

# 4 Week Period Reporting Pack 09/10

**Project Title:** 

Edinburgh Tram Project

Delivery Organisation Period Progress Report

# **Reporting Period:**

Period 06 2009/10

# Transport Scotland Project Manager: John Ramsay

# **Progress Meeting Date:**

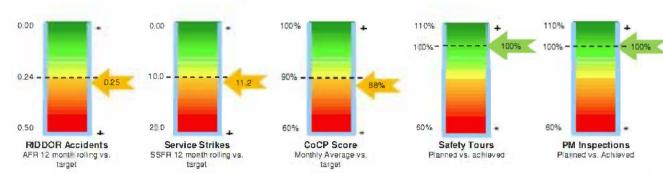
Report authorised by: Steven Bell
Signature:

Date: 18 September Jung

For and on behalf of tie Limited

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# 1 Executive Summary



HS&E ACCIDENTS and INCIDENTS SUMMARY											
Total	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	ENV	RTA	МОР	AFR	SFR
Period	124,881	0	0	1	15	9	0	0	1	0.00	7.21
13 period rolling	1,592,205	1	3	30	225	178	3	16	58	0.25	11.18

- There have been no reportable accidents during Period 6. The 13 period AFR is 0.25 compared to the target, 0.24 accidents per 100,000hrs worked.
- There has been a decrease in the overall service strike frequency for the project, however, a number of water services have been struck by BSC. A new 'record of service damage' form is being used to help identify areas of causation.
- Director's Safety tours and Project Manager inspections have achieved 100% of those planned, however, a concerted effort is still having to be made to carry out joint inspections with the contractor.
- Further CoCP inspection have been carried out by tie, details of which are contained in Appendix B. Joint tie / BSC inspections have identified the main issues on BSC sites as – Provision of PPE, Housekeeping and Planning and Management. These issues have been addressed directly on site and are being monitored.
- Period 6 "Deliver a Safe Tram" inspection metrics were carried out on 4 activities across the project, 2 at Princes Street, 1 at the guided bus-way and 1 at the Depot.

#### **Progress**

Transport Scotland and City of Edinburgh Council have been briefed on the use of the formal Dispute Resolution Process contained within the Infraco contract and this was reported to the full council Meeting on 20<sup>th</sup> August. Strong and <u>full</u> Council support was given to the strategy being adopted by **tie**.

During the period the number of items in formal dispute with BSC has risen to 6. The table below shows the stage of the process each of these disputes is in and indicates, where known, which have been referred to mediation and which to adjudication. This decision is made following the Chief Executive's meeting part of the internal DRP process. **tie** has implemented a robust "Challenge" process to ensure that before any issue is referred to DRP that it has been externally and thoroughly tested prior to referral.

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DRP No	Subject	DRP process commenced	PD Meeting	Position Papers	CEO Meeting	Referral	Decision
3	Hilton Car Park	V	V	V	V	14/09	11/10
4	EOT1	V	<b>√</b>	V	V	Mediation 22/23 Oct	Mediation 22/23 Oct
5a	Gogarburn	<b>√</b>	V	V	21/09	30/09*	27/10*
5b	Carrick Knowe	V	<b>√</b>	V	21/09	30/09*	27/10*
5c(B)	Russell Road	V	1	15/09	2/10	11/10*	7/11*
Α	MUDFA Bev 8	V	1	15/09	2/10	11/10*	7/11*

Commenced by tie	
Commenced by BSC	

<sup>\*</sup>Dates are based on proceeding directly to Adjudication.

Significantly, during the period, as certain items have entered the DRP process, this has allowed **tie** to use a facility within the contract to instruct works in DRP to progress (this is a Clause 80.15 instruction). Instructions to this effect have been issued for 2 of the structures in DRP and work has subsequently started at Carrick Knowe Bridge as a result of this.

The lack of a commercially agreed programme and the decision to apply formal contractual measures to resolve outstanding issues with the BSC consortium presents further risks in relation to the attribution of additional costs and delay to completion of the project. **tie** Ltd has taken extensive legal and technical advice, including Counsel's opinion, and is confident of its position on the key matters in dispute. However, given the nature of the process and the complexity of certain issues, it is unreasonable to expect that all adjudication outcomes will be awarded in the favour of **tie** Ltd and it will also be open to the BSC consortium to use the contract to formally pursue their objectives.

We continue in this report to reflect an outturn estimate of £527.1m. However, given the commercial uncertainties with BSC and continuing delays to the project it is now considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m. Until the key issues are resolved through the contractual and legal process, it will not be possible to forecast accurately a revised budget outturn. It is also not possible at the present time to predict the conclusions of reviews of contingency option programme delivery options, including additional sources of funding.

The contract with the BSC consortium prescribes a timetable for resolution of contractual disputes and it is expected that the budget and programme implications will become increasingly clear during the remainder of 2009.

Regular briefings will be provided to both CEC and Transport Scotland to keep them updated on progress and implications for the project programme and finances of all the above matters, and tie met with TS most recently on 9<sup>th</sup> September 2009.

The cost, programme and risk information in this Period 6 report continues to be based upon an <u>unapproved</u> forecast on the information reported in May 2009. This will be updated once the above actions are progressed.

Overall progress remains behind the master programme, primarily due to:

- Finalisation of the agreement of change delaying the commencement of work;
- Incomplete utility diversions in the On-Street sections caused in part by traffic management constraints;

- Slow mobilisation of INFRACO, including lack of formal sub-contracts being in place;
- Failure of INFRACO to submit preparatory paperwork in a timely manner i.e. Work Package Plans, Method Statements etc;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to INFRACO (now recorded in v49 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated design programme and validation

Agreement of a revised programme is one of the key priorities for the PMP and this was one of the key discussion topics at mediation. Discussions on programme revision and potential extension of time awards to BSC are continuing and remain one of the most significant differences between the parties. During Period 06 **tie** has formally rejected the BSC proposed Rev 2.0 programme. This is likely to be a future DRP topic.

The **tie** live programme currently predicts an Open for Revenue Service date in late **October 2012**. This has slipped slightly since last period and is mainly due to the lack of progress being achieved by INFRACO across the route compounded by delays caused by Utility Diversions at Haymarket, Leith Walk and Newhaven.

As per the previous period reporting **tie** retain an unapproved recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. This remains a **tie** only view as to date a recalibrated programme although now submitted by INFRACO has not been agreed with BSC.

#### Progress - Design

Progress reported in period 6 for design is as follows:

Phase 1a only	Number required		Number	201
	v31	V49	Submitted	Granted
Prior Approvals	49	55	51 (93%)	50 (91%)
Technical Approvals	71	87	77 (86%)	70 (80%)

Reasons for design slippage are being reviewed and recorded each week at the design taskforce meeting which is focused on resolving outstanding design issues. This slippage has been addressed as part of the re-calibration of the programme. **tie** is identifying and implementing opportunities to mitigate the impacts of this slippage.

#### Progress - MUDFA

Progress on MUDFA works during Period 6 is presented below (this excludes the remaining utility works being undertaken outwith the MUDFA contract on sections 1A & 7B):

Rev.08 Figures - Period 06 2009-10		Period		Cumulative		Delta
MUDFA PERIOD 06 PROGRESS	Plan	Actual		Plan	Actual	
Section 1a Newhaven to Foot of the Walk	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 1b Foot of the Walk to McDonald Road	0.0%	0.0%	0.0%	100.0%	99.9%	-0.1%
Section 1c McDonald Road to Princes Street West	5.5%	2.2%	-3.3%	100.0%	91.3%	-8.7%
Section 1d Princes Street West to Haymarket	6.1%	1.4%	-4.6%	100.0%	98.0%	-2.0%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	3.0%	1.0%	-2.0%	100.0%	96.8%	-3.2%
Section 2 Haymarket to Roseburn Junction	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5a Roseburn Junction to Balgreen Road	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5b Balgreen Road to Edinburgh Park Central	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5c Edinburgh Park Central to Gogarburn	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 6 Gogar Depot	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 7a Gogarburn to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%

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Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	2.4%	0.8%	-1.6%	100.0%	97.4%	-2.6%

#### Key points to note are:

- Progress at the end of period 6 is 97.4% complete for all MUDFA works. 38,462 linear m of diversions have been completed, with 311 linear m achieved in the period against a planned 944 linear m;
- The majority of the works are now concentrated around the Haymarket and York Place to Picardy sections of the route. The reduced output is again representative of some of the congestion issues with existing utilities;
- Carillion works within Section 1A are complete, and tender award for the remainder of the Section 1A utilities diversions is expected during Period 7;
- SGN service connections on Leith Walk were completed on 11/09/09, and connection works are ongoing at Shandwick Place:
- BT cabling works continue progressing well at three locations;
- No significant safety incidents occurred during the period, and as-built progress has been positive and in maintaining alignment with agreed programme dates.

#### Progress – INFRACO

The project continues to experience problems with slow progress for INFRACO works and, in particular, the appointment of direct BSC resource and the final appointment of the main package contractors. The BSC sub-contractors continue to operate with Limited Letters of Intent whilst awaiting conclusion of the full sub-contracts. Slow provision of estimates and finalisation of the agreement of change - Base Date Design Information (BDDI) to IFC is delaying the commencement of works at various locations including at Haymarket viaduct, Russell road bridge, Murrayfield pitches Retaining Wall, Baird Drive Retaining Wall, Carricknowe bridge, Depot building and Tower Place bridge, although in the period tie has issued instructions in relation to 2 structures in the DRP process to get work started. These are Carrick Knowe where BSC have not mobilised and Russell Road Retaining Wall 4.

The work has continued on a number of worksites including:

#### Section 1C/1D: City Centre Princes Street:

- In both the east and west sections of the site work has continued with track formation preparation, track slab construction, track laying and slab construction; central reserve works; carriageway formation preparation, sub-base and base course works and kerbing and footpath works. Work has now also commenced at both Lothian Road junction and at the foot of the Mound;
- A programme is being developed to ensure that both bus shelters and trackers can be installed and operational before the end of November;
- Princes Street is 64 % complete and due for handback to CEC by 28<sup>th</sup> November.

#### Section 5B Balgreen Road to Edinburgh Park Central:

- At the guided bus way section piling works started and 1/3<sup>rd</sup> of section now available to start Track works. Track works to commence early Period 7;
- Edinburgh Park Station Bridge: BSC continued to work on diaphragm construction, deck slab and cope – 74% complete.

# Section 5C Edinburgh Park Central to Gogarburn:

 A8 underpass combined phase 1 & 2 is on hold. Further work required to quantify scope of work required by Scottish Power to confirm status of existing cables.

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Construction methodology has been agreed with Telecoms companies for a recommencement in period 07.

#### Section 6 Gogar Depot

- Depot Access Road and Depot Building Foundations started on 31<sup>st</sup> August 2009; 76 out of 263 pours completed;
- Depot Building Steelwork due to start late September 2009.

#### Section 7 Gogarburn to Edinburgh Airport

- Gogarburn Bridge replacement piers and capping beam have been constructed.
   Bridge Decking works started. 64% complete:
- Gogar Culvert No.1 recommenced during Period 06;
- Gogar Culvert No.3 recommenced during Period 06.

Progress is being monitored against the Revision 1 programme. The summary milestones against the agreed INFRACO contract and the short term Rev 1 programme milestones are shown in the table below.

Milestones	Period 06		Cumulative (S	Contract	
	Planned	Actual	Planned Actual		Planned to P06
Prelims	2	2	53	53	53
Construction	5	4	46	45	621

#### Progress - TRAMCO

Good progress continues to be made with the progress of deliverables against the schedule. Fabrication has commenced on the body shell for the 10<sup>th</sup> tram. Internal fit out and wiring continues for Trams 2 & 3 and the first tram has started Factory Acceptance Tests. A contingency is being investigated for storage and testing should the first trams be complete before the depot is ready to receive them.

#### **Preparing for Operations**

tie has launched a new workstream know as 'Preparing for Operations'. This is a joint initiative with TEL and is focussed on getting ready for the Testing & Commissioning phases as well as the operational introduction of trams. Closely related to this, tie has recently notified Transdev of its intent to exercise its option to conclude the existing contractual arrangements as allowed for in the DPOFA contract. Discussions about an ongoing relationship are underway.

## Progress - Testing & Commissioning

The process for acceptance of the Edinburgh Tram is designed to ensure that it is delivered in an acceptably safe, compliant and efficient manner. This process is undertaken via the testing and commissioning regime to validate and verify the system against applicable standards. To this end, a number of processes are underway including:

- Design Assurance. This process being undertaken by BSC(SDS)/tie;
- Quality Checking: 11 of the 37 BSC inspections and test plans are in progress;
- Systems Safety: Safety verification plans are in place and this process of verification is underway with INFRACO, the ICP, TEL and Transdev all involved in the process.

BSC have produced Inspection and Test Plans (ITP's) for the current set of construction works, however they have not yet produced a consolidated Test and Commissioning Plan.

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Constituent elements are available from CAF, the tram manufacturer, the Operator and an overall framework from TEL exists to cover the activities.

It is intended over the next three periods to obtain collective engagement on testing and commissioning, and agreement to the formation of a project wide multi-disciplinary test coordination team as part of the "Preparing for Operations" key workstream.

# Progress - Interface with 3rd Party Projects: Gogar Surface Station

At the end of Period 6 the baselined design phase was 15% complete compared with 19% planned. The cost of work done is £130k compared with £170k planned. The forecast outturn remains unaffected. This reflects the slower progress made by SDS as the optioneering exercise was being completed.

The impact of Gogar Interchange on **tie**'s Authorised Undertaker role for EARL needs to be regularised such that any potential conflict of interest is addressed. This is being pursued directly with Transport Scotland.

**tie** will update its programme for Gogar Interchange by 22/9 to incorporate the updated Infraco design programme. This programme will then be adjusted together with TS & NR to produce an agreed integrated programme for the Gogar Interchange.

Project management meetings have continued between **tie**, TS and NR and a further design workshop took place on 19 August. Network Rail is arranging a further workshop for Period 7 as well as regular contact between designers.

Mott MacDonald has provided revised plans and sections and tie will produce an update of the budget cost for discussion with Transport Scotland in Period 7 in line with provision of revised estimates by Network Rail.

#### Progress - Other

# Temporary traffic regulation orders (TTROs)

- No major traffic switches implemented in the period;
- Traffic management planning ongoing for Princes St Phase 3, Haymarket and Picardy Place:
- It is looking increasingly likely that buses will be returning to Princes Street at the end of November – this will be confirmed by CEC on 29<sup>th</sup> September 2009. Traffic Management plans for this major traffic switch are currently under development.

#### <u>Traffic regulation orders (TROs)</u>

- A TRO programme is in place to ensure that the first order TRO 1, which will allow for operation of the tram system, envisages the order being made in July 2010;
- Following TPB and pending CEC approval on 22 September, it is expected that the statutory consultation process to commence in early October 2009.

# Network Rail

- INFRACO has now delivered its EMC Management Plan and EMC Strategy for NR infrastructure assets and established the scope for the immunisation works;
- INFRACO will be developing the full assurance case for NR acceptance. Preliminary assurance case to enable traction power testing and commissioning has been completed. Further assurance will be provided up to, and including, bringing into service.

#### Third party interfaces

• NR – the Bridge Agreements are not yet concluded. There is an outstanding issue on indemnities to close out. CEC are taking this matter up directly with TS. The Operating Agreement draft with NR is currently on hold pending resolution of the same indemnities issue that is concerning CEC with the Bridge Agreement. Both matters are with CEC for resolution.

- Forth Ports Forth Ports have introduced a new clause into the Agreement drafting which seeks to link payment for the Tram works with the Planning Approval for the Leith Harbour Development, this is unacceptable to CEC and the matter has been raised for resolution at a senior level.
- Haymarket car park compensation tie have agreed compensation with NR. tie continue to discuss with TS the additional compensation payable to First ScotRail, as a result of the extension of the FSR franchise from Nov 2011 to Nov 2014. It is believed that this should have been allowed for in the franchise extension discussions between TS and FSR. tie plan to take the matter up directly with TS;
- Building fixings the process of lodging court submissions has commenced with 9 applications lodged in the period. The building fixing programme will commence in Spring 2010;

# BAA - Burnside Road (BAA) Raynesway Construction.

- Works commenced on 10<sup>th</sup> August 09 and are currently on programme;
- Generally planned Completion Date is maintained (January 2010).

#### Section 7B Utilities

- MUD works The MUD contractor (Farrans) continues on site;
- The installation of the gas main is now 95% complete requiring tie-ins at both ends;
- The multi-utility trench is 75% installed and backfilled.

# Hilton Car Park & Phase 1

INFRACO – No works have commenced. Reviewable Tram Works Design (RTWD) Issued. BAA response received. Formal DRP started and expect work to commence on car park works on 28/09/09.

#### Section 1 Utilities

 Invitation to Tender documents (ITT) sent to 5 companies (Farrans, Morrisons, Raynesway, Clancy Docwra and UUPLC). Tenders returned on 11-Sept-09 and award expected 2/10/09.

# Fast link modifications (Front Line)

- Works completed.
- BT manhole is to be built after the Scottish Power cable has been diverted.

#### Murrayfield Pitches (Souters)

 Final accounts now agreed. Subject to works being carried out during maintenance and establishment period.



# Archaeological works at Constitution Street (Frontline):

- The archaeological works have now recovered in excess of 280 skeletons and this figure will rise beyond the 300 mark prior to the end of the works;
- Reinstatement of the next area approximately 20 metres long commenced;
- Because of the large number of skeletons found and potential post excavation works the budget for this work is under threat. This is being reviewed and will be reported in future reports once the scale of post excavation works including carbon dating, reporting and re-internment is scoped.

