

Tramco

Procurement approach

- 7.83 The principal attributes of procurement approach for this contract are:
- Scope – Detail design, manufacture and commissioning into service of tram vehicles (capital works) and subsequent maintenance;
 - Approximately 3 ½-year contract duration for capital works and duration of up to 30 years for maintenance;
 - Lump sum price for delivery of vehicles for Phase 1a, with options for the supply of further vehicles to meet the 8 / 16 trams per hour operating service pattern. Fixed price per km operated payments for maintenance adjusted according to actual in service performance;
 - Tram supply prices include for inflation over the duration of the contract, maintenance prices are indexed for inflation;
 - Prices include for exchange rate risk from award of contract (**tie** takes the exchange rate risk up to contract award);
 - Milestone payment mechanisms for capital works with performance related payment mechanism for maintenance;
 - Liquidated damages for delay to completion;
 - Performance bonds and warranties to secure redress in the event of major default;
 - Contractor's liabilities capped at predetermined levels; and
 - Tramco contracts are novated to Infraco at Financial Close.

Introduction

- 7.84 The key objective was to select the vehicle and vehicle supplier which best suit Edinburgh's needs. This contrasts with other light rail procurements, where vehicle suppliers and infrastructure contractors have bid as consortia, and the public sector has been unable to separately select both the best vehicle and the best contractor, resulting in a sub-optimal compromise.
- 7.85 Bids to supply vehicles have been evaluated based on the whole-life price, including maintenance, as well as the vehicles' qualitative features. Therefore, the cost of spare parts, special tools and specific maintenance programmes, both annual and periodic, has been considered, in addition to the upfront vehicle supply costs.
- 7.86 Two separate but related agreements have been competed and finalised with the successful bidder: the Vehicle Supply Contract and the Vehicle Maintenance Contract. These contracts will be executed simultaneously. The Vehicle Supply Contract covers the design, manufacture and supply of vehicles, capital spares, special tools and associated equipment. It also includes, as necessary, option prices for additional rolling stock should the anticipated further phases of the system take place, and to facilitate the proposed phased approach to the procurement.
- 7.87 The maintenance element of the contract has been subject to variant bids similar to the Infraco maintenance contract. The reference case was to provide tram vehicle maintenance for an initial 30-year operating period. Shorter maintenance periods with the option to extend in three yearly increments up to a maximum of 30 years were also considered. This approach tested the value for money of the reference case. The negotiated contract provides for the vehicle supplier and vehicle maintainer, for at least the initial five years, being the same company. However, this policy remains the subject of further discussion and development within **tie** and TEL and the performance of the vehicle supplier.
- 7.88 It is intended that both the Vehicle Supply Contract and the Vehicle Maintenance Contract will each be novated to Infraco at Financial Close. The Vehicle Supply Contract has a warranty / defects liability period post full service commencement matched to the Vehicle Maintenance Contract duration. On expiry or termination of the Infraco contract, the Infraco is contractually

obliged to assign the Vehicle Maintenance Contract (and also the Infrastructure Maintenance contract, assuming that neither have expired) to TEL or another suitable party.

Tramco procurement progress to date

- 7.89 The current status of the Tramco procurement is:
- Four bidders were prequalified;
 - Four bids were returned on the 9th October 2006;
 - Bids are were evaluated and two bidders were selected for further negotiation; and
 - Negotiations have been concluded, evaluation updated and a preferred bidder selected.

Payment mechanism and incentivisation structure – Vehicle supply

- 7.90 Payment of Tramco for vehicle supply is contingent on the completion of 'fine grained' programme milestones. The principal milestones are:
- Completion and approval of production design work;
 - Supply of vehicles;
 - Successful commissioning into service; and
 - Successful proving of vehicle performance through system reliability tests.

- 7.91 The payment mechanism operates as follows:
- The contract defines:
 - Programme milestones for each element of the work; and
 - The proportions of the contract sum allocated to each programme milestone; and
 - Payment is made for each reporting period as set out in the contract for the value of each completed milestone. Overall there are 73 individual milestones, but key aspects are:
 - Initial payments during approach and consents – up to 10%;
 - Commencement of tram works – further 10%;
 - Activities in connection with manufacture of the first tram – further 19%;
 - Delivery and commissioning of first tram – further 12%;
 - Delivery and commissioning of next 26 trams – further 26%; and
 - Other testing, delivery of documents / manuals – final 23%.

All as assessed by **tie**.

- 7.92 This arrangement strongly incentivises Tramco to:
- Complete vehicle design, supply and commissioning to programme, otherwise their cashflow is adversely affected; and
 - Deliver vehicles to the required standard that are capable of being commissioned and integrated into the tram network, otherwise their cashflow is adversely affected.
- 7.93 As a further incentive, liquidated damages provisions are included in the contract. These represent the costs to **tie** of any delay to delivery and which may be applied in the event of default by the tram supplier.

Payment mechanism and incentivisation structure – Vehicle maintenance

- 7.94 The tram fleet reliability and availability are crucial to provision of the high quality tram service required to encourage modal shift from private car to public transport. The Tram Maintenance Contract covers vehicle maintenance services and vehicle spare parts.
- 7.95 The Tram Maintenance Contract has 30% of the annual maintenance services fee, subject to a minimum payment of 85% of the monthly payments as a performance related payment based upon a punctuality and availability monitoring regime. Deductions in payment are proportional to the number of late departing trams, compared to those timetabled to operate and tram availability, including a 'hot spare' offered for service each day. There are two elements which will be used to determine the amount of each Tramco Maintenance Services payment and incentivise the Tramco

Benefits and risk allocation

- 7.96 The key benefits of the vehicle procurement and maintenance strategy are as follows:
- It allowed choice of vehicle by **tie**; and
 - Value for money of maintenance contract market tested through variant bids.
 - Creates the opportunity to match the best tram vehicle supplier with the best infrastructure and system integration supplier.
- 7.97 Risks remaining with the public sector are as follows:
- Maintenance and lifecycle risks beyond the chosen maintenance contract period;
 - Costs in excess of the liability caps specified in the contract; and
 - Remaining risks associated with the cost (initial and ongoing) and on time delivery of the vehicles will pass to the private sector via the novation of the vehicle supply and maintenance contracts to Infraco.
- 7.98 The procurement phase for this contract is ongoing and the arrangements outlined above may be adjusted to achieve the optimum value contract arrangement with the successful Tramco bidder.
- 7.99 Whilst a preferred Tramco supplier and maintainer has been selected, the final integration of the Tramco and Infraco contracts is to be concluded during the Preferred Bidder period prior to the award of the contracts and the concurrent novation of Tramco to Infraco.

