure
	Award of Contracts
	Respond to Queries
	Issue Tender Docs/Pre.Qualification Requests
	Issue Tender Docs/Pre.Qualification Requests
Communications Management Plan	Communications Procedures
Stakeholder Management Plan	**Stakeholder Procedures**
Land Assembly Mgt. Plan	Property Acquisition Procedure
	Land Management and Transfer
Health, Safety & Quality Management Plan	Monitoring
	Processing NCR's

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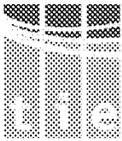
	Processing Departure Notices
	Processing Work Site Completion Certificates
	Implementing CDM Regulations
	tie Tram Project Induction
	Review of Contractors Safe Systems of Work
	Dispensation from Code of Construction Practice
	Processing Access Permits
	Safety Tour
	Emergency Escalation
	Emergency Planning
	Systems Safety / Safety Assurance
	Auditing
Environmental Management Plan	Environmental Procedures
Tram Management Plan	Tram Management Procedures
Commissioning Management Plan	Commissioning Management Procedure

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