#### Cost

#### Current Financial Year

The budget for Phase 1a in 2009/10 is £150.1m (forecast £119.7m), which was produced linking the **tie** re-baselined programme to Infraco construction milestones. **tie** have escalated four key issues to Dispute Resolution Procedure (DRP) and BSC have escalated two issues following the failure of mediation to bring both parties to an agreement. It is anticipated that a fully agreed programme will not be made available from the Infraco contractor until key DRP issues have been resolved.

The unresolved commercial issues introduced a high degree of uncertainty to the outturn costs for financial year 09/10 in relation to activities which the Infraco may not start until commercial differences are resolved and **tie** may not have sufficient contractual leverage to instruct commencement. The phase 1(a) outturn figure for 2009/10 of £119.7m (£150.1m period 5) has been fully re-assessed in period 6 in-line with **tie**'s latest internal view of programme, coupled with Project Managers informed view of Infraco deliverables in 2009/10. The reduction in forecast this month is in-line with the high-side sensitivity flagged in the period 5 TS report.

The ETP Phase 1(a) 2009/10 outturn (£119.7m) is particularly sensitive to Infraco milestone achievement. Our forecast is dependent upon work commencing on the key structural and on-street works flagged below, with the values forecast to be achieved this financial year shown in brackets.

It is assumed that structural work will recommence on the Haymarket Viaduct (£450k) by December and the A8 Underpass (£653k) is also assumed to have progressed to a stage where milestones are being achieved in January. Along the railway corridor works are due to begin at Carrick Knowe (£348k) in September; and Russell Road Retaining Wall (£349k), Baird Drive Retaining Wall (£185k) and Balgreen Road Bridge (£411k) will all start in January/February 2010.

In addition, for track, we anticipate that the Guided Busway (£1.3m) will be complete by the end of March. Haymarket Yards (£1.3m) and the area between Saughton and Edinburgh Park (£1.8m) are assumed to commence in December/January. We anticipate that the Depot milestones will be 75% (£6.5m) complete by March 2010.

In the On-street section, we anticipate Tower Bridge piling (£523k) starting in October, to be complete by end March 2010. Leith Walk Track and Highways (£1.5m) anticipate a January start. St. Andrews Square Track and Highways (£600k) forecast is also reliant upon a February start date. Princes St works (£2.3m) are ongoing and works at Shandwick Place (£800k) are anticipated to start September/October 2009.

Funding available from TS for the project in 2009/10 is £149m. The TS share of this year's updated forecast (£122.9m which includes a £3.9m fee payable to BSC for the postponement of Phase 1b) is £112.8m, giving available headroom of £36.2m.

# Actual YTD P6 & forecast P7-P13 FY09/10

£m	YTD P6	Forecast P7 - P13,09/10	Total FY09/10
Infrastructure and vehicles	32.0	52.9	84.9
Utilities diversions	7.5	0.8	8.3
Design	1.2	1.3	2.5
Land and compensation	0.7	0.9	1.6
Resources and insurance	6.4	8.5	15.0
Base costs	47.8	64.4	112.2
Risk allowance	-0.0	7.5	7.5
Total Phase 1a	47.8	71.9	119.7

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Phase 1a COWD to Period 6 is £47.8m (Period 5 is £40.3m) against budget £54.2m. The main drivers for the -£6.4m variance are: the timing of Infraco works costs forecast in 2009/10 offset by MUDFA costs incurred over the original plan.

Forecast payment of £3.2m was made to the Infraco Contractor in August relating to phase 1b costs.

#### Total Project Anticipated Forecast Cost

Re-baselined Phase 1a AFC and profiling

£m	Cum	Actual	FY	FY	FY	AFC
	FY07/08	08/09	09/10	10/11	11/12	
Infrastructure and vehicles	30.7	45.4	84.9	102.6	34.3	297.8
Utilities diversions	18.4	33.4	8.3	0.0	0.0	60.1
Design	21.4	4.7	2.5	1.1	0.1	29.8
Land and compensation	16.8	1.7	1.6	0.1	0.8	21.0
Resources and insurance	42.7	15.8	15.0	10.6	9.8	93.8
Base costs	130.0	101.0	112.2	114.3	44.9	502.5
Risk Allowance	0.0	0.0	7.5	9.6	7.5	24.6
Total Phase 1a	130.0	101.0	119.7	123.9	52.5	527.1
Phase 1b postponement	3.0	0.0	3.2	0.0	0.0	6.2
Total Phase 1a and Phase 1b	133.1	101.0	122.9	123.9	52.5	533.3

The table above reflects the base costs and risks aligned to the **tie** re-baselined programme (Feb-12), and is informed by the re-alignment of the Infraco milestones schedule for 2009/10 in-line with the latest live programme and Project Management assessment of deliverables. The AFC for Phase 1a above includes an <u>unapproved</u> increase of £15.1m to the project risk allowance. The <u>approved</u> cost estimate for delivery of Phase1a of the project remains at £512m. The phasing of the £527.1m has been updated in period 6 by **tie**, and will be further updated when there is an updated agreed programme with the Infraco contractor.

The latest forecast view includes  $\mathfrak{L}3.2m$  of costs relating to Phase 1b which crystallised as contractually payable to BSC due to the postponement of Phase 1b (this will require to be covered by current funding). Coupled with the re-baselined forecast, there is  $\mathfrak{L}11.7m$  of funding headroom within the  $\mathfrak{L}545m$  total funding available.

# Risk & Opportunity

There were twelve risk reviews held in the period. Two items were closed on the Infraco concerns register and 7 items added. There were sixteen risk draw downs approved in the period totaling  $\mathfrak{L}731,675$ . These are detailed later in this report. This leaves a risk and contingency balance of  $\mathfrak{L}8,780,397$  (based upon the approved Project Risk Allowance at Financial Close).

The Project Risk Allowance at financial close was £30,336,196. The Project Risk Allocation has reduced by £731,675 in the period. Total drawdowns to the end of Period 6 09/10 now total £21,555,799. Remaining risk balance based on the approved QRA is £8,780,397.

All existing risks, as well as those recently added, are being reviewed to ensure the QRA output is as accurate as is reasonably possible. It is accepted that the additional risks and increase in QRA output are currently <u>unapproved</u>. These are within the <u>unapproved</u> range in costs provided to TS on 26<sup>th</sup> May. tie will continue to report on the risk allocation at Financial Close until a new budget (with an updated QRA) is approved.

Approved drawdown applications on the project risk allocation in Period 6, amount to £731,675.

#### Communications/Customer Service

#### Media / Press Activity

Media Coverage for Period 6 has been extensive as usual, with articles relating to the project appearing daily in various local newspapers and intermittently in national publications.

Positive news pieces included a story in The Herald with regard to a Carbon Emissions report by the Scottish Government. Coverage of the progress made on the Gogarburn bridge works and the Princes Street reinstatement also made for positive press for the project. A profile of our extensive archaeological works for the Edinburgh Trams website was conducted using Bit TV. John Lawson, Head of Archaeology CEC and two contractors, Headlands and GUARD, where interviewed as part of the profile.

Upcoming media stories for Period 7 include a profile on Women and Construction, a "Day in the Life of the Logistics team" piece along with a story highlighting the new Tramformer scheme for Primary Schools which promotes awareness of the project and safety around worksites. Another profile piece concerning Richard Jeffrey having reached 4 months on the project will be printed during the first week of Period 7.

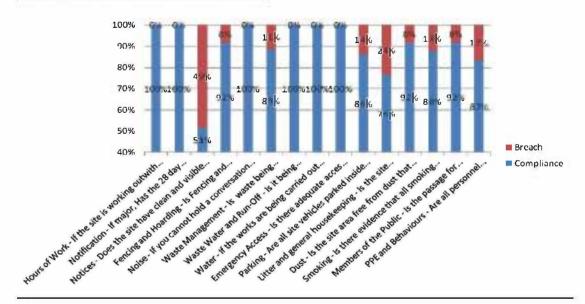
#### **Customer Service Activity**

Overall, correspondence from Period 6 has fallen by 99 contacts from Period 5. Each week logged under 100 contacts, with week 3 only recording 59 contacts.

Information requests constitute the majority of all correspondence for Period 6, with 219 out of the total 299 contacts made regarding information on the project and its various components. This trend has not differed from previous Periods, however the total requests for information dropped by 106 from Period 5. Typical enquires included information on Gas Abandonment works on Leith Walk, parking suspensions, Haymarket works and timescales for various works sites across the route.

Period 6 Complaints (43) and COCP Complaints (14) have increased since Period 5 by 14 and 4 contacts. Weeks 1 and 3 especially logged high numbers of complaints with 10 and 17 being recorded by the Customer Service team. With 17 complaints during week 3, issues concerning alleged inconsistent information on notifications and lack of completion dates on signage at work sites. COCP complaints were logged concerning similar issues of signage not being accurate.

#### Code of Construction Practice Compliance



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## Public Information Planning

Various pieces of signage have been produced for different areas and events. Open for Business signage was designed and produced for Frederick Street, Murrayfield and the Conan Doyle bar. Banners were also made for the Edinburgh Festival firework display.

A strategy planning meeting has taken place in preparation for works on York Place and London road, while consultations with Broughton Community Council are to take place regarding works in the area. Regular meetings are also held with Parliamentary MSPs regarding the project and its progress.

## Website / Internet Communications

There were 13102 visits to the <u>www.edinburghtrams.com</u> website this period, with the number of followers on twitter rising to 222 against last period's 116. Facebook interaction and membership has also risen with 290 'fans' now following our facebook page as compared with last period's 183.

Video podcasts were introduced half-way through the period to <a href="www.edinburghtrams.com">www.edinburghtrams.com</a>, and the Apple iTunes store. While it is not possible to track how many people subscribe for these updates via iTunes, 773 people accessed the podcast feed on our servers, indicating that at least this many people viewed the podcast online or downloaded it.

#### Logistics

Period 6 Logistics figures again remain constant at roughly 340 inbound deliveries per week. Outbound deliveries however dropped significantly from the 70 recorded during Period 5. Between week 1 and week 2 during Period 6 Outbound deliveries dropped by 27, from 34 to 7 deliveries. Figures for boxes, cages and rails delivered as part of the inbound deliveries also dropped by around 400 each between week 1 and 2 also. Superdrug delivery point has been moved to Hanover Street due the street being cleared of difficulties.

## Partner and Stakeholder Communications

In the last month, Tramformer presentations have been conducted at 17 primary schools in Edinburgh. Recruitment is now under way, and 2 pupils are being selected from each participating school. Visits to sites will take place next month.

We have also been involved in running workshops in conjunction with Scottish Businesses for Communities. The pilot programme ran at Craigroyston High School this month, 8 workshops were run to a total of 80 Primary 7 pupils.

Edinburgh Trams was also represented at the Scottish Transport Convention on the 15/09/09 with an information stand and employees on hand to discuss with attendees the progress of the project.

# Freedom of Information Requests

For Period 6, a total of 8 Freedom of Information requests have been dealt with. Of the 8 requests, 5 were completed, 2 are waiting to be signed off for completion while one request is still in progress. One request has also gone to the Information Commissioner for consideration.

# Winter Festival

A Marketing and PR working group has been set up comprising of professionals from City of Edinburgh Council, tie ltd, DEMA, Winter Festivals and retailers in the City Centre. The group is continuing to meet to discuss the proposals for this year's Winter Festival and to insure the success of the festive celebrations.

A report on the Princes Street Christmas proposals will be consider at the next Policy and Strategy Committee on 29 September. This will consider the main options for managing Princes Street over the Winter Festivals period in light of discussions undertaken with city

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centre retailers, and to determine when buses, taxis and cycles will be returned to Princes Street following the completion of the tram construction works. An update will be provided in the next report.

# 2 Progress

# 2.1 Overall

The cost, programme and risk information in this Period 6 report continues to be based upon an <u>unapproved</u> forecast on the information reported in May 2009. This will be updated once the above actions are progressed.

Overall progress remains behind the master programme, primarily due to:

- Finalisation of the agreement of change delaying the commencement of work;
- Incomplete utility diversions in the On-Street sections caused in part by traffic management constraints;
- Slow mobilisation of INFRACO, including lack of formal sub-contracts being in place;
- Failure of INFRACO to submit preparatory paperwork in a timely manner i.e. Work Package Plans, Method Statements etc;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to INFRACO (now recorded in v49 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated design programme and validation

Agreement of a revised programme is one of the key priorities for the PMP and this was one of the key discussion topics at mediation. Discussions on programme revision and potential extension of time awards to BSC are continuing and remain one of the most significant differences between the parties. During Period 06 **tie** have formally rejected the BSC proposed Rev 2.0 programme.

The **tie** live programme currently predicts an Open for Revenue Service date in late **October 2012**. This has slipped slightly since last period and is mainly due to the lack of progress being achieved by INFRACO across the route compounded by delays caused by Utility Diversions at Haymarket, Leith Walk and Newhaven.

As per the previous period reporting **tie** retain an <u>unapproved</u> recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. This is still a **tie** only view as, to date a recalibrated programme although now submitted by INFRACO has not been agreed with INFRACO. **tie** has commented on submissions received from INFRACO and following detailed discussions with both teams without resolution **tie**, as mentioned above, have now formally rejected the proposed Rev 2.0 submission. **tie** continue to record and monitor the causes and effects of delay.

The table below remains as was previously reported and as well as the recalibrated baseline programme it also reflects a completely unmitigated programme <u>as a control scenario only.</u> This is an <u>unapproved</u> delay to the Open for Revenue Service date. On a section by section basis there are "swings and roundabouts" identified in terms of improvement / degradation of delivery dates. Integration of these sections by BSC is now underway and the re-baselined programme assumes the all logic changes will be accepted by BSC.

Area	Description	Unmitigated Finish	Re-baseline Finish
Section 1A	Newhaven Road to Foot of the Walk	03-MAY-12	08-SEP-11
Section 1B	Foot of the Walk to McDonald Road	10-JAN-12	09-SEP-11
Section 1C	McDonald Road to Princes Street west	28-MAR-12	06-SEP-11
Section 1D	Princes Street west to Haymarket	19-OCT-11	17-MAR-11
Section 2A	Haymarket to Roseburn junction	14-FEB-11	28-JUL-10
Section 5A	Roseburn Junction to Balgreen Road	20-MAR-12	17-JUN-11
Section 5B	Balgreen Road to Edinburgh Park central	23-JUN-11	04-FEB-11
Section 5C	Edinburgh Park Central to Gogarburn	24-OCT-11	20-JAN-11

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Section 6A	Gogar depot	28-MAR-11	15-OCT-10
Section 7A	Gogarburn to Ingliston Park and Ride	07-JUL-11	11-MAR-11
Section 7B	Ingliston Park and Ride to Airport	26-JUL-11	11-MAR-11
Section A	Depot (ready to receive trams)	21-JAN-11	15-OCT-10
Section B	Test track	07-JUL-11	27-DEC-10
Section C	All construction complete	20-APR-12	27-AUG-11
Section D	Open for Revenue Service	17-OCT-12	23-FEB-12

Importantly, the re-baseline programme does not take account of many opportunities including:

- 1. Improved productivity rates Princes Street and Depot are proving to be important tests in this regard;
- 2. Embargo relaxations;
- 3. Alternative construction methodologies to recover time;
- 4. Adjustments to the testing and commissioning phase (the original programme window has been held); or
- 5. Partial opening options.

# 2.2 Dispute Resolution

Transport Scotland and City of Edinburgh Council have been briefed on the use of the formal Dispute Resolution Process contained within the Infraco contract and this was reported to the full council Meeting on 20<sup>th</sup> August. Strong and <u>full</u> Council support was given to the strategy being adopted by **tie**.

During the period the number of items in dispute with BSC has risen to 6. The table below shows the stage of the process each of these disputes is in and indicates, where known, which have been referred to mediation and which to adjudication. This decision is made following the Chief Executive's meeting part of the internal DRP process. **tie** has implemented a robust "Challenge" process to ensure that before any issue is referred to DRP that it has been externally and thoroughly tested prior to referral.

DRP No	Subject	DRP process commenced	PD Meeting	Position Papers	CEO Meeting	Referral	Decision
3	Hilton Car Park	V	V	V	V	14/09	11/10
4	EOT1	V	V	1	√	Mediation 22/23 Oct	Mediation 22/23 Oct
5a	Gogarburn	V	V	V	21/09	30/09*	27/10*
5b	Carrick Knowe	V	V	V	21/09	30/09*	27/10*
5c(B)	Russell Road	V	V	15/09	2/10	11/10*	7/11*
A	MUDFA Rev 8	V	V	15/09	2/10	11/10*	7/11*

Commenced by tie
Commenced by BSC

Significantly, during the period, as certain items have entered the DRP process, this has allowed **tie** to use a facility within the contract to instruct works in DRP to progress (this is a Clause 80.15 instruction). Instructions to this effect have been issued for 2 of the structures in DRP and work has subsequently started at Carrick Knowe Bridge as a result of this.

<sup>\*</sup>Dates are based on proceeding directly to Adjudication.

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The lack of a commercially agreed programme and the decision to apply formal contractual measures to resolve outstanding issues with the BSC consortium presents further risks in relation to the attribution of additional costs and delay to completion of the project. **tie** Ltd has taken extensive legal and technical advice, including Counsel's opinion, and is confident of its position on the key matters in dispute. However, given the nature of the process and the complexity of certain issues, it is unreasonable to expect that all adjudication outcomes will be awarded in the favour of **tie** Ltd and it will also be open to the BSC consortium to use the contract to formally pursue their objectives.