Infraco

Procurement approach

- 7.100 The principal attributes of the procurement approach for this contract are:
- Scope – Single point responsibility for detail design, construction, integration and commissioning into service of Phase 1a of the ETN (capital works) and its subsequent maintenance. Options included for subsequent Phases;
 - Design liability and capability transferred by novation of SDS contract into Infraco;
 - Tram vehicle supply, commissioning and subsequent maintenance liability and capability transferred by novation of Tramco contract into Infraco;
 - Approximately three year contract duration for delivery into service of Phase 1a. Maintenance duration of up to 15 years;
 - Lump sum price for delivery into service of the tram system. Thereafter lump sum payment each period for maintenance works, subject to performance adjustment;
 - Maintenance price adjusted for inflation by applying RPIx (Retail Price Inflation index excluding mortgage payments);
 - Maintenance prices include for market price reviews at yearly intervals over the duration of the contract;
 - Milestone payment mechanisms for capital works with performance related payment mechanism for maintenance;

- Liquidated damages for delay to completion;
- Parent company guarantees, bonds and warranties to secure redress in the event of major default on capital works and maintenance; and
- Contractor's liabilities capped at predetermined but significant levels.

Introduction

- 7.101 The Infraco will be responsible for integrating the outputs of SDS and Tramco under the novated contracts, together with its own subcontracts. The Infraco will be required to carry out and / or manage a comprehensive turnkey contract, including the design (effectively only any remaining detailed design and installation / fabrication design), construction, installation, commissioning, vehicle procurement, system integration, infrastructure maintenance, vehicle maintenance and supply of related equipment and materials in respect of the tram system, the tram vehicles and related infrastructure. Certain aspects of the system performance obligations will persist for the duration of the maintenance contract period.
- 7.102 The evaluation of bids to construct the infrastructure have been undertaken based on the price for the delivery of the infrastructure, together with maintenance and lifecycle costs, as well as qualitative features. Unlike the vehicles contracts, **tie** proposes to procure the initial construction and the ongoing maintenance under a single contract with the successful bidder.
- 7.103 The maintenance element of the contract has been subject to variant bids with the reference case to provide infrastructure maintenance for an initial 15-year operating period. Shorter maintenance periods with the option to extend in three-yearly increments, up to a maximum of 15 years have also been considered. This approach both maintains flexibility in terms of future maintenance provisions, and tested the VFM of the reference case. However, the term of the maintenance agreement remains the subject of further discussion and development within **tie** and TEL prior to completion of the construction phase.

Infraco procurement progress to date

- 7.104 The current status of the Infraco procurement is:
- The Infraco bid document was issued on 3rd October 2006;
 - Initial bids and subsequent further rounds of bidding culminated in negotiation with both bidders to obtain optimum proposals from both. The evaluation was then updated and a preferred bidder nominated; and
 - Concurrent award of Infraco and Tramco is proposed for January 2008.

Payment mechanism and incentivisation structure – Capital works

- 7.105 Payment of Infraco for capital works is contingent on the completion of 'fine grained' programme milestones. The principal milestones are:
- Completion and approval of production design work;
 - Completion of tram depot and test track section;
 - Successful completion of commissioning and system integration prior to trial running of the system;
 - Successful commissioning of the system into service; and
 - Successful system reliability tests following commencement of revenue service.
- 7.106 The payment mechanism operates as follows:
- The contract defines programme related milestones for each element of the work. These are to be grouped into a Milestone Payment Schedule identifying a number of milestones to be achieved in relation to each Milestone Payment;
 - An initial Milestone Payment of 20% is envisaged as being paid to the Infraco by April 2008 (possibly in two amounts from February);
 - Thereafter payments will be made for each four weekly reporting period (i.e. 13 per annum);
 - If the Infraco falls behind programme, payments are reduced accordingly;

- It the Infraco gets ahead of programme, payments are 'capped' at the level anticipated, thus avoiding **tie**'s inability to pay if the 'drawdown' of funds is exceeded; and
- Payments will 'plateau' around the commencement of system integration and a mixture of cash and 'retention bond' held and progressively released on successful commissioning of the network, following completion of trial running and successful completion of Systems Reliability Testing.

All as assessed by **tie**

- 7.107 This arrangement strongly incentivises Infraco to:
- Complete system construction, commissioning and delivery into service to programme, otherwise their cashflow and balance sheet is adversely affected (bonds count as a liability on companies balance sheets); and
 - Delivery of the system to the required standard and performance, otherwise again their cashflow and balance sheet is adversely affected.
- 7.108 Additionally, as a further incentive, liquidated damages provisions are included in the contract. These represent the costs to **tie** of any delay to delivery and which may be applied in the event of default by the Infraco, including any default by Tramco or SDS under the novated contracts.

Payment mechanism and incentivisation structure – Infrastructure maintenance

- 7.109 The Infrastructure Maintenance Contract has 40% of the annual maintenance services fee as a performance related payment to incentivise the infrastructure maintainer to provide and present the tram system to a high standard. In addition, a team of inspectors, making qualitative assessments against established criteria, will check items such as cleaning, tram system repairs and maintenance, CCTV, passenger information displays, poster and information cases and signage and public address and help points. In order to incentivise timely fault correction for items of the tram system that are not covered by the punctuality or the qualitative regimes a part of the annual maintenance fee is made based upon actual fault correction against target correction times.
- 7.110 The regime allows for positive and negative performance points to be awarded each period in order to both incentivise good performance and penalise bad or deteriorating performance. The regime is based upon an existing arrangement on a tram system. The four elements used to determine the amount of each Infrastructure Maintenance Services Payment and incentivise the Infraco are:
- A guaranteed minimum payment – currently 60% of the Maximum Performance Payment, but subject to final agreement;
 - Tram Service Punctuality Service Element – 30% of the Maximum Performance Payment, subject to a minimum payment of 85% of the monthly payment, measured electronically comparing actual tram departure times checked against scheduled departure times;
 - Equal Service Element – 7.5% of the Maximum Performance Payment covering tramstops, the depot, car parks and / or any other part of the tram system (including areas adjacent to it) assessed against documented criteria by inspectors; and
 - Fault Correction Service Element and Information Provision Service Element – together 2.5% of the Maximum Performance Payment. The Infrastructure Maintainer provides a record of faults reported, the action required and time taken to correct. If the time taken to correct the fault exceeded the correction time limit then a penalty is levied.
- Poor performance 'ratchets' are included for repeated periods of poor performance and increased monitoring and remediation plans by the contractor.