We continue in this report to reflect an outturn estimate of £527.1 m. However, given the commercial uncertainties with BSC and continuing delays to the project it is now considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m. Until the key issues are resolved through the contractual and legal process, it will not be possible to forecast accurately a revised budget outturn. It is also not possible at the present time to predict the conclusions of reviews of contingency option programme delivery options, including additional sources of funding.

The contract with the BSC consortium prescribes a timetable for resolution of contractual disputes and it is expected that the budget and programme implications will become increasingly clear during the remainder of 2009.

Regular briefings will be provided to both CEC and Transport Scotland to keep them updated on progress and implications for the project programme and finances of all the above matters, and tie met with TS most recently on 9<sup>th</sup> September 2009.

The cost, programme and risk information in this Period 6 report continues to be based upon an <u>unapproved</u> forecast on the information reported in May 2009. This will be updated once the above actions are progressed.

Overall progress remains behind the master programme, primarily due to:

- Finalisation of the agreement of change delaying the commencement of work;
- Incomplete utility diversions in the On-Street sections caused in part by traffic management constraints;
- Slow mobilisation of INFRACO, including lack of formal sub-contracts being in place;
- Failure of INFRACO to submit preparatory paperwork in a timely manner i.e. Work Package Plans, Method Statements etc;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to INFRACO (now recorded in v49 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated design programme and validation

Agreement of a revised programme is one of the key priorities for the PMP and this was one of the key discussion topics at mediation. Discussions on programme revision and potential extension of time awards to BSC are continuing and remain one of the most significant differences between the parties. During Period 06 **tie** has formally rejected the BSC proposed Rev 2.0 programme. This is likely to be a future DRP topic.

The **tie** live programme currently predicts an Open for Revenue Service date in late **October 2012**. This has slipped slightly since last period and is mainly due to the lack of progress being achieved by INFRACO across the route compounded by delays caused by Utility Diversions at Haymarket, Leith Walk and Newhaven.

As per the previous period reporting **tie** retain an unapproved recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. This remains a **tie** only view as to date a recalibrated programme although now submitted by INFRACO has not been agreed with BSC.

# 2.3 Design

## **IFC Design**

Approvals and Consents are measured at V48 and are progressing as follows:

- IFCs Phase 1a 80 issued out of 124 (a number of new IFCs included in V45 -V47 programmes);
- Prior Approvals are progressing well with 91% granted, four left to be submitted (the RBS Gogarburn Tramstop, Murrayfield Accommodation Works, Modifications to Murrayfield TS retaining Wall & Gogar Interchange) and 6 left to be granted;
- Technical approvals also progress well with 82% granted (from an increased no. of TAA),
   Ten remaining to be submitted and 19 (7 from v31) left to be granted;
- Structures approvals are progressing well 6 to date remain to be approved and all original structures in V31 have been approved;
- Roads approvals Two areas remain outstanding for Technical Approval in Phase 1a (1A3 & 1C2);
- Scottish Water has sent formal acceptances to BSC for all sections excepting 1A3, 1C2 & 1C1. BSC have responded to these acceptances; the permit for construction for section 6 was issued 27/07/09;
- Sections 1B, 1D, 1C3, 5B & 5C close reports have been signed off by CEC, subject to BSC concluding any concessions included in the reports during construction. CEC are reviewing all other sections based on the prioritisation list provided by BSC.

Phase 1a only	Number required		Number	
	<b>v</b> 31	V49	Submitted	Granted
Prior Approvals	49	55	51 (93%)	50 (91%)
Technical Approvals	71	87	77 (86%)	70 (80%)

Reasons for design slippage are being reviewed and recorded each week at the design taskforce meeting which is focused on resolving outstanding design issues. This slippage has been addressed as part of the re-calibration of the programme. **tie** is identifying and implementing opportunities to mitigate the impacts of this slippage.

Although there is evidence of better management of SDS by BSC, this has not yet resulted in improved design performance. The approvals task force has been supplemented by a Design Progress and Design Issues meeting to provide additional management focus on design resolution. V47 includes a number of design integration activities and the impact of these will be analysed over the coming period – it should be noted that this is a consortium issue to manage and **tie** will provide support in this respect. **tie** has implemented an extensive programme of site based monitoring to validate & verify the installation of works in line with an integrated design assured construction.

## 2.4 Utility works (MUDFA)

Progress on MUDFA works during Period 6 is presented below (this excludes the remaining utility works being undertaken outwith the MUDFA contract on sections 1A & 7B):

Rev.08 Figures - Period 06 2009-10	Pe	eriod	Delta	Cumulative		Delta
MUDFA PERIOD 06 PROGRESS	Plan	Actual		Plan	Actual	
Section 1a Newhaven to Foot of the Walk	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 1b Foot of the Walk to McDonald Road	0.0%	0.0%	0.0%	100.0%	99.9%	-0.1%
Section 1c McDonald Road to Princes Street West	5.5%	2.2%	-3.3%	100.0%	91.3%	-8.7%
Section 1d Princes Street West to Haymarket	6.1%	1.4%	-4.6%	100.0%	98.0%	-2.0%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	3.0%	1.0%	-2.0%	100.0%	96.8%	-3.2%
Section 2 Haymarket to Roseburn Junction	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5a Roseburn Junction to Balgreen Road	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5b Balgreen Road to Edinburgh Park Central	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%

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Section 5c Edinburgh Park Central to Gogarburn	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 6 Gogar Depot	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 7a Gogarburn to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	2.4%	0.8%	-1.6%	100.0%	97.4%	-2.6%

# Key points to note are:

- Progress at the end of period 6 is 97.4% complete for all MUDFA works. 38,462 linear m of diversions have been completed, with 311 linear m achieved in the period against a planned 944 linear m;
- The majority of the works are now concentrated around the Haymarket and York Place to Picardy sections of the route. The reduced output is again representative of some of the congestion issues with existing utilities;
- Carillion works within Section 1A are complete, and tender award for the remainder of the Section 1A utilities diversions is expected during Period 7;
- SGN service connections on Leith Walk were completed on 11/09/09, and connection works are ongoing at Shandwick Place;
- BT cabling works continue progressing well at three locations;
- No significant safety incidents occurred during the period, and as-built progress has been positive and in maintaining alignment with agreed programme dates.

Section	Commentary
Section 1a Newhaven to Foot of the Walk	Plates 1-10 transferred out of Carillion's scope of works Plates 15, 16, 17, (Baltic St Junction) Design due 02 Oct 2009 Gas Service Transfers works continue in Constitution Street between Duke Street and Mitchell Street, 2 additional connections to do Expected finish 11 Sept 2009 Gas Abandonments: Abandonments from Foot of the Walk to Mitchell St (Plates 18 to 21)-Access to deliver gas abandonments to be assessed.
Section 1b Foot of the Walk to McDonald Road	Gas main abandonment works continue – Finish moved to 28 September 2009 due to technical problems with the existing infrastructure. Water works on Leith Walk delayed due to pressure decay problem. Additional works required by Scottish water – (30 Additional service connections) - Finish date moved to 14 October 2009.
Section 1c McDonald Road to Princes Street West	Worksites at the Playhouse theatre has suffered delay due to underground structure, however design has been ratified and issued to Carillion. Work is in progress Worksite at York Place is predominantly on the South side of the Carriageway, through to North St Andrews Street Planned traffic management switch from Phase 2 York Place to Phase 7 is planned for the 19th September 2009 The Cellar removal works at the Conan Doyle Pub Have been ratified and works are ongoing at this time with a forecast 5 week duration, Revised SW commissioning sequence requested by SW which will impact on programme.

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Section 1d Princes Street West to Haymarket	CUS forecast for completion 29th November 2009 for Haymarket to Manor Place.  Traffic Management Phase 4 installed ahead of Phase 3.5 to mitigate delays from BT overrun on manhole rebuild in Palmerston Place, Additional Traffic Management required at Grosvenor Street to accommodate structure crossing and SGN works. This will be intrusive due to location of structure.  Gas Service Transfer and Abandonment programme to be integrated with current SGN works to allow for earlier completion of gas abandonment works.  West Maitland Street cellars causing problems with service connections for gas and water. Solution identified.  BT and Coms cabling works to commence on completion of CUS works. Current programme from BT shows 8 week duration.
Section 2 Haymarket to Roseburn Junction	As- Built drawings have been delivered to tie (08/09/2009) these will be reviewed by APM prior to being issued to INFRACO.  BT & C&W cabling complete.  Thus – 1 connection outstanding to Verity house. Termination in Verity house cannot be found.
Section 5a Roseburn Junction to Balgreen Road	MUDFA Diversions COMPLETE. Utilities transferred to infraco remain in Scotrail Depot
Section 5b Balgreen Road to Edinburgh Park Central	Sewer diversion at South Gyle Access bridge transferred to InfracoTelecoms proximity to South Gyle Access bridge West abutment & Bankhead Drive RW
Section 5c Edinburgh Park Central to Gogarburn	Utility diversion works complete. Telecoms re-cabling works underway.
Section 6 Gogar Depot	COMPLETE
Section 7a Gogarburn to Edinburgh Airport	Removed from CUS scope. Transferred: Being delivered by Farrans.

# 2.5 Tramworks (INFRACO)

The project continues to experience problems with slow progress for INFRACO works and, in particular, the appointment of direct BSC resource and the final appointment of the main package contractors. The BSC sub-contractors continue to operate with Limited Letters of Intent whilst awaiting conclusion of the full sub-contracts. Slow provision of estimates and finalisation of the agreement of change - Base Date Design Information (BDDI) to IFC is delaying the commencement of works at various locations including at Haymarket viaduct, Russell Road bridge, Murrayfield pitches Retaining Wall, Baird Drive Retaining Wall, Carricknowe bridge, Depot building and Tower Place bridge, although in the period tie has issued instructions in relation to 2 structures in the DRP process to get work started. These are Carrick Knowe where BSC have not mobilised and Russell Road Retaining Wall 4.

The work has continued on a number of worksites including:

# Section 1C/1D: City Centre Princes Street:

- In both the east and west sections of the site work has continued with track formation preparation, track slab construction, track laying and slab construction; central reserve works; carriageway formation preparation, sub-base and base course works and kerbing and footpath works. Work has now also commenced at both Lothian Road junction and at the foot of the Mound;
- A programme is being developed to ensure that both bus shelters and trackers can be installed and operational before the end of November;
- Princes Street is 64 % complete and due for handback to CEC by 28<sup>th</sup> November.

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#### Section 5B Balgreen Road to Edinburgh Park Central:

- At the guided bus way section piling works started and 1/3<sup>rd</sup> of section now available to start Track works. Track works to commence early Period 7;
- Edinburgh Park Station Bridge: BSC continued to work on diaphragm construction, deck slab and cope – 74% complete.

# Section 5C Edinburgh Park Central to Gogarburn:

 A8 underpass combined phase 1 & 2 is on hold. Further work required to quantify scope of work required by Scottish Power to confirm status of existing cables. Construction methodology has been agreed with Telecoms companies for a recommencement in period 07.

# Section 6 Gogar Depot

- Depot Access Road and Depot Building Foundations started on 31<sup>st</sup> August 2009; 76 out of 263 pours completed;
- Depot Building Steelwork due to start late September 2009.

#### Section 7 Gogarburn to Edinburgh Airport

- Gogarburn Bridge replacement piers and capping beam have been constructed.
   Bridge Decking works started. 64% complete;
- Gogar Culvert No.1 recommenced during Period 06;
- Gogar Culvert No.3 recommenced during Period 06.

Progress is being monitored against the Revision 1 programme. The summary milestones against the agreed INFRACO contract and the short term Rev 1 programme milestones are shown in the table below.

Milestones	Period 06		Cumulative (S	Contract	
	Planned	Actual	Planned	Actual	Planned to P06
Prelims	2	2	53	53	53
Construction	5	4	46	45	621

The Revision 1 programme incorporates the agreed 38 business days (seven weeks plus three days) EOT variation to the contract programme as in the table below. As had been the case in the contract programme progress, the common denominator in the Revision 1 programme remains that every activity in the programmes has a work content generated against it which translates into a weighting, allowing accurate reporting of progress.

	Period		Delta	Cumi	ulative	Delta
INFRACO PERIOD 06 PROGRESS (Contract Rev.01 Programme)	Plan	Actual		Plan	Actual	
Section 1a Newhaven to Foot of the Walk	5.1%	0.0%	-5.1%	31.4%	0.0%	-31.4%
Section 1b Foot of the Walk to McDonald Road	1.9%	0.0%	-1.9%	45.8%	1.5%	-30.8%
Section 1c McDonald Road to Princes Street West	1.3%	0.0%	-1.3%	13.5%	0.0%	-13.5%
Section 1d Princes Street West to Haymarket	1.1%	7.3%	6.2%	57.7%	19.0%	-38.7%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	2.8%	1.6%	-1.2%	35.2%	4.4%	-30.8%
Section 2 Haymarket to Roseburn Junction	4.4%	0.0%	-4.4%	77.5%	12.6%	-64.9%
Section 5a Roseburn Junction to Balgreen Road	3.6%	0.0%	-3.6%	73.5%	3.5%	-70.0%
Section 5b Balgreen Road to Edinburgh Park Central	0.5%	4.0%	3.5%	84.1%	17.6%	-70.4%
Section 5c Edinburgh Park Central to Gogarburn	4.4%	0.0%	-4.4%	70.1%	2.8%	-66.5%
Section 6 Gogar Depot	1.9	0.03%	-1.87%	86.4%	5.7%	-80.7%
Section 7a Gogarburn to Edinburgh Airport	5.0%	4.9%	-0.1%	55.8%	20.6%	-35.2%
Combined Sections 2A-5A-5B-5C-6A-7A (Off- Street) Haymarket to Edinburgh Airport	2.6%	1.9%	-0.7%	76.9%	10.9%	-66.0%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	2.7%	1.8%	-0.9%	60.4%	8.3%	-52.1%

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Section	Commentary
Section 1a Newhaven to Foot of the Walk	Section 1A4 Lindsay Road under review. Design awaited to allow Utility diversions to be carried out for W1 Lindsay Rd RW which releases Infraco works in this section. Temp. Utility diversions at bridges complete. Infraco Bridges works start date depending on BDDI – IFC agreement.
Section 1b Foot of the Walk to McDonald Road	Roadworks due to commence post Leith embargo delayed awaiting MUDFA completion. Now likely to start Jan 10.
Section 1c McDonald Road to Princes Street West	Roadworks due to commence post Leith embargo delayed awaiting MUDFA completion. Section of Princes St between the Mound and Waverley bridge progressing.
Section 1d Princes Street West to Haymarket	Princes Street works re-started 23Mar09 and continue between South Charlotte Street and the Mound. Section between South Charlotte St and Lothian Rd commenced week 4 of Period 05. Tram Works in Haymarket are dependent on MUDFA completion in Dec.09.
Section 2 Haymarket to Roseburn Junction	Haymarket Viaduct temporary works design resolved although contractor has not yet mobilised following Christmas 2008 break. Verity House access rd complete 23rd May. All required consents in place for track installation. Commercial issues holding-up commencement of works.
Section 5a Roseburn Junction to Balgreen Road	Temporary & permanent works re-design along with commercial resolution delaying various structures.  All required consents in place for track installation.
Section 5b Balgreen Road to Edinburgh Park Central	Temporary & permanent works re-design along with commercial resolution delaying various structures. Only progress in period is against \$27 Edinburgh Park viaduct which is now 74% complete.  All required consents in place for track installation. Carricknows Bridge re start on Period 7.
Section 5c Edinburgh Park Central to Gogarburn	A8 Underpass recommenced during P13 but has since been on hold due to discovery of obstructions & refusal of piles. Design solution to combine Phases 1 & 2 now in place. Traffic diversion completed. Delayed awaiting BSC to resolve construction methodology issues with telecoms companies.
Section 6 Gogar Depot	Access road commenced .Building Foundations commenced
Section 7a Gogarburn to Edinburgh Airport	Gogarburn underbridge 64% complete. S30 Culvert No.1 and S34 Culvert No.3 change issues resolved and recommenced Period 6.

Issue:

#### 2.6 Tram construction (Tramco)

Good progress continues to be made with the progress of deliverables against the schedule. Fabrication has commenced on the body shell for the 10th tram. Internal fit out and wiring continues for Trams 2 & 3 and the first tram has started Factory Acceptance Tests. A contingency is being investigated for storage and testing should the first trams be complete before the depot is ready to receive them.

The CAF contract programme is incorporated in the Master Tram Project Programme and the current position indicates the following confirmed milestone dates:

- 1<sup>st</sup> Tram delivery 09-Apr-10 5<sup>th</sup> Tram delivery 10-May-10 27<sup>th</sup> Tram delivery 17-Jan-11

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# 2.7 Preparing for Operations

tie has launched a new workstream know as 'Preparing for Operations'. This is a joint initiative with TEL and is focussed on getting ready for the Testing & Commissioning phases as well as the operational introduction of trams. Closely related to this, tie has recently notified Transdev of its intent to exercise its option to conclude the existing contractual arrangements as allowed for in the DPOFA contract. Discussions about an ongoing relationship are underway.

The process for acceptance of the Edinburgh Tram Project is designed to ensure that it is delivered in an acceptably safe, compliant and efficient manner. The objectives of the process are to ensure that the system performance, integrity, reliability, availability and safety are rigorously tested and that throughout all stages of the delivery process the many sub-systems and the overall system are validated and verified against the requirements and applicable standards. The detailed sequence and scope of testing and commissioning prior to systems Acceptance testing is to be programmed out and proposed by BSC in further detail in the next year.

To achieve these objectives there is a layered approach to the overall testing and commissioning as laid out in the table below.

What	Who	Status
Design	BSC (SDS) / tie	Underway.
assurance		
Quality	INFRACO	11 of the 37 BSC Inspections and Test Plans have been revised by BSC incorporating <b>tie</b> comments. <b>tie</b> hase requested an update of the status of the remaining ITP's.
Systems Safety	INFRACO / Independent Competent Person(ICP) / TEL / Transdev	Started - Safety verification plan in place and process of verification already underway. The ICP has been appointed and has started his verification process.
Performance*	INFRACO / Transdev / TEL	Requirements set out in the employer's requirements and will be tested following completion of each section of the network.

BSC have produced Inspection and Test Plans (ITP's) for the current set of construction works, however they have not yet produced a consolidated Test and Commissioning Plan. Constituent elements are available from CAF, the tram manufacturer, the Operator and an overall framework from TEL exists to cover the activities.

It is intended over the next three periods to obtain collective engagement on testing and commissioning, and agreement to the formation of a multi-organisation, multi-disciplinary test coordination team.

Testing undertaken and witnessed in the period has included the A8 piles at Gogar and the first tram set of body shells, (weld quality, dimensional tolerances and water tightness).

\*Pre-system acceptance testing includes both Factory Acceptance Tests(FATs), site Acceptance Tests (SATs), Sub-system integration tests (SITs) and System commissioning Tests(SCTs). Once a section of the network is physically completed and the SITs are satisfactorily completed then the formal acceptance process requires BSC to carry out and pass a series of systems Acceptance Tests in order to achieve Sectional Completion. These are shown in the table below.

Test	Test Name	Test Description	Programme
T1	Post	To demonstrate that each Section	Post Commissioning Test

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	Commissioning Test	of the ETN in sequence is able to perform in an acceptably safe	immediately follows successful commissioning
	1631	manner and deliver the required run	of each section and is
		times. This is the gateway test to driver training.	required for progressing to Driver Training.
T2	Performance Test 1	After Phase 1a is complete and has passed Test T1, this test demonstrates that Phase 1a is able to perform satisfactorily before starting the three-month Shadow Running period. This is the gateway test to shadow running.	Performance Test 1 will immediately precede the Shadow Running period and is a requirement for progressing to this phase of the programme.
T3	Pre-operations Test	The test covers a seven day period during the latter part of the Shadow Running phase of the programme using the initial 6/12 tph service timetable.	Pre-operations Test shall immediately precede the Service Commencement Date.
T4	Network Performance Test	The Test is carried out over a 28 day period in Passenger Service to establish that the ETN can reliably operate.	To be completed within twelve months of the Service Commencement Date.
T5	Network Reliability Test	Reliability Testing of key subsystems in Passenger Service.	To be completed within twelve months of the Service Commencement Date.

This whole process can be described by the following flowchart.

Stage	Epw Chart	Tests	D+== tonon
8	Passenger Service	Network Performance (T4) and Reliability Test (T5)	The date upon which the Edinburgh Tram Network starts in public service
	Î		PASSENGER SERVICE COMMENCEMENT
7	Shadow Running	Pre-Operations Test (T3)	The period of Tram operations that simulates full public service operation including running to published time table and calling / welling at Tramstops before the ETN enters public service
		Performance Test 1 (T2)	ENERGISATION OF COMPLETED PHASE OF THE ETN
6	Test Running & Driver Familiarisation		The period post-ETN commissioning used to complete driver and control room staff training and gain confidence to enter Shadow Running Phase
	1	Post-Commissioning Test (T1)	
5	Commissioning	System Integration Test	All subsystems, including the tram, are fully-integrated to form the ETN and are tested to demonstrate that they work together successfully and meet the Employer's Requirements
			ENERGISATION OF SECTION OF THE ETN
4	Set to Work Tests	Srte Tests	The point at which subsystems have been installed and then tested to prove they meet their requirements with both Type tests and Site Acceptance tests
			LIMITED ENERGISATION OF PART OF THE ETN
3	Installation / Construction		Once the subsystem has successfully passed Factory Acceptance Tests installation / construction at site will take place and as appropriate a delivery test undertaken.
2	Factory Acceptance Tests	FAT	Thorough demonstrable testing of the subsystem at Infraco's premises
	Î.		
1	Build / Manufacture		Manufacture and assembly of the System by the Infraco
	1		
D	Design		The scope of the works designed through Approval in Principle and Approved for Construction & Manufacturing Drawings; with associated verification and validation test and integration plans complete

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# 2.8 Interface with other projects

The following table identifies the other projects ongoing within the city which may impact on the Tram project. This is reviewed on an ongoing basis both internally and in conjunction with TS to identify conflicts and mitigations. The most significant interface of concern is the Gogar interchange. **tie** has instructed the design change and this is underway. The St James centre re-development remains as amber as commencement of this project is now indicated towards the completion of the Tramworks and therefore interfaces should diminish.

External Projects	Promoter	Project Description	Potential Conflict					
	icipated but being monitor programme concern / unkr		Tram Cor Dates	ntract	Project Dates			
				Start	Finish	Start	Finish	Comments
New Hotel adjacent Ocean Terminal	Ocean Points Development Limited	New build hotel	Potential conflict with Infraco dependent on timescales. To be monitored.	Sep-09	Apr-12	ТВА	ТВА	To be monitored.
Former Bus & Tram Depot nr Shrub Place	Fraser & Neave	Transformation of former Tram and Bus Depot into 121 room serviced apartments.	None identified. Dependent on timescales.	Now		ТВА	ТВА	To be monitored. Utility completion by end Aug09. Potential TM interface dependent on Infraco proposals
Shrubhill House	Unite	Transformation of former council social work headquarters into 200 bed hotel	None identified. Dependent on timescales.	Now		ТВА	ТВА	Awaits planning consent. To be monitored. Utility completion by end Aug09. Potential TM interface dependent on Infraco proposals
Baxter Place	Fitzpatrick Hotel	Conversion of existing building	Proposal to divert existing utilities	NOW		IDA	IDA	ргорозаіз
Development	Group	adjacent Greenside Lane and with frontage onto Leith Street	through basement of building. Also potential TM interface issues with Picardy Place construction.	Oct-09	Oct-11	ТВА	Dec-10	
St.James Centre Redevelopment	CEC / Henderson Global	Redevelopment of existing shopping centre.	Interface with Picardy Place junction re-construction and Cathedral Lane sub-station	Mar-10	Jan-12	2011	2016	Downgraded from red to amber as commencement of this project is now indicated towards the completion of Tramworks and therefore interfaces should diminish.

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National Portrait Gallery		Major building construction and refurbishment. The renovation of the external facades including the renovation of the external masonry, the overhauling of the existing windows, the renewal of the existing rooflights and roof covering, the renovation of the existing rainwater pipes and the moving some of the existing window bars to the inside. Additionally, it is proposed that an external ramp is formed to the front main entrance to allow disabled access.	Interface with Infraco works on St Andrew Street / York Place	Mar-10	Oct-11	Oct-09	Nov-11	Decant complete June 09 Lane closures (west bound) on Queen street, to allow space for a large hiab to be positioned full time outside the premises (October 2009 onwards). Also two, three week periods in January & February 2010, when further closures were required to allow a large crane in to remove/reinstate the roof. Conflict with the Tram traffic management team looking at making the section of Queen Street, between North St David Street and Broughton Street one-way (part of the Leith Street, Princes Street, South St David Street, North St David Street
St.Andrew Square Development	CEC	Demolition of existing buildings bordering South Side St.Andrew Square, South St David Street and Meuse Lane	Infraco Programme	Jan-10	Mar-10	ТВА	ТВА	gyratory).  Infraco activities will not commence until Jan 2010
Waverley Steps	Transport Scotland	Refurbishment of existing Waverley Steps with inclusion of new escalators and elavators	PRINCES STREET Traffic management issues when Infraco in Princes Street should this project require deliveries, craneage or Traffic management in same time period	Feb-09	Nov-09	Jun-10	May-12	Under the revised Waverley Steps programme received 7/5/9 Tramworks will be complete in this area prior to Waverley Steps works progressing. Downgraded from Amber to green May09. PLI (Public Liability Inquiry) held and refreshed

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								programme due in Period 6
Waverley Steps	Transport Scotland	Refurbishment of existing Waverley Steps with inclusion of new escalators and elavators	ST.ANDREW STREET Traffic management issues when Infraco in Princes Street should this project require deliveries, craneage or Traffic management in same time period	Jan-10	Mar-10	Jun-10	May-12	Under the revised Waverley Steps programme received 7/5/9 Tramworks will be complete in this area prior to Waverley Steps works progressing. Downgraded from Amber to green May09. PLI (Public Liability Inquiry) held and refreshed programme due in Period 6
Waverley Station Re- roofing	Transport Scotland	New roof and general upgrade to station interior	May be Traffic Management issues	Jan-10	Mar-10	Apr-10	Apr-14	Although the tram main construction works will be complete by end Mar-10 this area will be re-visited in Q4 2010 for OHL installation.
NATO Conference		date of the conference is Friday 13th November 2009 to Tuesday 17th November 2009 (inclusive) and it will be held at the EICC, Morrison Street, Edinburgh. 600+ delegates expected	Potential Interface with Infraco works at Haymarket junction	Jan-10	Nov-10	13- Nov-09	17-Nov- 09	Haymarket junction re- construction is 6 phases although not now expected to commence until Jan.2010
Princes Street Hotel	Deramore Property Group	Redevelopment of existing buildings at 121 - 123 Princes Street to 80,000 square feet 3 floor of retail and 100 bedroom hotel	Direct clash with Infraco programmed works in Princes Street during blockade	Mar-09	Nov-09	Early 2009	Jun-11	Infraco works progressing with no Interface problems

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Princes Street Property	asediqbal consulting	Site clearance and redevelopment at 125a Princes Street on all 3 floors to convert to an EasyHotel	Access through BSC worksite. Internal strip-down ongoing and access required for debris removal.	Feb-09	Nov-09	ТВА	ТВА	Infraco works progressing with no Interface problems
New Hotel in Haymarket	Tiger Developments	New build hotel	Utility diversions continue until Jul.2009 Potential Interface with Infraco works at Haymarket junction commencing Jul.2009	Jan-10	Sep-11	ТВА	2012	Haymarket junction re- construction is 6 phases although not now expected to commence until Jan.2010. Meeting held with Tiger Developments, Capita Simmons (Project Managers), Dunne Construction (enabling contractor) and CEC on Friday 22nd August 08. Outcome is that risk is greatly diminished.
Haymarket Interchange	First Scotrail	Capacity Increase Project - Installation of new lifts and walkways from Haymarket Terrace	Utility diversions continue until late June 2009 Potential Interface with Infraco works at Haymarket junction commencing July 2009	Jan-10	Sep-11	Dec-11	Dec-12	NR/Edinburgh Tram Project Delivery Group Meeting 11 Buchanan House, Edinburgh 08 April 2009 ScotRail are required under their franchise to install lifts due to the uncertainty over the integrated scheme at Haymarket. ScotRail will progress but it will be at the end of their Franchise 2011/12.

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Haymarket Station Re- furbishment	Network Rail/Scotrail	Main Building refurbishment works	Any external works could conflict with TM for either or both MUDFA and Infraco and could conflict with Infraco construction works. Bridge to be installed from Haymarket terrace to Platform 0 to comply with DDA	Jan-10	Sep-11	Aug-09	Jan-10	May Gurney programme recived during Aug09. No conflicts expected. TM requirements being monitored. Remaining utility works are to the east of the station/haymarket junction. Infraco works not expected to commence until Jan 2010.
Haymarket Station	First Scotrail	Installation of new lifts and walkways from Haymarket Terrace	Construction of Haymarket viaduct	Jan-10	Sep-11	Jan-10	ТВА	
Haymarket Terrace	DTZ Surveyors	Common Repairs to buildings at 2-4-6-8-68 & 74 Haymarket Terrace	Scaffolding and external repairs	Jan-10	May- 11	<b>M</b> ay- 09	ASAP	Scaffold erected and building repairs underway between Infraco TM phases.
Airdrie - Bathgate	Transport Scotland	New track installation	Tram possessions mainly "piggy- backed" on A2B possessions which could be altered / cancelled.	ТВА	ТВА	Mar-09	Mar-10	Various possessions and RotR workings
RBS Tramstop - Gogarburn	RBS	Design by RBS - Build by Infraco	Design and consents not in place in a timely manner to allow Infraco to build to programme	Nov-10	Mar-11	ТВА	ТВА	Design and approvals progressing to programme. Confirmed that this will now be a generic tram stop design
Gogar Surface Station	Transport Scotland	New station to east of Gogar Dapot	Approvate and Contents	Aug-08	Ott-11	Oct-09	Mar-11	SDS Revised design information (v48) received early Period 6. Gogar Interchange Programme to be updated and re-issued.

#### Colour code

Green	No conflict anticipated but being monitored
Amber	Managing any conflict
tion.	Conflict which causes programme concern / unknown effect on tram programme

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This has been sent to TS for their input for projects they are sponsoring and will continue to be reviewed by **tie** to identify any potential impacts on the Tram programme as early as possible in order to manage them. A review of the TS projects was carried out mid August 2009 with TS. A further session will be arranged during Period 07.

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# 2.9 Other

# Gogar Surface Station

At the end of Period 6 **tie** the baselined design phase is 15% complete compared with 19% planned. The cost of work done is £130k compared with £170k planned. The forecast outturn remains unaffected.

The impact of Gogar Interchange on **tie**'s Authorised Undertaker role for EARL needs to be regularised to ensure that any potential conflict of interest is addressed. This is being pursued directly with Transport Scotland.

#### Programme & Milestones

Activity	Baseline Planned	Latest forecast
Complete prelim design of additional tram stop	10/8/09	18/9/09
Submit Structures Technical Approval application	19/11/09	8/1/10
Submit Prior Approval application	26/11/09	15/1/10
Receive Prior Approval	5/2/10	12/3/10
Receive Structures Technical Approval	5/2/10	8/3/10
IFC	26/2/10	22/3/10

**tie** is currently forecasting that there will be 24 calendar days slippage to the IFC drawings for the tram elements of the Gogar Interchange. There are opportunities to improve on the existing design programme. **tie** is investigating these in Period 7 with BSC & SDS.

#### Progress on specific activities

Following confirmation of Network Rail's preferred scheme at the end of Period 5, and the subsequent construction meeting held with TS, CEC, NR and tie, work has progressed in earnest on several aspects of the design. In particular:

- sighting study has been completed and has been issued;
- SDS topographical survey has been completed and has been issued;
- work has been started on design of the canopy over the roof of the tramstop meetings have taken place between SDS's architect and the manufacturer of the EFTE material recommended by Mott MacDonald;
- work has started on the design of the Northern Retaining Wall and the completion of the topo survey will allow this to progress;
- revised landscaping plan has been received by SDS from Mott MacDonald.

SDS has confirmed that there is now no major item of information holding up design. SDS is awaiting results of the Mott MacDonald topo survey but these are helpful rather than essential at this stage.

#### Integrated Programme Development

**tie** will update its programme for Gogar Interchange by 22/9 to incorporate the updated Infraco design programme. This programme will then be adjusted together with TS & NR to produce an agreed integrated programme for the Gogar Interchange.

# Overall design co-ordination

Project management meetings have continued between **tie**, TS and NR and a further design workshop took place on 19 August. Network Rail is arranging a further workshop for Period 7 as well as regular contact between designers.

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#### Cost reporting

Mott MacDonald has provided revised plans and sections and **tie** will produce an update of the budget cost for discussion with Transport Scotland in Period 7 in line with provision of revised estimates by Network Rail. This reflects the slower progress made by SDS as the optioneering exercise was being completed.

# Temporary traffic regulation orders (TTROs)

- Weekly visual summary being produced of all tram traffic management throughout the city.
- No major traffic switches implemented in the period.
- Traffic management planning ongoing for Princes St Phase 3, Haymarket and Picardy Place.
- It is looking increasingly likely that buses will be returning to Princes Street at the end of November – this will be confirmed by CEC on 29 September 2009. Traffic Management plans for this major traffic switch are currently under development.

#### Traffic regulation orders (TROs)

- A TRO programme is in place to ensure that the first order TRO 1, which will allow for operation of the tram system, envisages the order being made in July 2010.
- The informal consultation process for this has been completed and BSC have incorporated minor design revisions into the final design. tie received a set of TRO drawings on 19 August 2009.
- Following TPB and pending CEC approval on 22 September, it is expected that the statutory consultation process to commence in early October 2009.

# Network Rail

- INFRACO has now delivered its EMC Management Plan and EMC Strategy for NR infrastructure assets and established the scope for the immunisation works. A programme for these works is being developed with INFRACO for the Immunisation solution part. Now they have sent it for tender to Volker Rail and Atkins Rail. They are expecting a response during Period 07. They should include the programme of those works for the immunisation solution for NR infrastructure.
- INFRACO will be developing the full assurance case for NR acceptance. Preliminary assurance
  case to enable traction power testing and commissioning has been completed. Further assurance
  will be provided up to, and including, bringing into service;
- The contractor has submitted for ROTR possessions according to the look-ahead programme.