Benefits and risk allocation

- 7.111 The key benefits of the Infraco procurement strategy are primarily through the award of a single turnkey fixed price contract and in the novation of the SDS and Tramco contracts and the transfer of risks to the Infraco. The benefits include:
- Single system integrator responsible for implementation of design and construction of the ETN and its subsequent maintenance;

- Full design risk passed to Infraco post contract award, including critically the deliverability of the design;
- Full vehicle risk passed to Infraco post contract award, including the deliverability of the vehicle design and compatibility with the infrastructure and systems;
- Reliability of Infraco supply chain and products to be supplied within it;
- Infrastructure and vehicle maintenance risk passed to Infraco ;
- Value for money of maintenance contract market tested through variant bids;
- Enables the Infraco bidders to minimise risk pricing; and
- Enables delivery of the tram system within the optimum programme.

7.112 Risks remaining with the public sector are as follows:

- Maintenance and lifecycle risks beyond the chosen maintenance contract period;
- Costs incurred above the Infraco contract liability caps in the event of default; and
- 'Political' risk associated with planning and Prior Approvals.

Novation strategy

Rationale for novation

7.113 A key element in achieving value for money through the Procurement Strategy is the disaggregation of the of the supply chain and procurement of the separate contracts required to deliver the tram into service. This enables:

- Early commencement of design for both utilities diversions and infrastructure thus reducing overall programme;
- Improved certainty of scope definition minimising risk pricing by Infraco bidders; and
- Selection of the optimum combination of vehicle and infrastructure providers.

7.114 However, **tie** also recognises the benefit of single point responsibility delivered by a consortium structure which would normally be achieved through a single integrated procurement process. Therefore, **tie** will retain as many of these benefits as possible by reaggregating the supply chain within the Infraco contract.

7.115 While novation carries risks, **tie** believes that these can be managed through the procurement process. This concept has been tested during extensive market consultation and with bidders during the procurement phase and received positive feedback. The proposed structure will transfer the systems integration and interface risks to the Infraco, with the exception of such risks associated with MUDFA, JRC and DPOFA, which remain with the public sector. This approach is entirely analogous to that taken on the DLR projects.

Novation of SDS to Infraco

7.116 The terms of the SDS contract provide for full novation of the contract to the successful Infraco bidder and consultation with Infraco bidders has been positive in this regard. **tie** retains the right, but not the obligation, to enforce the novation and there are a number of mitigating actions which can be taken in the event of difficulty. The benefits of novation of the SDS contract accrue in the main to the Infraco and this was reflected in the pricing of Infraco tenders.

Novation of Tramco (supply and maintenance contracts) to Infraco

7.117 During consultation with bidders it became clear that the Infraco bidders would have a strong preference for the identity of the vehicle manufacturer to be known prior to the tendering process for the Infraco contract being complete, as it could have a material impact on the integrity of the delivery of their contract obligations. In particular, the technical aspects, commercial terms and programmes of both the Infraco and Tramco preferred suppliers will need to be aligned and agreed prior to novation. This alignment is created by **tie** facilitating negotiations between the two preferred bidders.

- 7.118 Additionally, any issues that Infraco or Tramco bidders may have with each other which could prejudice a successful novation will be identified in the early stage of facilitated negotiations between SDS, Tramco and Infraco. These will either be practical issues capable of resolution through exchange of information or tactical commercial positioning, in which case **tie** will, at an early stage, apply pressure through negotiations to overcome this. This will mitigate the risks of the novation process failing due to material objections on the part of either the Infraco or Tramco preferred bidders. Nonetheless a risk remains that this novation could fail or become expensive to implement. **tie** will monitor this aspect closely through the early evaluation and negotiation phase of the tender evaluation process. To date, there are no indications that this risk will materialise.

Procurement process to financial close – Summary

- 7.119 The key steps to concluding the procurement process to financial close and award of the Infraco contract are:
- Release of detailed design information to preferred bidders for them to undertake due diligence;
 - Mobilisation and advance works agreements to be placed with Infraco and Tramco to enable a swift start on site at Contract Award and to mitigate programme and cost risks;
 - Facilitated Infraco / Tramco negotiations (facilitated by **tie**);
 - Facilitated Infraco / SDS negotiations (facilitated by **tie**);
 - Conclusion of various value engineering initiatives;
 - Final negotiations with Tramco and Infraco;
 - Conclusion of the basis for contract award with both Tramco and Infraco;
 - Confirmation of contract award recommendations; and
 - Award of Infraco and Tramco contracts and concurrent novation of SDS and Tramco to Infraco.

System integration strategy

- 7.120 The principal reason for procuring a consortium Infraco contractor is to provide a contracting entity with the demonstrable capability to deliver system integration. Bidders have provided a project specific integration plan as part of their bid. These plans have been reviewed and validated by **tie** and its technical advisers TSS to ensure robustness and reliability.
- 7.121 **tie**'s ERs, embodied within the Tramco and Infraco contracts, set out the requirements for proving the key stages of integration to conclusion of tram system delivery and particularly the testing required to prove effective integration and system operation.
- 7.122 These requirements include:
- Test and inspection plan requirements;
 - Factory Acceptance Test Requirements;
 - System Acceptance Test Requirements; and
 - Commissioning plans and records.
- 7.123 These tests will need to be successfully completed and requirements complied with in order to commence the trial running phase. The trial running phase and the subsequent system reliability tests will prove the system in operation. The payment mechanisms for Infraco and Tramco incentivise the contractors to successfully deliver a fully integrated system.
- 7.124 The Employers requirements also contain key programme constraints for phasing the construction works which will be optimised with the preferred bidder.

Value for money assessment

- 7.125 The value for money case for adopting **tie**'s Procurement Strategy has been demonstrated through a qualitative Value for Money (VFM) assessment of the alternative option to procure

the Tram via a PFI route prepared during the spring of 2005 together with the subsequent further work consisting of:

- A comprehensive qualitative and quantitative **ETN Procurement Route VfM assessment** comparing the Procurement Strategy being followed by **tie** to a PFI route,
- Confirmation that the conclusions drawn in the above assessment are still valid in light of the truncation of the initial scope of the project and
- A series of value for money risk transfer mechanisms to be implemented for the Tramco and Infraco contracts to incentivise the private sector in a manner similar to PFI whilst minimising the funding costs and risk premia which might be borne by the public sector in a PFI arrangement.

7.126 The key driver for **tie**'s Procurement Strategy is the need to construct a procurement arrangement that delivers an affordable scheme cost with significant risk transfer to the private sector.