#### Third party interfaces

- NR the Bridge Agreements are not yet concluded. There is an outstanding issue on indemnities to close out. CEC are taking this matter up directly with TS. The Operating Agreement draft with NR is currently on hold pending resolution of the same indemnities issue that is concerning CEC with the Bridge Agreement. Both matters are with CEC for resolution.
- Forth Ports Forth Ports have introduced a new clause into the Agreement drafting which seeks to link payment for the Tram works with the Planning Approval for the Leith Harbour Development, this is unacceptable to CEC and the matter has been raised for resolution at a senior level.
- Haymarket car park compensation tie have agreed compensation with NR. tie continue to discuss with TS the additional compensation payable to First ScotRail, as a result of the extension of the FSR franchise from Nov 2011 to Nov 2014. It is believed that this should have been allowed for in the franchise extension discussions between TS and FSR. tie plan to take the matter up directly with TS;
- Building fixings the process of lodging court submissions has commenced with 9 applications lodged in the period. The building fixing programme will commence in Spring 2010
- Interfaces are being managed to ensure that the SRU accommodation works and events are cohesive. tie have now agreed approach to the design and construction of the works with SRU.
- Network rail and CEC have signed a side agreement which addresses the concerns tie had over possible conflicts with tram construction works. As a result tie have withdrawn their objection to the TAWS Order.

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# BAA - Burnside Road (BAA) Raynesway Construction.

- Works commenced on 10<sup>th</sup> August 09 and are currently on programme.
- Enabling works at the Balfour Beatty Compound are complete.
- Utility diversion on programme, including the HV diversion completed early. Piling works commenced on 3<sup>rd</sup> September 09 however access problems, partly resulting from the heavy rain, and mechanical problems have delayed progress. The design of the piles and the abutments was changed due to the final bridge design, requiring additional piles and tie-beams. The Contractor is assessing the impact on the programme, however, this is not anticipated to affect the Completion Date.
- The Coach Park and taxi rank barriers and the pay station were successfully relocated but with 1 week delay to allow re-assessment of the control system following difficulties during the cabling works. This has not affected the Critical Path. The East End Service Yard barrier installation has been postponed to w/c 14<sup>th</sup> September 09. This is currently a non-critical activity and is linked to the CCTV camera relocation.
- Generally planned Completion Date is maintained for January 2010.

# Section 7B Utilities

- MUD works The MUD contractor (Farrans) continues on site
- The installation of the gas main is now 95% complete requiring tie-ins at both ends.
- The multi-utility trench is 75% installed and backfilled.
- The foul main relay under the walkway is complete.
- Approximately 100m of the foul main remains to be laid at the south end of the multi-track at a different invert to the gas main. We have been unable to locate the existing foul main in this area and have prepared a plan for extending the diversion to the existing pumping station approximately 25m away across Burnside Road.
- Jointing of BAA HV cables completed as planned.
- Planned Completion Date of 2<sup>nd</sup> October 09 is at risk due to the impact of the original Kier relay and lower productivity than planned.

# Hilton Car Park & Phase 1

INFRACO - No works have commenced. Reviewable Tram Works Design (RTWD) Issued. BAA response received. Formal DRP started.

# Section 1 Utilities

Invitation to Tender documents (ITT) sent to 5 companies (Farrans, Morrisons, Raynesway, Clancy Docwra and UUPLC). Tenders returned on 11-Sept-09.

# Fast link modifications (Front Line)

- Works completed.
- BT manhole is to be built after the Scottish Power cable has been diverted

## Murrayfield Pitches (Souters)

Final accounts now agreed. Subject to works being carried out during maintenance and establishment period.

#### Archaeological works at Constitution Street (Frontline):

- The archaeological works have now recovered in excess of 280 skeletons and this figure will rise beyond the 300 mark prior to the end of the works.
- Reinstatement of the next area approximately 20 metres long commenced
- Because of the large number of skeletons found and potential post excavation works the budget for this work is under threat. This is being reviewed and will be reported in future reports once the scale of post excavation works including carbon dating, reporting and re-internment is scoped.

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# 3 Headline cost report

# 3.1 Current financial year

	FY 09/10 COWD Period			FY 09/10			FY09/10 COWD Full Year Forecast			COMD	Costs To Go	Total AFC
				COWD Year To Date		To Date						
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance	Actual	Forecast	Forecast
Total Project COWD	7.197	13.280	6.083	47.807	54.158	6.350	119.728	150.072	-30.343	278.827	248.272	527.099
Other Funding	0.594	1.097	-0.502	3.947	4.472	-0.524	9.886	12.391	-2.505	23.022	17.993	41.015
Demand on TS	6.603	12.184	-5.581	43.860	49.686	-5.826	109.842	137.680	-27.838	255.805	230.279	486.084

- The lack of an agreed commercial programme and the decision to apply formal contractual measures to resolve outstanding issues with the BSC consortium will present potential further risks in relation to the attribution of additional costs and delay to completion of the project. **tie** Ltd has taken extensive legal and technical advice, including Counsel's opinion, and is confident of its position on the key matters in dispute. However, given the nature of the process and the complexity of certain issues, it is unreasonable to expect that all adjudication outcomes will be awarded in favour of **tie** Ltd and it will also be open to the BSC consortium to use the contract formally to pursue their objectives.
- We continue in this report to reflect an outturn estimate of £527.1m. However, given the commercial uncertainties with the Infraco and continuing delays to the project it is now considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m. Until the key issues are resolved through the contractual and legal process, it will not be possible to forecast accurately a revised budget outturn. It is also not possible at the present time to predict the conclusions of reviews of contingency programme delivery options, including possible additional sources of funding.
- The contract with the BSC consortium prescribes a timetable for resolution of contractual disputes and it is expected that the budget and programme implications will become increasingly clearer during the remainder of 2009.
- Regular briefings will be provided to both CEC and Transport Scotland to keep them updated on progress and implications for the project programme and finances of all the above matters.
- The budget for Phase 1a in 2009/10 is £150.1m which has been produced linking the tie rebaselined programme to Infraco construction milestones. tie are now escalating all key issues to Dispute Resolution Procedure (DRP) and other contractual measures following the failure of mediation to provide and acceptable outcome. It is anticipated that a fully agreed programme will not be made available and/ or agreed by the Infraco contractor until key commercial issues have been resolved.
- In order to ensure that key works are progressed tie have instructed the Infraco to begin works at Carrick Knowe and Russell Road via clause 80/15 letters. A rate of progress letter (clause 61) has also been raised for Gogar.
- The outturn figure for 2009/10 of £119.7m has been fully re-assessed in period 6 in-line with tie's latest internal view of programme coupled with Project Managers informed view of Infraco deliverables in 2009/10. The reduction in forecast this month is in-line with the high-side sensitivity flagged in the period 5 TS report. Note: key assumptions to the £119.7m reforecast are detailed in the Executive Summary Section of this report.
- In addition to the forecast phase 1a (£119.7m) 2009/10 costs, the budget also includes costs of £3.2m which relate to the postponement of Phase 1b Infraco construction contract. A payment of £3.2m was made to the Infraco Contractor in August relating to phase 1b costs.
- Funding available from TS for the project in 2009/10 is £149m. The TS share of this year's updated forecast (£122.9m) is £112.8m, giving available headroom of £36.2m.

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Actual YTD P6 & forecast P7-P13 FY09/10

£m	YTD	Forecast	Total FY09/10
	P6	P7 - P13,09/10	
Infrastructure and vehicles	32.0	52.9	84.9
Utilities diversions	7.5	0.8	8.3
Design	1.2	1.3	2.5
Land and compensation	0.7	0.9	1.6
Resources and insurance	6.4	8.5	15.0
Base costs	47.8	64.4	112.2
Risk allowance	-0.0	7.5	7.5
Total Phase 1a	47.8	71.9	119.7

- Phase 1a COWD to Period 6 is £47.8m (Period 5 is £40.3m) against budget £54.2m. The main drivers for the -£6.4m variance are: the timing of Infraco works costs forecast in 2009/10 offset by MUDFA costs incurred over the original plan.
- Tramco production activity is running two months ahead of schedule; this is reflected in the Tramco construction works forecast profile. It should be noted that the Tramco forecast has been amended with the release of the advanced payment now being smoothed periodically rather than quarterly to avoid 'spikes' in the cash application.
- As previously reported and agreed with CEC and TS, initial milestones under the Infraco and Tramco contracts in the aggregate amount of £24.2m, in respect of advance material purchases, have been classified as prepayments. These will be reclassified as expenditure against funding in the periods when the related materials are delivered to site and incorporated in the works. The release will occur on the achievement of trackwork and structures milestones in 2009/10 and future years.

#### 3.2 Current financial year profile

Profile for FY09/10 - Phase 1a only

£m	Q1	Q2	Q3	Q4	Total FY09/10
	(p1-3)	(p4-6)	(p7-10)	(p11-13)	
Infrastructure and vehicles	15.8	16.2	31.7	21.2	84.9
Utilities diversions	3.2	4.3	2.1	-1.3	8.3
Design	0.7	0.4	0.7	0.6	2.5
Land and compensation	0.6	0.1	0.8	0.0	1.6
Resources and insurance	2.9	3.5	5.0	3.6	15.0
Base costs	23.2	24.6	40.3	24.2	112.2
Risk allowance	0.0	-0.0	4.4	3.1	7.5
Total Phase 1a	23.2	24.6	44.6	27.3	119.7

- A full reforecast of the Infraco 2009/10 cost profile was produced in period 6 in lieu of tie receiving any updated agreed programme from the Infraco contractor. The 2009/10 reforecast has been informed by linking the latest tie programme to Infraco constructions milestones and taking Project Managers best view of what is likely to be achieved in the year. The realigned base costs and risk have then been linked against this programme; and
- The latest forecast for 2009/10 shows base cost of £112.2m and risk £7.5m, giving a total phase 1a cost of £119.7m. Outturn has been reduced by (-£30.4m) from period 5 to period 6, with movements arising mainly as a result of the re-assessment of Infraco construction milestone achievement.
- The cost profile above shows a ramp-up in activity throughout 2009/10, with base costs increasing from £23.2m in Q1 to a peak of £40.3m in Q3. This reflects the anticipated shift in Infraco milestone activity from Q1 to Q3.
- Note: Utilities diversions -£1.3m forecast in Q4 relates to final betterment elements forecast against utilities providers.

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## 3.3 Total project anticipated forecast cost

Re-baselined Phase 1a AFC and profiling

£m	Cum	Actual	FY	FY	FY	AFC
	FY07/08	08/09	09/10	10/11	11/12	
Infrastructure and vehicles	30.7	45.4	84.9	102.6	34.3	297.8
Utilities diversions	18.4	33.4	8.3	0.0	0.0	60.1
Design	21.4	4.7	2.5	1.1	0.1	29.8
Land and compensation	16.8	1.7	1.6	0.1	0.8	21.0
Resources and insurance	42.7	15.8	15.0	10.6	9.8	93.8
Base costs	130.0	101.0	112.2	114.3	44.9	502.5
Risk Allowance	0.0	0.0	7.5	9.6	7.5	24.6
Total Phase 1a	130.0	101.0	119.7	123.9	52.5	527.1
Phase 1b postponement	3.0	0.0	3.2	0.0	0.0	6.2
Total Phase 1a and Phase 1b	133.1	101.0	122.9	123.9	52.5	533.3

- The table above reflects the base costs and risks aligned to the **tie** re-baselined programme (Feb-12), and is informed by the re-alignment of the Infraco milestones schedule for 2009/10 inline with the latest live programme and Project Management assessment of deliverables. The AFC for Phase 1a above includes an <u>unapproved</u> increase of £15.1m to the project risk allowance. The <u>approved</u> cost estimate for delivery of Phase1a of the project remains at £512m. The phasing of the £527.1m has been updated in period 6 by **tie**, and will be further updated when there is an updated agreed programme with the Infraco contractor.
- The latest forecast view includes £3.2m of costs relating to Phase 1b which crystallised as contractually payable to BSC due to the postponement of Phase 1b (this will require to be covered by current funding). Coupled with the re-baselined forecast, there is £11.7m of funding headroom within the £545m total funding available.

## 4 Time schedule report

## 4.1 Report against key milestones

In advance of developing agreement with BSC, tie has developed an <u>unapproved</u> recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. A completely unmitigated programme <u>as a control scenario only has also been produced</u> which shows a date of 17 Oct 2012. However, the live programme has been used to generate the milestone data below and this is based on all current information fed into the master programme. This indicates an open for revenue service date of late October 2012.

(The agreed baseline programme reference for this project is that at Financial Close leading to revenue service in July 2011.)

Milestones	Baseline programme date	Actual / current forecast date live
Approval of DFBC by CEC	21 Dec 06A	21 Dec 06A
MUDFA – commencement of utility diversions	02 Apr 07A	02 Apr 07A
TRO process commences	14Dec07A	10-Dec-07A
Approval of FBC by TS – approval and funding for INFRACO / Tramco	09 Jan 08	Dec 07A
Princes Street closed	03-Feb-09	22-Feb-09A
Tramco / INFRACO – award following CEC / TS approval and cooling off period and SDS novation.	28 Jan 08	14 May 08A
Construction commences	14-Apr-08	14-May-08A
First track installation commences – on street	03-Nov-08	Jun 2009A
Carrick Knowe Bridge commences	21-Aug-08	19-Aug-08A
A8 underpass commences	08-Aug-08	28-Aug-08A
Haymarket viaduct commences	08-May-08	01-Sep-08A
Edinburgh Park viaduct commences	06-Aug-08	01-Sep-08A
Tram mock-up delivered	Oct 2008	Nov 2008A
Demolition of Wanderers clubhouse	25-Aug-08	28-Sep-09
Edinburgh Park viaduct complete	24-May-09	12-Dec-09
Princes Street re-opened	01-Aug-09	25-Nov-09
NR immunisation complete	Nov 2009	Dec 2009
Utilities works complete	Nov 2008	Dec 2009
All demolition work complete	22-Aug-08	04-Mar-10
All Issue for Construction (IFC) drawings delivered (inc Gogar interchange design)	21-Jan-09	22-Mar-10
Haymarket viaduct complete	08-Dec-08	19-Apr-10
All consents and approvals granted	18-May-09	Mar-10
Design assurance complete	20-Jan-09	Mar-10
1 <sup>st</sup> Tram delivered	09-Apr-10	09-Apr-10
Carrick Knowe bridge complete	11-May-09	24-May-10
A8 underpass complete	14-Jul-09	15-Jun-10
Roseburn viaduct commences	20-Jan-09	06-Aug-10
TRO process complete	01-Dec-09	Jun-10
Driver recruitment commences	July 2010	Oct-10
1 <sup>st</sup> OHL installed (Commence Section 6)	11-Dec-09	Dec-10
1 <sup>st</sup> section (other than depot) complete ready for energisation (2)	25-June-10	Mar-11
Commission Section 2 (Haymarket to Roseburn junction)	11-Jan-10	Mar-11
Final tram delivered	17-Jan-11	17-Jan-11
Driver training commences (depot only)	Dec-10	Jan-11

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Commission Section 6 (depot)	25-Mar-10	Jun-11
Roseburn viaduct complete	20-Apr-10	Jul-11
Test track complete	23-Apr-10	Oct-11
Commission Section 7 (Gogar to Edinburgh Airport)	25-June-10	Oct-11
Commission Section 1 (Newhaven to Haymarket)	11-Mar-11	May-12
Commission Section 5 (Roseburn junction to Gogar)	09-Nov-10	Apr-12
Driver training commences (excludes depot)	Nov 2010	May-12
System testing complete off street	09-Dec-10	May-12
Construction Line 1a complete	17-Jan-11	May-12
System testing complete on street	16-Feb-11	Jun-12
Letter of "no objection" from Independent Competent Person	17-Apr-11	Jun-12
to commence tram running		
Shadow running starts	18-Apr-11	Jul-12
Shadow running complete	July 2011	Oct-12
Letter of "no objection" from Independent Competent Person	July 2011	Oct-12
to commence revenue service		
Open for revenue service	July 2011	Oct-12

<u>Guidance for Completion:</u> Legend for colouring of Actual / forecast date text

 Green:
 Actual / forecast date is ahead or in line with baseline

 Yellow:
 Slight slippage – readily recoverable with action.

 Pink
 Significant slippage but expect recovery can be achieved

 Red:
 Notable / significant slippage – difficult to recover, even with action.

## 4.2 Key issues affecting schedule

Programme is one of the priorities of the PMP and a refresh of the key issues affecting schedule will be provided in future periods following engagement with BSC.

## 4.3 12-week look-ahead

Milestones	Actual / current forecast date
6 Depot Access Roads - Track & Stabling	17-Aug-09A
6 - Depot Building Foundations	01-Sep-09A
7 Gogar Culvert No.3	15-Sep-09A
7 Gogar Culvert No.1	21-Sep-09S
5B Trackworks Bankhead to Edinburgh Park Stn	21-Sep-09S
7 Gogarburn bridge beams	25-Aug-09A
1B Complete Utility diversions Foot of the Walk to Balfour Street	25-Sep-09F
5A Demolition of Wanderers Clubhouse	28-Sep-09S
5A Construct New Scotrail Carpark	28-Sep-09S
6 - Depot Building Steelwork	05-Oct-09S
1A3 Commence Temporary Platforms and Demolition Tower Place bridge	05-Oct-09S
7 Complete Utility diversions Ingliston Park and Ride to Airport	09-Oct-09F
2A S19 Haymarket viaduct re-commences	16-Oct-09S
1D Complete Road and Track works Lothian Rd junction	22-Oct-09F
5B Trackworks Balgreen Rd Saughton Road North	26-Oct-09S
5B Trackworks Saughton Rd to Bankhead (Guided Busway)	26-Oct-09S

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5B Trackworks Edinburgh Park Stn to Edinburgh Park Central	26-Oct-09S
1B Complete Utility diversions Balfour Street to McDonald Road	30-Oct-09F
2A Track works Haymarket to Roseburn Junction	30-Oct-09S
5A W3/W4 Russell Road retaining walls	02-Nov-09S
5B South Gyle Access bridge sub-structure	09-Nov-09S
5A S20 Russell Road bridge	20-Nov-09S
1C Complete Road & track installation on Princes Street*	25-Nov-09F
1D Complete Utility diversions Haymarket to Shandwick Place	23-Dec-09F
1C1 Complete Utility diversions McDonald Road to Picardy Place	21-Jan-10F
1C2 Complete Utility diversions Picardy Place to St Andrew Sq	08-Mar-10F

A = Actual date

S = Forecast Start Date

F = Forecast Finish date

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## 5 Risk and opportunity

## 5.1 Review of risk register

#### Summary

There were twelve risk reviews held in the period. Two items were close on the Infraco concerns register and 7 items added. There were sixteen risk draw downs approved in the period totaling £731,675. These are detailed later in this report. This leaves a risk and contingency balance of £8,780,397 (based upon the approved Project Risk Allowance at Financial Close).