Value for money risk transfer mechanisms

7.127 Consistent with the principals of **tie**'s Procurement Strategy, value for money risk transfer mechanisms have been incorporated into the principal contracts, namely Tramco and Infraco. In summary these mechanisms are:

- a) The creation of a single point contract, Infraco, with responsibility for the design, construction, system integration, commissioning and subsequent maintenance of the Edinburgh Tram system, including tram vehicles. This transfers the following responsibilities and hence risks to the private sector:
 - System integration – That all components, subsystems and systems are integrated together such that ETN delivers the specified performance and maintenance delivered such that level of specified performance is delivered during operation;
 - Design – That the design completed by SDS delivers the required tram network performance; and
 - Interface management – The effective management of the interfaces between suppliers and sub contractors to deliver the specified performance within the agreed programme;
- b) The creation of the Infraco contract as a lump sum contract transfers the pricing risk to the private sector. Finalisation of certain 'Edinburgh specific' elements, such as structures, of the Infraco contract price on the basis of SDS Detailed Design significantly reduces their scope and performance risk pricing premium that would otherwise be necessary under conventional design and construct or PFI approaches;
- c) Incentivisation to deliver the operating tram system into revenue service to programme and to the required performance and standard by:
 - 'Fine grained' milestone schedule payment mechanisms in Infraco and the two contracts novated into it. Critically in the Infraco contract:
 - Retention of the final 10% of value pending demonstrably successful completion of trial running and subsequent successful completion of system reliability tests on the operating tram network during revenue service.
 - Liquidated damages for over run on completion due to default by the contractor; and
 - An ongoing maintenance obligation of up to 15 years, such that any oversight or skimping on the quality of components and system integration is likely to result in a financial penalty during the operating phase;
- d) Incentivisation to deliver maintenance services during tram operation via the performance payment mechanism in the Infraco and Tramco contracts. These will penalise the contractor financially should performance fall below the specified thresholds;
- e) The Infraco's obligations are underwritten by bonds to the value of 15% of the underlying contract during the construction phase, stepping down during the operating phase, in line with confidence in the integrity of the tram network. In addition, the Infraco's obligations are underwritten by Parent Company Guarantees with each Infraco consortia party; and
- f) Early involvement of the operator under the DPOFA contract ensures that the operator is content with the system proposed and delivered and provides operational expertise to the design and procurement phases and resources to support the commissioning and trial running phases.

7.128 The above mechanisms provide VFM through a prudent and affordable risk allocation to the private sector with the requisite incentivisation and sanctions. In addition, **tie**'s strategy of separate procurement of the principal elements of the supply chain, and their subsequent reaggregation, further improves VFM by reducing overall programme duration, and hence cost, plus avoiding the risk premia that bidders would inevitably otherwise include under PFI style arrangements. This is achieved by:

- Procuring the design early via the SDS contractor thereby reducing scope uncertainty at the close of the Infraco and Tramco bids;
- Procuring the tram vehicle separately enabling the optimum combination of vehicle and infrastructure suppliers and maintainers; and
- Procuring the utilities diversion work separately (predominantly under the MUDFA contract) avoiding the time delay whilst diversions are scoped and designed and prices agreed with utility companies.

7.129 In summary, **tie** firmly believe that the structure outlined above, as negotiated with the Infraco and Tramco bidders, will deliver the required risk transfer provisions to maintain a high level of incentivisation throughout the contract period. **tie** also believes that the cost of the incentives package will compare favourably to the cost of finance incurred in PFI projects.

8. Implementation

- 8.1 Revenue service for Line 1a is planned to commence in the first quarter of 2011. This is conditional on the procurement milestones being met, with contract award in early January 2008 and construction commencing immediately afterwards.
- 8.2 This section of the FBCv2 sets out the necessary approvals and consents, as well as the strategies and activities required for the implementation of Phase 1a of the ETN. The key strategies for successful implementation of the tram network cover traffic management processes, land acquisition, project management and plans in place to mitigate the impact of constructing and operating the tram network. This section should be read in conjunction with section 7, Procurement and section 12, Programme.

Approvals

- 8.3 The Edinburgh Tram (Line One) Act 2006 and the Edinburgh Tram (Line Two) Act 2006 (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 network. However, despite these wide ranging powers, various other consents and approvals are required to ensure that all of the works have the necessary consents and to ensure that the tram can operate successfully.
- 8.4 Many, but not all of the consents are required from the planning authority of the CEC. Other consents are also required from other statutory bodies, for example the Roads Authority or Scottish Natural Heritage and from other third parties. Table 8.1 lists the consents required, likely extent, consenting authority for each and an indication of the likely timescale for obtaining the consent.
- 8.5 The process of prior approval is explained below.

Table 8.1. Consents required.

CONSENT	LIKELY EXTENT OF REQUIREMENT	AUTHORITY	TIMESCALE	Status
Rail	ROGs and NR consents.	ICP. NR.	Iterative process through project phases: Preliminary and detailed design, construction, testing and commissioning.	HMRI approval is no longer required under ROGs, ICP instead. Ongoing consultation with NR.
Aviation	Aviation and BAA Approvals.	Planning Authority BAA.	Iterative process through preliminary and detailed design stages.	BAA conditions are captured within the design and the lease agreement.

CONSENT	LIKELY EXTENT OF REQUIREMENT	AUTHORITY	TIMESCALE	Status
Planning	<p>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.</p> <p>Scheduled Monument Consent (eg Victoria Bridge).</p>	<p>Planning Authority.</p> <p>Scottish Ministers and Historic Scotland.</p>	<p>Eight weeks minimum Plus eight weeks – application can be dealt with through delegated powers or by Planning Committee Plus further time required if called in by Scottish Government.</p>	<p>Prior Approvals process is being progressed on a range of discrete and packaged submissions. Extensive consultation is already complete and some approvals are already in place.</p>
Traffic	<p>TROs.</p> <p>TTROs.</p>	Roads Authority.	<p>Minimum of 12 months Eight weeks.</p>	<p>See TRO strategy below. TTROs are in place for MUDFA, Infraco will apply as required.</p>
	Road Construction Consent.	Roads Authority.	28 days.	
Environment	<p>Water and Waste Water Connection Controlled Activities Regulations Compliance Controlled Activities Regulations Approval Controlled Activities Regulations License</p>	<p>Scottish Water. SEPA. SEPA. SEPA.</p>	<p>28 Days. Not applicable.</p>	<p>Captured as part of MUDFA process, Infraco will seek relevant approvals during construction as required.</p>
	<p>SPA Notifications / Consents. Protected species notifications / consents.</p>	<p>SNH / Scottish Government.</p>	Not Applicable.	Ongoing during construction.
	Landscape and Habitat Management Plan.	Planning Authority.	Prior Approval of this is required in accordance with Acts of Parliament.	Being finalised within Detailed Design.
Structures and Construction	Building Warrant for Depots.	Building Standards.	Two weeks minimum.	To be sought on completion of design and Prior Approvals.
	Technical Approval.	CEC Building Standards, Roads, Bridges	Eight weeks.	Ongoing.