#### Risk and Opportunity Reviews

The following reviews took place in the period:

Date	Format of review	Attendees	Comments
20/8/09	Review of Project Risk Allowance (QRA)	Project Risk Manager Infraco Director Infraco Construction Directors (x2) Infraco Commercial Mgr	Review of current risks within QRA and their allowance. Identification of new risks.
25/8/09	Change and Risk Review	Project Risk Manager Infraco QS Infraco Commercial Mgr	Review of current and proposed changes against risk allowance
2/9/09	Programme impact review on Infraco Concerns Register	Project Risk Manager Programme Manager	Review of programme impacts
7/9/09	Structures Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed
7/9/09	Roads and Drainage Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed
7/9/09	Signalling, Communication and Control (SCC) Risk Review	Project Risk Manager SCC Project Risk Manager	Risks and Treatment Plans Reviewed
7/9/09	Depot Risk Review	Project Risk Manager Project Risk Manager	Risks and Treatment Plans Reviewed
7/9/09	Network Rail	Project Risk Manager Project Risk Manager	Risks and Treatment Plans Reviewed
8/9/09	Mudfa Risk Review	Project Risk Manager Mudfa Construction Director	Risks and Treatment Plans Reviewed
8/9/09	High-level Infraco Risk Review	Project Risk Manager Infraco Director	Risks and Treatment Plans Reviewed
8/8/09	Princes Street Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed
9/9/09	Section 1A Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed

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#### Risk Register

The Primary Risk Register is attached at Appendix D. The Primary Risk Register contains those high impact risks which are impacting (or have the potential to impact) the project at this moment in time. In addition, the potential risks identified in regard to programme slippage are being reviewed periodically and will form part of the updated QRA. There are 43 risks in the risk register. The top five project risks are listed on the following pages.

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## Top 5 Risks - Period 6 2009/10

#### **Risk Description**

	RIS	Description								
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance Black	lag Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
343	General delay to programme with various causes e.g. failure	Delayte completion of project	Increased out-turn cost due to delay plus	S Bell	TORSE OF	DRP on programme management (EOT1)	Undefined	Undefined	30-Jul-09	S Bell
	to obtain approvals on time; parliamentary processes, contractor issues.		revenue loss			Liasen between tie/BSC programme managers	On Pr∙gramme	On Programme	30-Dec-11	T Hickman
						Programme Management Panel process	On Pr∙gramme	On Programme	30-Dec 11	F McFadden
						Weekly tie/BSC commercial meetings	On Programme	On Programme	30-Dec-11	M Patersen
<b>1</b> 1077	Base Date Design Information to Issued For Constructions (BDDI-IFC). Lack of visibility of design changes between November 2007 and May 2008	·	pr∙gramme delay	S Bell		Establish a precess which will act as a contrel mechanism for design changes (If one exists already then ensure process is complied with)	Complete	Complete	30-Jun-09	T Glazebr <b>ee</b> k
						Intensive Mediation Marathon 29/6/09 to 6/7/09 to try and resolve issues.	Complete	Complete	30-Jun-09	S Bell
						Mediation resulted in no overall agreement on BDDI - IFC although it gave useful background information. Strategy paper to be presented to TPB on 29 July to seek approval for way forward including utilising necessary contract mechanisms (DRP, audit etc)	Complete	Complete	14-Aug-09	S Bell
						Resolution Strategy approved - 1st DRP to go 10th August, audit requests to BSC for information going w/c 3 8 09	Complete	Complete	10 Aug-09	S Bell
						Sixissues going through DRP process. Anticipated conclusion mid-November 09	N/A	On Programme	13-Nev-09	S Bell

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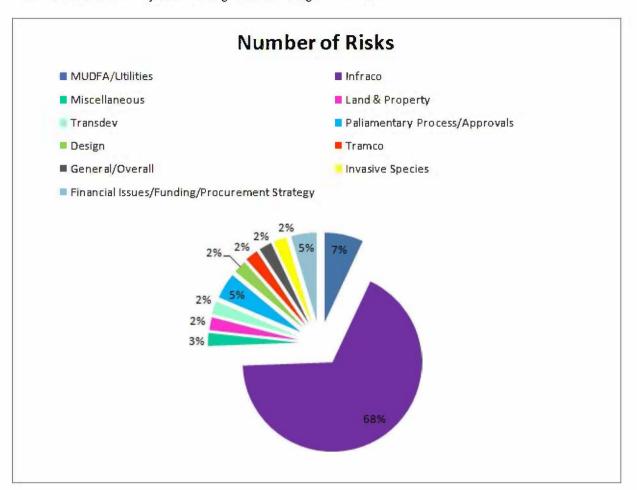
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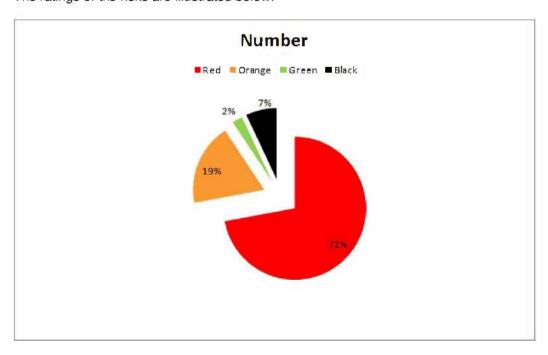
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1090	Initial costs for Burnside Road works higher than anticipated	Cost of works at Burnside Road exceed that allowed in project budget.	Additional Cost	F McFadden	Cests being reviewed and tender decuments sent out April 09.	C●mplete	Complete	3 0 Jun-09	F McFadden
					Tender docs issued based on scheme design information. Pre- tender estimate produced and final design ongoing. Delivery of tenders final outcome can be predicted	C∙mplete	Complete	30 Jul-09	F McFadden
1091		Excavation of soft,	Additional cest	F McFadden	D●naldsons to carry out surveys	C●mplete	Complete	30 Jul-09	C Neil
		Earthworks outline			Extent of soft ground being investigated. External specialist advice depleyed.	On Pr <b>•</b> gramme		31-Dec-09	M Paterson
<b>1</b> 101	Unreasonable behaviour of BSC commercial management	Unrealistic estimates being submitted for	Pregramme delay while disputes regarding	F McFadden	Additional resource from TNT	C∙mplete	Complete	30 <mark>Jul-0</mark> 9	M Patersen
	commercial management	potential changes	estimates are resolved		Agreed with BSC for independant evalutation to get benchmark	C●mplete	Complete	3 0 Jul-09	M Paters•n
					All estimates to be scrutinised by tie commercial team and, where appropriate, challenge made to BSC. Additional resource (T&T) being used to check estimates to reduce delay.	On Programme		30-Dec-10	M Paters●n
1094		Roads throughout works require full depth reconstruction	Programme impact plus additional costs. £1.5m cap applies to only 4 areas.	F McFadden	Carry out surveys to confirm extent of reads requiring full depth recenstruction	Cemplete	Complete	30-Jun-09	C Neil
					Suite of options from surveys to be reviewed and agreement reached	On Pr•gramme		31-Oct-09	M Paters●n

The risks within the Project Risk Register are categorised below.



The ratings of the risks are illustrated below.



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#### New risks and concerns

The Project Risk Manager, in conjunction with the relevant director, agrees which concerns are escalated to risks and are added to the Project Risk Register.

## Infraco

The following items were closed in the Infraco Concerns Register in the period.

Ueer	State department							
	Risk Cause	DIM Town	Effect					
6	Number							
Section 1D	54 Utilities works are not complete on Princes Street	Clash between Tramworks and Utilities	Delay to programme, extension of time claim. Additional cost					
Depot	69 Section 21 agreement required with SW as depot is being built over existing sewer	Delay in obtaining section 21 agreement with SW	Delay to programme, extension of time claim. Additional costs.					

The following items were added to the Infraco Concerns Register in the period.

Discipline		Risk description						
1100	Risk Cause Number	Risk Event	en o					
Section 5A	108	Presence of Japanese Knetweed behind the Viking preventing progress of Russell Rd retaining wall W4 contamination (oil plume) also problematic.						
Section 5	109	Presence of Giant Hogweed to be treated prior to progressing tramworks at Edinburgh Pk Central	Additional cost and delay					
Section 5C	110	Presence of live THUS and Easynet services adjace south half of retaining wall	ent to Additional cost and delay					
Section 1A	111	Delay to completion of utility diversions causes dela Infraco works	ay to Additional cost and delay					
Section 1A	112	Agreement with Forth Ports not yet in place with kni effect to Infraco works	nock-on Additional cost and delay					
Section 1A	113 Forth Ports and CEC unable to agree on of Road 8.	planning and layout Planning permission for Ocean Terminal/Tram Plaza Road 8 not yet in place	a and Additional cost and delay; Lost opportunity for TM while tramworks take place on Ocean Drive					
Section 1A	114 Road not delivered to adoptable standard	CEC refuse to adopt road.	Dealy to operation of tram					

The risks relating to Section 1A will be subject to further review in the form of a risk workshop to be held in Period 7.

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#### 5.2 Risk action plan for next three periods

The following treatment plans are due for completion in the next three periods.

								Next 3
Action Owner 🔻	Risk ID 🔻	Action ID	Action Name	Due 🔻	Active 🔽	Complete -	Late	periods
			In conjunction with MUDFA, undertake trial excavations to					
			confirm locations of utilities and inform designer.					
			All complete but section 1A1 and York Place to Picardy Place					
A Hill	164	42	outstanding.	30/10/2009	Yes	No	No	Period 8
			In conjunction with MUDFA, undertake trial excavations to					
			confirm locations of utilities and inform designer.					
			All complete but section 1A1 and York Place to Picardy Place					
A Hill	139	42	outstanding.	30/10/2009	Yes	No	No	Period 8
C <b>K</b> err	932	362	tie/TSS to undertake assurance review as necessary	30/10/2009	Yes	No	No	Period 8
			Engagement between tie and BSC at different levels.					
			Regular review of BSC management of third parties as per					
C Neil	1078	647	Employers Requirements.	31/10/2009	Yes	No	No	Period 8
D Burns	869	644	Length of Line 1a to be re-surveyed on regular basis	30/10/2009	Yes	No	No	Period 8
D Sharp	44	467	Fortnightly meetings of Approvals Task Force	30/10/2009	Yes	No	No	Period 8
D Sharp	279	634	Fortnightly meetings of Approvals Task Force	30/10/2009	Yes	No	No	Period 8
D Sharp	271	559	Assure the quality and timing of submissions	31/10/2009	Yes	No	No	Period 8
D Sharp	271	637	Fortnightly meetings of Approvals Task Force	31/10/2009	Yes	No	No	Period 8
			SDS to obtain consent for design in accordance with					
			programme requirements - SGN and Scottish Power.					
F McFadden	914	557	Complete with the exception of section 1A1	31/10/2009	Yes	No	No	Period 8
			SDS to obtain consent for design in accordance with					
			programme requirements - Scottish Water and all Telecoms.					
F McFadden	914	573	Complete with the exception of section 1A1	31/10/2009	Yes	No	No	Period 8
			Assess TM implications to minimise enabling works and		T T			
G Barclay	1084	654	additional cost	31/10/2009	Yes	No	No	Period 8
			Liase with Scottish Power to agree and approve method of					
W Biggins	911	628	crossing tunnel	30/09/2009	Yes	No	No	Period 7
			Suite of options from surveys to be reviewed and agreement					
M Paterson	1094	673	reached	31/10/2009	Yes	No	No	Period 8
			TRO					
r cl. l	077	500	TRO strategy approved by board, discussion to be held with	24 /40 /2000	v			D 1.10
S Clark	977		CEC head of transport to reduce risk of legal challenge.	31/10/2009		No	No	Period 8
T Glazebrook	932	365	Undertake regular liaison during Immunisation Works	30/10/2009	Yes	No	No	Period 8
			design development (attend progress meetings with NR					
	led.		contractor)					

### 5.3 Cost Quantative Risk Analysis

The Project Risk Allowance at financial close was £30,336,196. The Project Risk Allocation has reduced by £731,675 in the period. Total drawdowns to the end of Period 6 09/10 now total £21,555,799. Remaining risk balance based on the approved QRA is £8,780,397.

All existing risks, as well as those recently added, are being reviewed to ensure the QRA output is as accurate as is reasonably possible. It is accepted that the additional risks and increase in QRA output are currently <u>unapproved</u>. These are within the <u>unapproved</u> range in costs provided to TS on 26<sup>th</sup> May. **tie** will continue to report on the risk allocation at Financial Close until a new budget (with an updated QRA) is approved.

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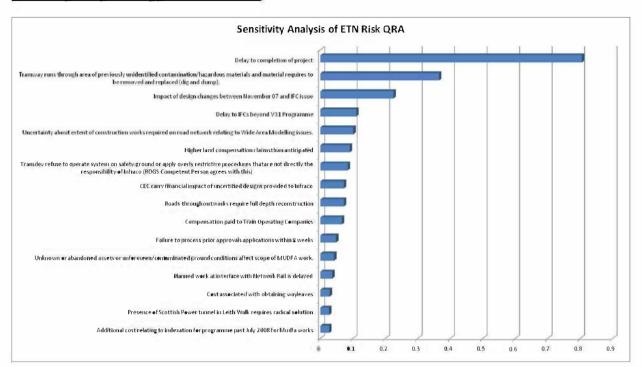
## Risk drawdown

The following table includes the approved drawdown applications on the project risk allocation in Period 6.

Description	Owner	Value (£)
Stage 1 Design Change - Balfour Street Crossing	Mike Paterson	8,796
Gogar Castle Tree Felling	Mike Paterson	1,162
Soil Investigation, Contaminated Material at Haymarket Depot	Mike Paterson	54,987
Replace MASS Barrier at St Andrews Square	Mike Paterson	22,897
Gogarburn Culverts S20,S31 and S34	Mike Paterson	13,368
Section 7 Additional West Embankment Starter Layer	Mike Paterson	36,616
Section 6 Depot Secondary Steelwork	Mike Paterson	2,356
Increase in Gross Amount of Change orders issued	Mike Paterson	341,179
Haymarket Internal retaining wall	Mike Paterson	14,208
Stage 1 Design Change - Water of Leith Bridge Sewer / Foundation Conflict	Mike Paterson	32,068
Stage 1 Design Change - Section 1D Haymarket Taxi Stance	Mike Paterson	26,215
Stage 1 Design Change - Design changes to Airport Kiosk	Mike Paterson	13,175
Stage 1 Design Change - Gyle Stop Cycleway widening	Mike Paterson	11,700
Stage 1 Design Change - NIL further future proofing	Mike Paterson	95,563
Stage 1 Design Change - Design of Canopy and boundary treatment at Airport Kiosk	Mike Paterson	49,982
Stage 1 Design Change - Existing Batter to North of Gogar Depot Drainage	Mike Paterson	7,403
	Total	£731,675

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#### Sensitivity analysis of approved cost QRA.



The above chart highlights those component risks which are correlated most closely with the overall risk allocation. These risks are the ones which, if changed in terms of probability or impact, would have the most significant effect on the final output.

## 5.4 Schedule QRA

**tie** is currently working with the supplier of Active Risk Manager (ARM – the risk management software which **tie** uses) with a view to integrating Primavera and ARM so that a schedule risk analysis can be developed. A schedule QRA will be created following agreement of the recalibrated programme.

## 6 Health, safety, quality and environment

#### 6.1 H&S accidents and incidents, near misses, other or initiatives

HS&E ACCIDENTS	HS&E ACCIDENTS and INCIDENTS SUMMARY												
Total Total Hours >3 day Major Injury NM/Unsafe Service Damage ENV RTA MOP AFR SFR													
Period	124,881	0	0	1	15	9	0	0	1	0.00	7.21		
13 period rolling	1,592,205	1	3	30	225	178	3	16	58	0.25	11.18		



There have been no reportable accidents during Period 6. The 13 period AFR is 0.25 compared to the target, 0.24 accidents per 100,000hrs worked. There has been a decrease in the overall service strike frequency for the project, however, a number of water services have been struck by BSC. A new 'record of service damage' form is being used to help identify areas of causation.

Directors Safety tours and Project Manager inspections have achieved 100% of those planned, however, a concerted effort is still having to be made to carry out joint inspections with the contractor. Further CoCP inspections have been carried out by **tie**, details of which are contained in Appendix B. Joint **tie** / BSC inspections have identified the main issues on BSC sites as — Provision of PPE, Housekeeping and Planning and Management. These issues have been addressed directly on site and are being monitored.

There have been a number of joint excavation inspections carried out by **tie** and CUS. Remedial actions required and implemented at 9 out of 17 excavations assessed. Premature removal of trench support in advance of reinstatement operations contributed to the negative findings. Learning points acted on by CUS management.

Works at Edinburgh Airport with Farrans and Raynesway have not been progressing as well as could be expected. A number of incidents including service strikes, fences being blown over and near misses involving plant have occurred. **tie** Infraco Director has met with Farrans Director to discuss and resolve issues.

MUDFA as-builts and utility handover process is progressing (estimated 10% complete) but remains a cause for concern (against site work estimated 97% complete).

An Operative twisted his ankle on site and this resulted in the operative being absent from work. The operative returned to work Friday 11<sup>th</sup> September.

#### 6.1 Environment

The report from BSC on the environmental fuel spill at the Farrans site at Gogar Burn was finally received. It will now be reviewed by **tie**. BSC have intimated that SEPA have notified them that there will be no enforcement action taken. This is yet to be substantiated.

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No environmental incidents have occurred during Period 6

#### 6.2 Deliver a Safe Tram (Quality)

				Data Ch	ecked		
Section	Activity	Interdisciplinary Design Check	Hazards	Inspection and Test Plan System	Design Variation/Change	As Bults	Asset Register
Princes St	OLE Pad Foundations	g.	1	1	N/A	1	0.5
Guided Busway	OLE Pad Foundations	0.5	0.5	1	N/A	N/A	N/A
Princes St	Track works	0.5	1	1	0.5	1	0.5
Gogar Depot	Building Foundations	0.5	0.5	1	0.5	0.5	N/A
PD	Total (y)	1.5	3	4	1	2.5	1
	Max Possible Total (y)	4	4	4	2	3	2
Total to date	Percentage	25%	71%	88%	50%	80%	63%

Key - Y = Evidence exists (1) N = No evidence exists (0) NA = Not applicable (-) P = Part evidence in place (0.5)

Action taken from Period 5 – Deliver a safe tram metrics have been used in an area prior to construction starting. A Safety Verification Audit was carried out during Period 6 which highlighted 7 Findings, 3 of which were observations, 1 Major Finding and 3 Minor findings. The major finding was that no Systems Integration Plan was in place and there was no timescale for delivery of the plan, however, subsequent lower tier plans were in place. BSC did not deliver a presentation on Change Management to the PSCC however, presentations were delivered to the ICP on Tramstops.

Period 6 "Deliver a Safe Tram" inspection metrics were carried out on 4 activities across the project, 2 at Princes Street, 1 at the guided bus-way and 1 at the Depot.

Of the activities checked, an increased number show partial evidence of having gone through BSC's Inter-Disciplinary Check process, however, this was still only ad-hoc through CVI's and SDS internal IDC process as opposed the full BSC process. There is still an upward trend.

There are a number of hazards still open on the BSC project hazard log. A meeting between BSC, tie and Transdev is planned for the end of September to facilitate addressing the open hazards.

Inspection and Test Plans, the contractors' process for quality control during construction continues to appear to be to a good and acceptable standard.

Changes to design on site were backed up by technical queries from BSC to SDS, however there was no evidence to show if the change had been assessed for the need to go through the IDC process. This is still outstanding from previous inspections. A presentation from BSC was due to take place at September PSCC but did not, this has been rescheduled.

Evidence that as-built information was being recorded and stored in the appropriate way to facilitate future records and the Asset Register was provided during the inspections

#### Action to be taken

Further areas not yet under construction to be checked using metrics

A presentation from BSC to tie will be given in October regarding the BSC design change process.

Report from Safety Verification Audit held during period 6 to be completed and action from findings to be followed up

Schedule of forthcoming internal IDC workshops requested from BSC by tie.

Discuss mitigation action with tie Project Management for areas about to start construction

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## 7 Stakeholder and Communications

#### 7.1 Media / Press Activity

Media Coverage for Period 6 has been extensive as usual, with articles relating to the project appearing daily in various local newspapers and intermittently in national publications.

Positive news pieces included a story in The Herald with regard to a Carbon Emissions report by the Scottish Government. Coverage of the progress made on the Gogarburn bridge works and the Princes Street reinstatement also made for positive press for the project. A profile of our extensive archaeological works for the Edinburgh Trams website was conducted using Bit TV. John Lawson, Head of Archaeology CEC and two contractors, Headlands and GUARD, where interviewed as part of the profile.

Upcoming media stories for Period 7 include a profile on Women and Construction, a "Day in the Life of the Logistics team" piece along with a story highlighting the new Tramformer scheme for Primary Schools which promotes awareness of the project and safety around worksites. Another profile piece concerning Richard Jeffrey having reached 4 months on the project will be printed during the first week of Period 7.

#### 7.2 Customer Service Activity

Overall, correspondence from Period 6 has fallen by 99 contacts from Period 5. Each week logged under 100 contacts, with week 3 only recording 59 contacts.

Correspondence via email, phone calls and face to face meetings continue to remain the main formats for enquiry by the public. Contacts logged by phone call (141) and email (95) claimed the majority of the overall correspondence. Contacts logged via Face to Face meetings totalled 59 for Period 6, a drop of 50 contacts from Period 5 where correspondence reached 109. The remaining contacts for Period 6 consisted of 4 letters, while no contacts were received by TCA Report or Fax.

Information requests constitute the majority of all correspondence for Period 6, with 219 out of the total 299 contacts made regarding information on the project and its various components. This trend has not differed from previous Periods, however the total requests for information dropped by 106 from Period 5. Typical enquires included information on Gas Abandonment works on Leith Walk, parking suspensions, Haymarket works and timescales for various works sites across the route.

Period 6 Complaints (43) and COCP Complaints (14) have increased since Period 5 by 14 and 4 contacts. Weeks 1 and 3 especially logged high numbers of complaints with 10 and 17 being recorded by the Customer Service team. With 17 complaints during week 3, issues concerning alleged inconsistent information on notifications and lack of completion dates on signage at work sites. COCP complaints were logged concerning similar issues of signage not being accurate.

Employment and Logistics figures remained high throughout Period 6 compared to previous periods with 7 and 5 contacts being made. The remaining contacts were spread over the remaining categories with no emerging trends.

#### 7.3 Public Information Planning

Various pieces of signage have been produced for different areas and events. Open for Business signage was designed and produced for Frederick Street, Murrayfield and the Conan Doyle bar. Banners were also made for the Edinburgh Festival firework display.

Preliminary designs and illustrations for new Tram Information Boards are ongoing along with investigatory signage options for Leith Walk and Shrub Hill as part of Open for Business. The new tram film which was filmed in April has now been finished and the final copy completed.

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Continued liaison with local traders in the Princes Street area has brought about signage being cleared from the west end of Princes Street now that the main track works are progressing further towards the mid to east end.

Two new signs have been designed to be placed at the Princes Street junctions with Hanover Street and Fredrick Street advertising the businesses on these two streets. These signs will be installed in the next week. This was welcome by the retailers in these areas.

Notifications will go out next week regarding the change in traffic management at the Lothian Road junction which will take effect on the weekend of 2<sup>nd</sup> October 2009. Three notifications have also been issues for the Haymarket area during Period 6. Notifications were also delivered concerning the closure of Laurie Street, with a diversion route being put in place to assist traffic wishing to enter Constitution Street.

A strategy planning meeting has taken place in preparation for works on York Place and London road, while consultations with Broughton Community Council are to take place regarding works in the area. Regular meetings are also held with Parliamentary MSPs regarding the project and its progress.

#### 7.4 Website / Internet Communications

There were 13102 visits to the <u>www.edinburghtrams.com</u> website this period, with the number of followers on twitter rising to 222 against last period's 116. Facebook interaction and membership has also risen with 290 'fans' now following our facebook page as compared with last period's 183.

Video podcasts were introduced half-way through the period to <a href="www.edinburghtrams.com">www.edinburghtrams.com</a> and the Apple iTunes store. While it is not possible to track how many people subscribe for these updates via iTunes, 773 people accessed the podcast feed on our servers, indicating that at least this many people viewed the podcast online or downloaded it.

RSS feeds which actively push information to users were accessed 1430 times this period. For the first time on <a href="www.edinburghtrams.com">www.edinburghtrams.com</a>, "Local Updates" were pushed down to second place, with podcasts becoming our most popular RSS item. The community pages which house information on COCP feedback are also more popular this period than ever before with 27 users receiving RSS updates for this information.

Part of this shift in usage patterns is explained by the increasing popularity of our facebook and twitter pages. 551 people accessed the local updates page via links posted on these pages as opposed to 510 users viewing it by access from the parent site. Responses to social network posts are also remarkably swift.

Participation in online discussion forums on our facebook site has increased, with users now posting some of their own discussion threads about topics which are of interest to them. Feature items seem to be particularly popular, notably pieces done on our archaeological discoveries during utilities work and a regular photo feature explaining different construction practices.

To make best use of facebook, we need to actively develop content people wish to interact with. At present, photos and video are the most popular content on our site, while discussion boards are growing in popularity. 88 interactions with facebook users were logged to 14<sup>th</sup> September. Interactions are posted on each user's wall, encouraging their networks of friends and contacts to visit the Edinburgh Trams page.

## 7.5 Logistics

Period 6 Logistics figures again remain constant at roughly 340 inbound deliveries per week. Outbound deliveries however dropped significantly from the 70 recorded during Period 5. Between week 1 and week 2 during Period 6 Outbound deliveries dropped by 27, from 34 to 7 deliveries.

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Figures for boxes, cages and rails delivered as part of the inbound deliveries also dropped by around 400 each between week 1 and 2 also. Superdrug delivery point has been moved to Hanover Street due the street being cleared of difficulties.

#### 7.6 Partner and Stakeholder Communications

In the last month, Tramformer presentations have been conducted at 17 primary schools in Edinburgh. Recruitment is now under way, and 2 pupils are being selected from each participating school. Visits to sites will take place next month.

We have also been involved in running workshops in conjunction with Scottish Businesses for Communities. The pilot programme ran at Craigroyston High School this month, 8 workshops were run to a total of 80 Primary 7 pupils.

Edinburgh Trams was represented at the Scottish Transport Convention on the 15/09/09 with an information stand and employees on hand to discuss with attendees the progress of the project.

Presentations were given to the following during Period 6:

- Forty One Club
- Tadashi Ito Professor of Engineering from the University of Japan
- Leith Retired Workers Group

A representative from the project attended the Edinburgh Chambers of Commerce AGM Breakfast.

#### 7.7 Freedom of Information Requests

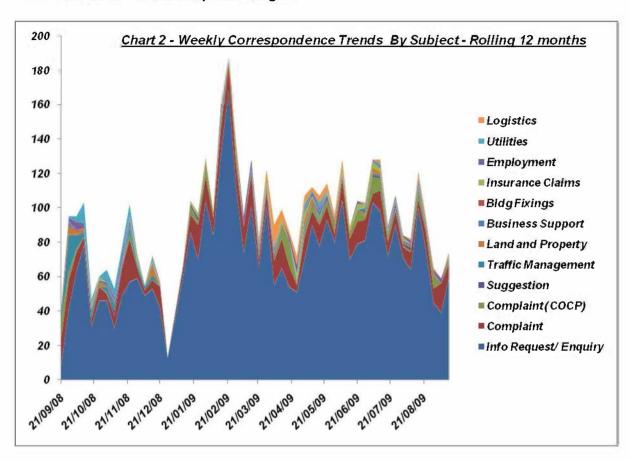
For Period 6, a total of 8 Freedom of Information requests have been dealt with. Of the 8 requests, 5 were completed, 2 are waiting to be signed off for completion while one request is still in progress. One request has also gone to the Information Commissioner for consideration.

#### 7.8 Winter Festival

A Marketing and PR working group has been set up comprising of professionals from City of Edinburgh Council, **tie**, DEMA, Winter Festivals and retailers in the City Centre. The group is continuing to meet to discuss the proposals for this year's Winter Festival and to insure the success of the festive celebrations.

A report on the Princes Street Christmas proposals will be considered at the next Policy and Strategy Committee on 29 September. This will consider the main options for managing Princes Street over the Winter Festivals period in light of discussions undertaken with city centre retailers, and to determine when buses, taxis and cycles will be returned to Princes Street following the completion of the tram construction works. An update will be provided in the next report.

## 7.9 Customer Service Graphs and Figures



#### a) Monthly Customer Service Report 17/08/2009 - 11/09/2009

ltem	Volume Month	Volume (Cumulative from 21/11/08)	Performance (Month)	Performance (Cumulative)	Target Performance
Telephone response	213	2699	98	97	90% in 30 seconds
Telephone Same day resolution	209	2613	98	97	Info only
Email acknowledgement	88	1381	100		100% acknowledged within 24 hours
Email response			100	99	90% resolution in 7 days
Email same day resolution	84	1254	96	91	Info only
Letter acknowledgement	4	88	100		100% acknowledgement within 24 hours
Letter response			100	94	100% resolution in 7 days
Total Enquiry	305	4168			

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Volumes						
			100	100	110	
Website update	63	795	100	100	Weekly	
Wood to appears	1 30					

b) Out of Standard/Work in Progress statement at month end 11 Sept. 2009

		Volume of WIP @ m/end	Oldest date	Oldest Issue	Handled By
	Email	0	N/A	N/A	N/A
M/e 11 Sept. 2009	Letters	1	25/11/08 (Out of standard)	TRO Process	Alasdair Sim
	Calls	0	N/A	N/A	N/A

## c) Monthly Notifications Performance 17/08/09 to 11/09/2009 and Cumulative from 21 November 2008

- 1 Major notifications for tram works (in standard)
- 7 Minor notification all for utility (all in standard)
- **0** Emergency notifications

Notification Type	Work Site		Utilities	Tram works	Total	% in Standard
	Month	Notifications	0	1	0	¥
Major works		In Standard	6	1	1	100
-	Cumulative	Notifications		5	11	
		In Standard	0	2	2	18
	Month Notification		7	0	7	
Minor Works		In Standard	7	2	9	100
	Cumulative	Notifications	50	25	75	
		In Standard	43	16	59	79
	Month	Notifications	0	0	0	
Emergency		In Standard	N/A	N/A	N/A	N/A
•	Cumulative	Notifications	14	0	14	
		In Standard	14	0	14	100

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Appendix 'A' Detailed cost report
Headline Financial Information Edinburgh Trams

FY 09/10 Period Nr: 6 £m FY 09/10: Demand on TS 109.842 1: HEADLINE FINANCIAL COMMENTARY PERIOD (PD) RESULTS:
Period is for Phase 1a only. See Section 3 of the TS report for further commentary.

YEAR TO DATE (YTD) RESULTS: YTDis for Phase 1a only. See Section 3 of the TS report for further commentary.

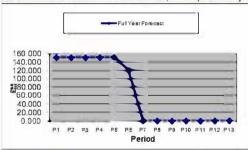
EULL YEAR FORECAST (FYF):
FY0910 is for Phase 1a only. See Section 3 of the TS reportfor further commentary.

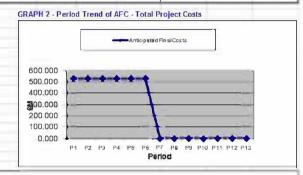
ANTICIPATED FINAL COST (AFC):

AFCIs for Phase 1a only and includes an unapproved increase of £15M to the Project Risk allowance. This excludes £6.2M of potential Phase 1b costs and is consistent with the update sent on 26th March 2009. See Section 3 of the TS report for further commentary.

2: SUMMARY												
		FY 09/10			FY 09/10			FY 09/10		COMD	Costs	Total
	C	OWD Perio	d	COM	D Year To I	Date	COMD	Full Year F	orecast	To Date	To Go	AFC
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance	Actual	Forecast	Forecast
Total Project C●WD	7.197	13.280	-6 083	47 807	54.158	-6 350	119.728	150.072	-30 343	278.827	248.272	527.099
Other Funding	0.594	1.097	-0.502	3.947	4.472	-0.524	9.886	12.391	2.505	23.022	17.993	41.015
Demand on TS	6.603	12.184	-5.581	43.860	49.686	-5.826	109.842	137.680	-27.838	255.805	230.279	486.084







3: RISK AND OPPORTUNITIES TO

FULL YEAR FORECAST:

See Section 3 of the TS report for further commentary.

ANTICIPATED FINAL COST:

ACC is for Phase 1a only and includes an unapproved increase of £15M to the Project Risk allowance. This excludes £6.2M of potential Phase 1b costs and is consistent with the update sent on 26th March 2009. See Section 3 of the TS report for further commentary.