CONSENT	LIKELY EXTENT OF REQUIREMENT	AUTHORITY	TIMESCALE	Status
	Works to safeguard buildings.	Owner / occupier.	14 days notice.	
Radio	Business Radio License.	OFCOM.	None given.	Discussions with 3 rd parties ongoing.
Agreements and Undertakings	Third Party Agreements entered into require to be met through design and construction.	Agreement between tie and party.	Details were passed to designers as tracked through the programme.	Agreements are passed down into the construction contracts.
	Parliamentary Undertakings require to be met.	Parliament.	Details passed to designers as tracked through the programme.	Undertakings are passed down into the construction contracts.
Survey Work	Access rights for survey purposes.	Owner / occupier.	First time for a site requires seven days notice, then three days thereafter.	Ongoing as required.

Planning Approvals

8.6 The bulk of the planning consents relate to applications for prior approval. Table 8.2 sets out the type of planning consents which may be required.

Table 8.2. Planning consents required.

Proposal (A-Z)	Type of Planning Application Required
Access Roads.	Prior Approval.
Advertisements on tram stops or other Buildings / structures.	Express Consent to Display an Advertisement required for commercial advertising. Directional signs and information notices enjoy “deemed consent” and so do not require express consent.
Advertisements on trams (inside and out).	No consent required.
Bridges (Erection of new bridges and extensions to existing).	Prior Approval.
Buildings (Erection of new building or extensions to existing).	Prior Approval.
CCTV within LOD.	May require Prior Approval (any building or pole on which they are fixed may require prior approval). Listed Building Consent where attached to Listed Building specified in Schedule 10.
CCTV outwith LOD.	None usually, but consent needed in Conservation Areas and consent also needed if preconditions contained in General Permitted Development Order are not met. Listed Building Consent likely to be needed to attach CCTV cameras to listed buildings.
Construction compounds within LOD or adjacent to LOD land.	None.
Demolition of buildings / structures within a Conservation Area.	Conservation Area Consent (unless only partial demolition, or the building or structure is very small - 115 m ³ or under – or was not in a conservation Area at the time the Bill was introduced to Parliament).

Proposal (A-Z)	Type of Planning Application Required
Fences (means of enclosure only – see below for “sound barriers”).	None within LOD. Outwith LOD – consent required only in the conservation areas unless over 1m high (and other General Permitted Development Order preconditions).
Footbridges.	Prior Approval.
Embankments.	Prior Approval.
Landscaping – hard and soft.	None. However, link with Environmental Statements and the Landscape Habitat Management Plan for Roseburn Corridor.
Lighting.	May require Prior Approval if attached to a building or placed on a pole.
Listed Building alterations (for tram related works).	Prior Approval. Listed Building Consent where attached to Listed Building specified in Schedule 10.
OLE poles.	Prior Approval.
Overhead line fixings to listed buildings.	Prior Approval. Listed Building Consent where attached to Listed Building specified in Schedule 10.
Overhead line fixings to non-listed buildings.	Prior Approval.
Park and Ride site at Ingliston.	None (except for any formation or alteration of a means of access to a road used by vehicular traffic and any buildings / shelters).
Park and Ride sites – others.	Full Planning Permission.
Retaining walls.	Prior Approval (unless retaining wall is considered to be solely a means of enclosure).
Scheduled Ancient Monument.	Scheduled Monument Consent required for almost any type of work to Victoria Swing Bridge (including temporary storage on the surface of the Scheduled Ancient Monument). Application must be made direct to the Scottish Ministers. Dealt with by Historic Scotland.
Signs.	Traffic and other functional signs generally enjoy “Deemed Consent” providing any illumination is for purposes of warning.
Signalling.	Requires Prior Approval if attached to a building or placed on a pole. Listed Building Consent also needed if attached to Listed Building specified in Schedule 10.
Sound Barriers.	Prior Approval. Sound barriers by definition are not considered a means of enclosure. Hence they fall within the definition of “building” in the 1997 Act and require prior approval.
Street lighting.	None usually, but may need consent in Conservation Area with Article 4 Direction in force.
Substations.	Prior Approval - within definition of “building”.
Trackside equipment cabinets.	None. Plant and equipment is exempt from the definition of “building” in General Permitted Development Order.
Trams.	None.
Tram tracks and associated surfacing within existing roads.	None.
Tram stops and associated equipment.	Prior Approval for those parts defined as a building (eg shelter). While not all parts of the tram stop require prior approval; applications are lodged for tram stops as a whole so that those parts which need approval can be judged in context.

Proposal (A-Z)	Type of Planning Application Required
Trees – removal of, or works to.	None.
Vehicle access to road used by vehicular traffic (formation of or alteration to).	Prior Approval.
Viaducts (Erection of new one or alteration to existing one).	Prior Approval.
Walls (means of enclosure only – see above for “sound barriers” and “retaining walls”).	None within Limits of Deviation. Outwith Limits of Deviation consent required only in the conservation areas or if more than 1m high.

8.7 In addition to those consents identified in the table above, it should be noted that in some cases, for example in respect to the depot and substations, building warrants are also required.

Prior Approvals

8.8 In terms of Section 74 of the Edinburgh Tram (Line One) Act 2006 and Section 73 of the Edinburgh Tram (Line Two) Act 2006, the Town and Country Planning (Scotland) Act 1997 still applies to the works authorised by the Acts and, therefore, despite the general planning permission granted by the Acts, some elements of the works require prior approval under Class 29 in Part 11 of Schedule 1 to the Town and Country Planning (General Permitted Development, Scotland) Order 1992. As can be seen from the table above, these include:

- Any buildings or structures including substations, bridges, tramstops and poles; and
- Any extensions to buildings including any building fixings.

It should be noted that prior approval applies where these elements of the works are either within the ILOD or within the LLAU.

8.9 Any application for Prior Approval can be refused on the following grounds:

- The works ought to be and could reasonably be carried out elsewhere on the land designated specifically in the Act i.e. within the LOD; and / or
- The design or external appearance of the works would injure the amenity of the neighbourhood which is deemed to include the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. It should be noted that this second ground has been extended by virtue of the Acts in order to recognise that the tram runs through a World Heritage Site.

8.10 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 are 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.

8.11 The Tram Design Working Group, which include 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 reached with 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 ensuring 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. The Tram Design Manual is a key consideration in respect of each prior approval application.

8.12 Before the statutory application for Prior Approval is submitted, there is also an additional informal Prior Approval consultation with CEC Planning to show the finalised detailed package for final comment.

- 8.13 SDS has prepared an Approvals and Consents Management Plan (ACMP). It is recognised 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 the approvals and consents to be tracked from design development and pre-application discussions to the conclusion of the approvals and consents process.
- 8.14 The Prior Approval process for tram submissions was approved, on 18 May 2006, as an addition to CEC's Scheme of Delegation 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. This includes 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 reports have also been developed.

Planning permissions

- 8.15 Where any element of the works is to be constructed outside of the LOD, full planning permission must be obtained. In order to minimise the need to design outside the limits, SDS has been having ongoing discussions with the Planning Authority in relation to the planning applications. It is anticipated that given that the scheme is being designed within the LOD, there will be very few planning permissions required for the tram works. However planning permissions may be required for third party works, in particular the work required to the Wanderer's Clubhouse at Murrayfield.

Listed Building Consents

- 8.16 There are many listed buildings abutting the LOD. When the Bills were drafted, a balance was struck between protecting listed buildings and allowing the works to be constructed without the need for further consents. Accordingly, Schedule 10 Part 1 to each of the Acts lists the listed buildings / monuments and specifies the works which can be carried out to those buildings / monuments without the need for further consents.
- 8.17 In addition, it was recognised that affixing a building fixing to a listed building may be unavoidable, given the number of listed buildings with the city centre and down to the Foot of the Walk and Constitution Street. Schedule 10 Part 2 to each of the Acts lists those buildings to which building fixings cannot be affixed without Listed Building Consent. Building fixings also require building owner consent.
- 8.18 SDS has been carrying out the design in accordance with these constraints. However listed building consents will be required as the design is progressed and in some locations there may be no alternative to affix to a listed building.
- 8.19 The timescale for obtaining Listed Building consent is similar to the timescale for obtaining a Prior Approval. However the Scottish Government must be informed once a decision has been made and there is a further 28 days during which they may call in the application.

Scheduled Ancient Monument Consent

- 8.20 Any works which would mean physical works to a Scheduled Ancient Monument requires consent from the Scottish Ministers i.e. Historic Scotland, prior to those works being carried out, in accordance with the Ancient Monuments and Archaeological Areas Act 1979. Although there are two Scheduled Ancient Monuments that are affected by the tram route, it is not envisaged that any of the works will directly physically impact these. There are some obligations in regard to landscaping contained in the Landscape and Habitat Management Plan in the green belt section on Phase 1a between Edinburgh Park Station and Ingliston stops.

Roads Authority Approvals

TTROs

- 8.21 In respect of the TTROs, a strategy has been developed by **tie** 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 impact on the public given the scale of the works.
- 8.22 Given that the construction methodology to be adopted by the Infraco was unknown and the detailed design for the utility diversions not complete, if individual TTROs for specific works on specific roads at specific dates had been obtained, it is likely that the TTROs would have required to be significantly altered, or even remade by CEC, in order to cover, and be in place for, both MUDFA and Infraco at the necessary time.
- 8.23 For this reason, one master TTRO was made for all tram works, including the utility diversion works. That order specifies:
- 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 may remain in force for more than 18 months i.e. it might cover both the MUDFA and Infraco works.
- 8.24 This master TTRO goes through the statutory process once rather than having a series of street specific orders going through the process over several months or even years. The master order covers all of the foreseeable required measures. This approach has already been used in Edinburgh by major utilities' companies. This approach is being and will continue to be underpinned by effective lines of communication between MUDFA, Infraco, **tie** and the Roads Authority. This allows a rolling programme of works to be agreed in advance, within the terms of the master order, and taking account of current circumstances, including other competing demands for road occupation or other utility works.
- 8.25 As the rolling programme and the necessary temporary traffic management measures are brought forward and agreed between the parties, details of the proposed works / measures are publicised in accordance with pre-agreed communication and publication protocols to ensure that the public had reasonable advance notice of all measures and diversions. That is, not too late or too far in advance to be useful. For instance, measures may be agreed in one month slots, two months in advance so that the public are given one month's notice.
- 8.26 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 was a protocol developed as part of the tender process to deal with the communication strategy which is incorporated in the Infraco contract.
- 8.27 Experience with regards of MUDFA works confirms the success of this approach, as no significant negative feedback or publicity has been received on these issues to date.

TROs

- 8.28 The TROs are grouped to reflect the relevant issues and type of measure. There are discrete stationary, moving traffic and consequential measures. This has resulted in a suite of inter-related Orders which also distinguishes between core measures, direct consequential measures and indirect consequential measures.

8.29 The TROs have been developed taking account of the following relevant issues:

a	The relevant statutory procedure.	Some measures trigger a mandatory hearing. Greenway amendments (red regulatory lines) require ministerial consent.
b	The type of measure.	Defines which statutory procedure is applicable. Influences how the TROs should be grouped (static or moving traffic). Ensure that there is no duplication or inconsistency between measures on the same road.
c	Relationship of the measure to the project.	Identify those measures that are necessary to enable the tram to operate in accordance with the approved Business Case (core measures). All other measures are classified as consequential . The final identification and classification depends upon the finalised road design.
d	Categorisation of the Consequential measures.	(i) Direct Consequential – those within or adjacent to the LOD or have a direct causal link to tram; (ii) Indirect Consequential – those that are neither within or adjacent to the LOD but have a relationship to the project; (iii) Contingency measures that may be required post-operation but would be triggered by assessment of the actual wider network impacts of the project.
e	Location of the measure.	The measure might be within, adjacent to or outwith the LOD or within the wider network area. This helps to determine prioritisation of measures and the definition of contractual responsibilities.
f	The technical / design process.	Dictates the scope and duration of the design and traffic modelling process.
g	Prioritisation of measures.	Core measures are the first priority and will be processed to try to manage commercial risk and minimise the gap between the start of the on street Infracore works and the TROs coming into force. The prioritisation of consequential measures depends primarily on the outcome of the traffic modelling and when they should be processed.

8.30 During July 2007, the Scottish Government issued a consultation paper on a proposed amendment to Regulation 8 of the Local Authorities Traffic Orders (Procedure) (Scotland) Regulations 1999. The consultation closes on 15 October 2007 and, if approved by Scottish Ministers, an amendment would be made early in 2008. The effect of the proposed amendment is to replace the requirement for a mandatory public hearing of objections to certain traffic measures with the right to hold a discretionary public hearing of objections. The proposed amendment only covers traffic measures to be made 'in connection with matters already authorised by a Private Act of Parliament'. This means that CEC would be able to give due consideration to the appropriateness of a hearing process given that the tram scheme has the benefit of prior parliamentary scrutiny and approval through such an Act.

8.31 Irrespective of whether or not the Traffic Order Regulations are changed, all of the TROs for the Tram Project will be subjected to a formal statutory process, in line with the statements made by the project promoter during the parliamentary process. The statutory process will involve the Public Deposit of the draft orders to allow members of the public to consider the proposals and to lodge objections or representations with the Council. A formal report on the objections will be submitted to the Council to ensure that the objections are taken into account by the Council when they decide whether or not to hold a public hearing and whether or not to make the Orders.

8.32 The anticipated duration of the statutory process to make the Orders is between eight and 21 months from the time of the Public Deposit of the draft Orders. The anticipated Public Deposit date, following the statutory consultation and the approval of the Council to proceed, is mid May 2008. The date by which the Orders are expected to be made is therefore mid November

2009. However, this depends upon the number of objections to the proposed TROs and whether or not there is a public hearing.

8.33 In terms of the timing of the TROs relative to the commencement of the construction of the on-street sections of the tram, the advice of Senior Counsel has therefore been sought taking into account the Prior Approval of the tram scheme by the Scottish Parliament. The opinion of Senior Counsel is that there is no legal bar to commencing tram infrastructure works under a TTRO, even though the TRO is not yet in place. Senior Counsel has also advised that there is similarly no legal bar to commencing off-street tram infrastructure works in advance of the TROs for the on-street measures being made.

8.34 If, on the assumption that there is no change to the Regulations (para 8.30) and it was felt that accelerating some of the measures was beneficial for the project, it would be necessary to identify which measures could or should be advanced without a public hearing. That would depend on whether or not the measure triggered a mandatory hearing; the number and scope of objections to it and importantly, the decision of the Council as Road Traffic Authority on the need for a discretionary hearing.

8.35 The TRO proposed order suite is as follows:

<i>TRO Ref</i>	<i>Description</i>	<i>Purpose / comment</i>
1	Core Stationary Measures	(a) Revoke the existing waiting, loading, unloading and parking Orders (stationary measures) within the LOD; (b) Introduce no waiting at any time restrictions to those parts of the street within the LOD where waiting would otherwise interfere with the operation of the Tram and prevent it operating in line with the Business Case; (c) Prepare the way for the necessary new parking and loading restrictions to be introduced through Order 2; and (d) Will be subject to a mandatory public hearing unless an amendment to the Regulations is successfully promoted as described in Paragraph 8.31 above.
2	Parking / loading within LOD and adjacent streets	(a) Introduce new loading and parking measures to the available parts of the streets within the LOD that do not adversely affect the running of the tram; (b) Introduce new loading and parking measures to supplement those on the main traffic routes on streets adjacent to the LOD; (c) To avoid a gap between the revocation of the extant stationary measures (Order 1) and the re-application of new loading and parking measures (Order 2) this order should be taken forward in conjunction with Order 1; and (d) This Order is not subject to a mandatory hearing because no existing loading / unloading facilities are being removed.
3	CEC (Greenways) Amendment Order	(a) Order not required. In the interests of public transparency and the desirability of a single enforcement regime covering the entire tram route the 'Greenway' red lines will be revoked and replaced with yellow lines in Orders Nos 1 and 2.
4	Core Moving Traffic measures	(a) Revoke existing prohibitions within the LOD where these need to be replaced, modified or supplemented to allow the tram to operate in line with its Business Case; (b) Introduce new prohibitions (e.g. banned turns, no entries, exclusions of particular traffic classes etc.); and (c) A public hearing is not mandatory for these measures.

5	Consequential measures	<p>(a) Introduce any required type of measure to deal with the consequential effects of the tram;</p> <p>(b) Appropriate contingency measures dealt with in second post-tram phase as explained in paragraph 8.36 below; and</p> <p>(c) Mandatory public hearing only necessary if new loading / unloading measures are required.</p>
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8.36 Order No 5 dealing with the tram consequential effects outside the LOD will have a second, post-tram implementation phase for any necessary contingency measures. This might be occasioned by traffic displacement occurring on a sustained basis in streets that are ill-equipped to deal with sustained significant increases in traffic. Traffic modelling may predict significant traffic changes that may not materialise, or disperses as the overall traffic network adjusts to the tram in the first few weeks and months of its operation. Also, precipitate action to curb perceived traffic intrusion (e.g. by a road closure) may have serious unintended consequences to other traffic routes. Therefore, it is essential to ensure that secondary measures act in the wider public interest. The wider public interests can only be balanced by ensuring that the second phase of the Order proposes measures that have been brought forward in the light of a clearly evidenced need.

Third Party Consents

Side Agreements

8.37 Throughout the Bills' passage through the Scottish Parliament, various agreement were entered into between CEC and either private individuals or commercial interests who had objected to the Bill, in order to give them sufficient comfort to allow them to withdraw their objections.

8.38 Some of these agreements give these third parties the right to agree or approve for example site specific method statements, the design, or the programme before the works commence. All of the obligations in the Side Agreements have been passed down to MUDFA and the Infraco as appropriate to ensure compliance with the Agreements.

Network Rail

8.39 As the Acts do not contain any provisions which would protect NR's assets, a position supported by the Scottish Parliament, **tie** agreed a set of protective provisions with NR. In common with other light rail projects that have interfaces with NR, the protective provisions were a prerequisite to NR removing their technical objection on the basis that they were satisfied that their assets will be safeguarded.

8.40 **tie** has worked closely with CEC and NR to progress the legal requirements of the project, including all necessary NR / **tie** / CEC agreements. The following agreements have already been entered into:

- A Protective Provisions Agreement and a Framework Development Agreement are in place; and
- Development Services Agreement (DSA) which engages NR in the process of reviewing and agreeing the tram scheme design in relation to interface with the railway network.

8.41 A comprehensive legal agreement framework has been set out and is being finalised currently. In addition to the above it includes;

- The license to occupy land for construction (prior to finalising the lease agreement);
- Bridge agreements for new structures crossing the railway;
- Regulatory consents; including revised depot, station and network change consents which will have input from ORR, NR, train operating companies, freight operating companies, and TS;
- Neighbourhood agreements and Operating Code of Practice; and

- The Asset Protection Agreement (APA) regulates the delivery of work during the project construction phase adjacent to NR infrastructure and which will be embodied in the Infraco contract.

8.42 **tie** is also finalising design and works agreements for NR to undertake:

- Line side equipment relocation affected by the “tram footprint”; and
- Immunisation of NR infrastructure.

Both of the above items are on the critical construction path for the project. This is being tackled directly with the engineering experts and the appointment of a specialist Project Manager to deal solely with this interface. Specific agreements are being put in place between **tie** and NR to govern this work including clear identification of the critical milestones.

8.43 NR possession requirements have been advanced as far as possible and progress on all of the above is subject of a monthly director level review between NR and **tie**.

8.44 There are four important issues which will require ongoing management in relation to NR:

- The time that it will take to finalise any decision, negotiation and agreement with NR if it deviates even slightly from NR's codified approach;
- The effect of any NR policy change;
- The generally risk averse nature of NR to all projects which affect their operations; and
- The interaction between the tram project and the various heavy rail schemes already committed or being promoted for example the Airdrie to Bathgate improvements or the Waverley redevelopment.

Scottish Government influence and oversight on these matters will be important, given the ongoing relationship between them (through TS) and NR.

First ScotRail

8.45 **tie** secured an agreement with First ScotRail not to object to the Bills in exchange for agreed protection of its interests at the Haymarket depot (primarily access during, and reinstatement after tram construction works). The physical reconfiguration necessary at Haymarket Station to accommodate the integration of the new tram stop is covered by the APA with NR. It is NR's responsibility to reach agreements in this regard with its tenants at the station. This involves not only ScotRail but other train operating companies: GNER and Virgin and freight operating companies.

BAA

8.46 An agreement was reached with Edinburgh Airport Limited, BAA's operating subsidiary in September 2005. In terms of this agreement, BAA requires to be consulted on various aspects of the project and have the right to approve some aspects, for example method statements. This has already been undertaken in relation to the surveys, the MUDFA contract and the Infraco ITN. There are regular meetings with BAA which are attended by both **tie** and SDS to ensure that all of the issues which require their consent, or in respect of which **tie** requires to consult are being dealt with.

Forth Ports

8.47 An agreement was reached with Forth Ports in June 2005. Forth Ports are entitled to be consulted on and agree on various matters including the construction programme, the site specific method statements and the finishes in the vicinity of Ocean Terminal. Again there is a good working relationship between the parties to ensure that all matters are dealt with timeously.

Building Fixing Agreements

8.48 As well as requiring Prior Approval from the Planning Authority, consent of the building owner, or in the case of a tenement building, the owners, is also required before a building fixing can be affixed to a building. Under Section 16 of the Acts, if the owner does not respond within 28 days of notification, it is a deemed consent. Consent cannot be unreasonably withheld. If it is

viewed that consent is being unreasonably withheld or issued subject to unreasonable conditions the method of determining the issue is by reference to the Sheriff Court.

Environmental Consents

- 8.49 Specialist ecological consents have been obtained through the auspices of the Environmental Management Plan and the LHMP. Licenses such as badger licenses were put in place prior to the works commencing and badger setts were successfully relocated. In addition, consents will be required from both SEPA and Scottish Water in order to control pollution and discharges.

Operation Consents

Her Majesty's Railway Inspectorate and Independent Competent Person

- 8.50 Previously, the tram system required a Case for Safety to be prepared for approval by HMRI. The responsibility for this fell to SDS. In 2006, the Railways and Other Guided Transport Systems (Safety) Regulation 2006 (ROGS) replaced the previous legislation. The impact of the ROGS safety approval regime for the project are:
- There is no requirement for the HMRI to give prior consent or approve a written safety verification scheme;
 - A competent person has to be appointed to provide an independent safety verification of the project; and
 - The Safety Case is replaced by a Safety Management System (refer to section 5 for details of the planned safety assurance regime).
- HMRI will not approve or authorise any of the works undertaken through the ROGS safety approval regime for a tramway. The ICP, in their safety verification role, provides this function. The competent person has been appointed and HMRI have acknowledged the changed safety approval regime.

Third Party works

Side agreements

- 8.51 Some of the Side Agreements provide that certain ancillary works must be carried out, often in advance of the tram works authorised under the Acts. In some cases, these works are essential to allow the tram works to commence.
- 8.52 Work has been performed to establish the scale of these works and their likely cost. The critical path has been established so that the works are programmed to ensure that they do not hold up the Infraco works. In some cases these works have been required to be carried out in advance. However, others are able to be accommodated within the programme for the Infraco works.

Accommodation works

- 8.53 As part of the process of compulsorily acquiring land, some land owners require, by way of compensation, certain boundary treatment works. The precise extent of these works is dependent on the finalised detailed designs and the construction methodology adopted by the Infraco contractor. Provisional estimates are incorporated in the Infraco prices.

Land assembly

Powers under the Acts

- 8.54 The Acts confer rights on CEC, as the authorised undertaker, to compulsorily acquire land and rights in land, both temporarily and permanently, as required for the construction and operation of the tram. The powers under the Acts include the following:
- The right to carry out road works both within and outwith the limits of deviation;

- The right to take temporary possession of land, as identified in the Acts, and subject to giving the necessary notification as prescribed in the Acts for both survey and construction works;
- The right to permanently acquire land within the limits of deviation or the limits of land to be acquired or used respectively for the authorised works or for the purpose specified in the Acts;
- The right to affix building fixings; and
- The right to temporarily enter land to carry out maintenance works.

8.55 Notwithstanding the powers conferred by the Acts, Side Agreements have been entered into with various parties that limit these powers, either in respect of the extent of the LOD, or the timing of the exercise of these powers or which impose additional obligations on CEC, particular in relation to temporary possession of land.

8.56 Although **tie** is managing the land acquisition process, title in the land is being taken by CEC.

Key activities and assumptions

General

8.57 The Land Assembly team at **tie** had prepared a Land Assembly Management Plan (LAMP). It focuses on the procedures, processes and resources required for achieving requisite land ownership and rights (permanent and temporary). The LAMP was based on various assumptions and outlines key activities including the following:

- As land assembly is a design led process, the extent of land and rights required for the construction and operation of the tram is established through liaison between **tie** and SDS;
- A database has been developed based upon refreshed and updated books of reference for the whole of Lines 1 and 2;
- The value of land and rights acquired is being determined independently by the Valuation Office Agency of the Inland Revenue Service (known as the District Valuer or DV); and
- Full cognisance has been taken of the terms of Side Agreements, Letters of Comfort, Letters of undertaking and position statements entered in to between CEC or **tie** and the affected landowners. Agreements have been reached with NR, Edinburgh Airport Limited, Forth Ports, New Ingliston Limited and Waterfront Limited.

8.58 The recommended method of securing title was for CEC to use the General Vesting Declaration (GVD) Procedure and was agreed by both the TPB and the full Council. This allows the process to be completed within a minimum period of three month upon commencement.

8.59 The first set of GVD notices, which outline the intention to secure title under compulsory purchase powers, was sent out by the end of November 2006. Although it did not oblige CEC to purchase the land at that stage, it started the process which is now nearing completion. The first tranche of actual acquisitions was effected in April 2007 and all lands are anticipated to be obtained before the award of the Infraco contract.

MUDFA

8.60 All rights and wayleaves in relation to the diversion of utilities are being secured in advance of works commencing. Where required, licence agreements are agreed in advance and taken up in line with the requirements of the MUDFA programme. This will be undertaken by **tie** and AMIS. It is anticipated that given the powers under the Acts and also under the New Roads and Street Works Acts 1991, it is unlikely that any additional wayleaves will be required in relation to the on-street sections. In relation to the on-street sections, the utilities designers are minimising the need for any wayleaves outwith the limits of deviation. If necessary wayleaves and servitudes can be acquired within the LOD by virtue of Section 24 of the Acts.