#### 4: ACCRUALS COMMENTARY

5: TOTAL PROJECT ELEMENT SPEND BREAKDOWN (Total Project Costs)	E	stimated Co	st	Act	tual Cost/Fore	ecast	Variance
PLANNED/EMERGING/FORECAST	Tot	al Project C	osts	To	tal Project C	osts	
Allocated in accordance with standard WISS. Values relevant to		Escalated	Escalated	Cost Of	Forecast	Anticipated	AFC v
business case or other agreed baseline date to be known as original estimate	Original	Original	Latest	Work Done	to	Final	ELE
Relevant Baseline date : FBC 20/12/2007	Estimate	Estimate	Estimate	(COWD)	Completion	Costs (AFC)	
General Overall	28 233	28 233	30 159	25.331	4 828	30.159	0.00
Procurement Consultant	68.126	68.126	81.747	56.098	25.649	81.747	0.000
Design	23.683	23.683	29.813	27.343	2.470	29.813	0.000
Financial Issues/Funding/Procurement Strategy	2 258	2,258	2 630	2,453	0 177	2.630	0.000
Parliamentary Process/Approvals	0.329	0.329	0.319	0.319	0.000	0.319	0.000
Procurement Construction Works	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Construction Works	273.102	273.102	299.367	137.796	161.571	299.367	0.000
Testing & Commissioning	1.984	1.984	0.000	0.000	0.000	0.000	0.00
Handing Over & Service Operations	0.000	0.000	0.000	0.000	0.000	0.000	0.00
NeP/Rail Projects Interface (Promoters View)	0.000	0.000	0_000	0.000	0.000	0.000	0.000
Interfacing Developments	0 000	0.000	0 000	0 000	0.000	0.000	0_001
TRAMS, Vehicles (Edinburgh TRAMS Use Only)	51.370	51.370	58.470	29.487	28.983	58.470	0.000
Risk	48.974	48.974	24.594	-0 000	24.594	24.594	0.000
Opportunity (Negative Value)	0 000	0.000	0 000	0 000	0 000	0.000	0.000
OB/Contingency	0.000	0.000	0.000	0.000	0.000	0.000	0.00
Total —	498.060	498.060	527.099	278.827	248.272	527.099	0.000

#### Edinburgh Tram Project

**Delivery Organisation Period Progress Report** 

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Detailed Financial Information Edinburgh Trams FY 09/10 Period Nr: £m 6: Current Year 09/10 - Baseline Budget 1 Total Project COWD - Budget P10 14.032 11.068 Pf3 Total 14.585 150,072 7.157 P5 P6 P7 P8 12.698 13.280 13.581 16.036 10.814 12.897 4.633 2 Other Funding - Budget 0.460 0.383 0.893 ] 0.591 1.048 1 1.097 1.121 1.324 1.159 0.914 1.132 1.065 1.204 12.391 3 Demand on TS - Budget 6.566 11.649 12.184 12.459 14.712 12.873 10.154 12.582 11.832 5.115 4.251 9.921 13.381 | 137.680 7: Current Year 09/10 - Actuals (Updated 4 weekly)
4 Total Project COWD + Revised Forecast 9.823 7.197 7.300 9.127 6.057 8.043 7.560 8.474 13.713 12.385 10.051 6.074 13.924 119.728 7 Other Funding + Revised Forecast 0.754 0 500 ] 0 664 0.624 0 811 0 594 0.700 1.132 1 023 0.830 0 603 0 502 1.150 9.886 10 Total Demand on TS 7.774 12.581 11.363 8.373 6.936 6.603 9.221 6.698 5.572 12.774 109.842 5.557 7.379 9.012 8: Variance tracker
12 Variance Line 1 to Line 4 - Project Actual vs Budget
13 Variance Line 2 to Line 7 - Oth Funding Actual vs Budget
14 Variance Line 3 to Line 10 - Demand on TS vs Budget 0.136 Total Financial Commentary - FY 10/11 Onwards
123.899 All costs are for Phase 1 acris and includes an unapproved increase of £15M to the Project Risk allowance. This excludes £6.2M of potential Phase 1b costs and is consistent with the update sent on 5: Next Year 10/11 - Forecast (Updated 4 weekly) Q4 Total 27.162 123.899 18 Total Project COWD 21 Other Funding 3 774 2.901 2.104 2.113 10.892 26th March 2009. See section 3 of the TS report for further commentary. [ 30.113 ] 30.256 ] 27.589 ] 25.049 ] 113.006 ] 24 Total Demand on TS 10: All Years (Escalated) 26 Total Project COWD (Updated 4 weekly) FY0607 FY07/08 FY08/09 FY09/40 FY10/11 FY11/12 FY12/13 30.431 85.852 100.979 115.728 123.859 52.453 0.000 TOTAL 527.099 29 Other Funding 7 769 9.886 10.892 41.015 1 000 0 019 10.287 1 162 0 000 0 000 0.000 32 Total Demand on TS 0.000 3.093 9.664 30.412 75.565 93.210 109.842 113.006 51.291 -0.000 I 0.000 0.000 0.000 486.084 GRAPH 4 - Year To Date/ Costs To Go - % Complete - Current Year FY 09/10 GRAPH 3 - Demand on TS: Actual/Budget Run Rate - Current Year FY 09/10 16.000 Total Project COWD 14.000 47,807 71,921 12 000 10.000 **3.**000 Other 3,947 5.938 Funding 6.000 4 000 Demand on 65.982 43.860 2.000 TS 0 000 P1 P2 P3 P4 P5 P6 P7 P Period P8 P9 P10 P11 P12 P13 40% 60% % Complete 0% 20% 60% 80% 100% 11: Other Funding Other Funding
Budget (Current Year 09/10)
RAB Funding (if Applicable)
Other Funding Stream
Other Funding Stream
Other Funding Stream
Other Funding Stream
Other Funding Stream P1 P2 Р3 P4 P6 P7 P8 P9 P10 P11 P12 Total 0.000 0.460 0 383 0 893 0 591 1 048 1 097 1 324 1 159 0 914 1 132 1 065 1.204 12.391 0.460 0.383 0.893 0.591 1.048 1.097 1.324 1.159 0.914 1.13 1.065 1.204 1.121 12.391 Actual (Current Year 09/10) P1 P2 Р3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 Total RAB Funding (If Applicable) Other Funding Stream Other Funding Stream Other Funding Stream 0.754 0.50 Other Funding Stream
Total Actual Other Funding 0.754 0.500 0.664 0.624 0.811 0.594 1.132 0.502 1.150 9.886 12: Promoter Full Year Forecast Run Rate (Total Project Costs)
Period Trend of Full Year Forecast (Current Year 09/10) P13 P1 P2 P3 P4 P5 P6 150.084 150.084 150.084 150.084 150.084 119.728 13: Promoter AFC Run Rate (Total Project Costs) Period Trend of AFC Anticipated Final Cest P8 P9 P10 P11 P12 P13 P1 P2 P3 P4 P5 P6 527.099 527.099 527.099 527.099 527.099

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# Appendix 'B' Change control register

(Register and other information as volunteered or requested from delivery organisation / promoter – There are none to report on at this point)

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## Appendix 'C' Programme information

To be sent separately to TS by CD:

- Milestone Schedule Summary (progress against baseline)
- Full Detailed Time Schedule (progress against baseline)
- Critical Path
- 12 Week Look Ahead Extract from Schedule

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# Appendix 'D' Primary risk register

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			ETN Primar	y Risk Re	gister - Perio	d 6 200	9/10				
	Risk	Description									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance Bl	lack Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
343	General delay to programme with various causes e.g. failure	Delay to completion of project	Increased out-turn cest due to delay plus	S Bell			DRP on programme management (EOT1)	Undefined	Undefined	30-Jul-09	S Bell
	to obtain approvals on time; parliamentary processes, contractor issues.		revenue loss				Liasen between tie/BSC programme managers	On Pr•gramme	On Programme	30-Dec-11	T Hickman
							Programme Management Panel process	On Pr•gramme	On Programme	30-Dec 11	F McFadden
							Weekly tie/BSC commercial meetings	On Programme	On Programme	30-Dec-11	M Paters●n
1077	Base Date Design Information to Issued For Constructions (BDDI-IFC). Lack of visibility of design changes between November 2007 and May 2008	· · · · · · · · · · · · · · · · · · ·		S Bell			Establish a process which will act as a control mechanism for design changes (If one exists already then ensure process is complied with)	Complete	Complete	30-Jun-09	T Glazebr••
							Intensive Mediation Marathon 29/6/09 to 6/7/09 to try and resolve issues.	Complete	Complete	30-Jun-09	S Bell
							Mediation resulted in no overall agreement on BDDI - IFC although it gave useful background information.  Strategy paper to be presented to TPB on 29 July to seek approval for way forward including utilising necessary contract mechanisms (DRP, audit etc)	Complete	Complete	14-Aug-09	S Bell
							Resolution Strategy approved - 1st DRP to go 10th August, audit requests to BSC for information going w/c 3.8.09	Complete	Complete	10-Aug-09	S Bell
							Six issues going through DRP process. Anticipated conclusion mid-November 09	N/A	On Programme	13-Nev-09	S Bell

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Delivery Organisation Period Progress Report

			ETN Primar	y Risk Register -	Period 6 200	9/10				
	Risk	Description								
ARM Risk ID	Cause	Event	Effect	Risk Owner Significa	ice Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
1090	Initial costs for Burnside Road works higher than anticipated	Cost of works at Burnside Road exceed that allowed in project budget.	Additional Cost	F McFadden		Costs being reviewed and tender decurnents sent out April 09.	Complete	Complete	30 Jun-09	F McFadder
						Tender decs issued based en scheme design information. Pre- tender estimate produced and final design engoing. Delivery of tenders final outcome can be predicted.	Cemplete	C●mplete	30-Jul-09	F McFadder
1091		Excavation of soft,	Additional cost	F McFadden		Denaldsons te carry out surveys	Complete	Complete	30 Jul-09	C Neil
		Earthworks outline				Extent of soft ground being investigated. External specialist advice deployed.	On Pr•gramme	On e Programme	31-Dec-09	M Paters●n
1101	Unreasenable behaviour of BSC commercial management	Unrealistic estimates being submitted for	Pregramme delay while disputes regarding	F McFadden		Additional resource from TNT	Complete	C●mplete	30-Jul-09	M Paters•n
		petential changes	estimates are resolved			Agreed with BSC for independant evalutation to get benchmark	Complete	Complete	30 <mark>-Jul-</mark> 09	M Paters•n
						All estimates to be scrutinised by tie commercial team and, where apprepriate, challenge made to BSC. Additional resource (T&T) being used to check estimates to reduce delay.	On Pr●gramme	On e Programme	30-Dec-10	M Paters <b>•</b> n
1094		Reads throughout works require full depth recenstruction	Programme impact plus additional costs. £1.5m cap applies to only 4 areas.	F McFadden		Carry out surveys to confirm extent of roads requiring full depth reconstruction	Complete	Complete	30 Jun-09	C Neil
						Suite of options from surveys to be reviewed and agreement reached	On Pr•gramme	On Programme	31-Oct-09	M Paters <b>•</b> n

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			ETN Primar	y Risk Re	gister - Per	iod 6 200	9/10				
	Ris	k Description									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
14	SDS contractor does not deliver the required prior and technical approval consents in line with SDS V31	Delay to IFC drawings beyond V31 Programme	Delay to programme with additional	D Sharp	HER ESS		Evaluation of prior appreval programme	Complete	Complete	31-Oct-08	D Sharp
			resource costs and delay t● infraco. Impact upon risk				Fortnightly Meetings of Approvals Task Force	On Programme	On Programme	30-Oct 09	D Sharp
			balance.				Hold fortnightly Roads Design Group	Complete	Complete	31-Dec-07	T Glazebro
							Informal consultation prior to statutory consultation	Complete	Complete	31-Mar-09	T Glazebro
						Integrate CEC into tie organisation/accomodation (office move)	Complete	Complete	4-Jun-07	T Glazebro	
279		Third party consents including Network Rail consent are denied or	Delay to programme; Risk transfer response by bidders is to return	D Sharp	HU 2100		Additional EMC modelling to give better info to NR	Complete	Complete	31-Dec 07	C Kerr
		delayed	risk to tie; Increased out turn cost if transferred and also as a result of				CEC Planning - mock application by SDS	Complete	Complete	31-Dec-07	T Glazebro
			any delay due to inflation.				Draft depot and station change proposals to NR	Complete	Complete	31 Jan-08	A Sim
						Fortnightly meetings of Approvals Task Force	On Programme	On Programme	30-Oct 09	D Sharp	
							Identify fallback options	Complete	Complete	31 Aug-07	T Glazebro
							Monitoring and tracking through the 3rd party rep	Complete	Complete	30-Jun-09	D Sharp
							Monitoring of BBS - 12 week look ahead		On Programme	14-Jul-11	R Bell
							Obtain critical consents prior to	Complete	Complete	31-Jul-08	T Glazebro

financial close

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culture surveys to the contractors

workforce.

ETN Primary Risk Register - Period 6 2009/10 **Risk Description** ARM Risk ID Cause Event Effect Risk Owner Significance Black Flag Treatment Strategy Previous Due Action Current Date Status Status Owner 52 Political and/or Stakeholder Amendments to design Programme delay as a Sharp Close working relationship with On On 31-Jan-11 L Murphy result of rework; CEC and stakeholders Programme Programme objectives change or require scope from current design developments that baseline and functional Programme delay due constitute a change of scope; specification late receipt of change Planning Department requires requirements and lack Weekly critical issues meeting Complete Complete 31 Jul-08 T Glazebrook scope over and above baseline of resolution: scope in order to give approval Scope/cost creep (dealt (may be as a result of lack of with through change process); Project agreement over interpretation of planning legal requirements). ultimately could become unaffordable. 928 F McFadden All Site Staff to get CSCS or On On 30-Jan-11 C Major single safety incident Safety incident during Delay (potentially critical) due to HSE Programme Programme McLauchlan (including a dangerous construction equivalent investigation and occurrence) during construction rework. PR risk to tie Develop and Implement Incident Complete Complete 27-Apr-07 T Condie and stakeholders. Management Processes HSQE Audits, site inspections On 31-Dec-10 B Cummins On and Management Safety Tours Programme Programme to be carried out Safety Induction to be carried out On On 31-Dec-10 B Cummins for all site staff Programme Programme Site Supervisors to be appointed Complete Complete 28-Feb-07 S Clark bytie On 31-Dec 09 B Cummins The tie "Safety" bus is being On used to deliver safety talks & Programme Programme

## Edinburgh Tram Project

Delivery Organisation Period Progress Report

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			ETN Primar	ry Risk Re	gister - Per	iod 6 200	9/10				
	Rist	Description									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
931	Utilities assets uncovered during construction that were not previously accounted for;		Re-design and delay as investigation takes place and solution	C Neil	HIP COM		GPR surveys in areas where there are likey to be services	Complete	Complete	1-Apr 07	T Glazebroo
	unidentified abandoned utilities assets; known redudant utilities; unknown live utilities; unknown		implemented; Increase in Capex cost as a result of additional				Infraco trial holes where applicable	On Programme	On Programme	31-Jan-10	P Dobbin
	redundant utilities.		works.				MUDFA trial holes to verify GPR surveys	Complete	Complete	30 Jul-09	A Hill
							Obstructions and voids survey, establish ownership reduced delay on discovery.	On Pr•gramme	On Programme	31-Dec-09	C Neil
s L	statutory consultation process.  Large number of objections.  TRO process is subject to a public hearing process.	TRO(s) due to a large	Requirement to start construction using TTROs	D Fraser	Hylline		Comms strategy to include provision of process and drawings on website for public viewing	N/A	On Programme	30-Sep-09	S Clark
							TRO strategy approved by board, discussion to be held with CEC head of transport to reduce risk of legal challenge	On Programme	Complete	31-Oct-09	S Clark
							TRO Strategy to CEC Transport, Infracstructure and Environment Committee on 22 Sept 09	N/A	On Programme	22-Sep-09	D Fraser
							Use of TTROs to undertake construction of permanent works in advance of permanent TROs being approved	On Programme	On Programme	30 Jan-11	A Sim
1084	Coonstraints applied to work areas post-contract to satisfy stakeholders	Additional Traffic Management and enabling works are required to meet stakeholder constraints applied postcontract		G Barclay	HIP III		Assess TM implications to minimise enabling works and additional cost. Areas concerned are Haymarket, York Place to Picardy and Baltic Street Junction.	On Programme	On Programme	31-Oct-09	G Barclay



# 4 Week Period Reporting Pack 09/10

9:

Edinburgh Tram Project

# **Reporting Period:**

Period 06 2009/10

# **Transport Scotland Project Manager:**

John Ramsay

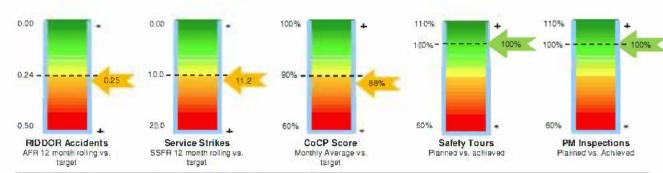
# **Progress Meeting Date:**

Report authorised by:	Steven Bell
Signature:	
Date:	

For and on behalf of tie Limited

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## 1 Executive Summary



HS&E ACCIDENTS	and INCIDENT	SSUN	MARY								
Total	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	ENV	RTA	МОР	AFR	SFR
Period	124,881	0	0	1	15	9	0	0	1	0.00	7.21
13 period rolling	1,592,205	1	3	30	225	178	3	16	58	0.25	11.18

- There have been no reportable accidents during Period 6. The 13 period AFR is 0.25 compared to the target, 0.24 accidents per 100,000hrs worked.
- There has been a decrease in the overall service strike frequency for the project, however, a number of water services have been struck by BSC. A new 'record of service damage' form is being used to help identify areas of causation.
- Director's Safety tours and Project Manager inspections have achieved 100% of those planned, however, a concerted effort is still having to be made to carry out joint inspections with the contractor.
- Further CoCP inspection have been carried out by tie, details of which are contained in Appendix B. Joint tie / BSC inspections have identified the main issues on BSC sites as – Provision of PPE, Housekeeping and Planning and Management. These issues have been addressed directly on site and are being monitored.
- Period 6 "Deliver a Safe Tram" inspection metrics were carried out on 4 activities across the project, 2 at Princes Street, 1 at the guided bus-way and 1 at the Depot.

#### **Progress**

Transport Scotland and City of Edinburgh Council have been briefed on the use of the formal Dispute Resolution Process contained within the Infraco contract and this was reported to the full council Meeting on 20<sup>th</sup> August. Strong and <u>full</u> Council support was given to the strategy being adopted by **tie**.

During the period the number of items in formal dispute with BSC has risen to 6. The table below shows the stage of the process each of these disputes is in and indicates, where known, which have been referred to mediation and which to adjudication. This decision is made following the Chief Executive's meeting part of the internal DRP process. **tie** has implemented a robust "Challenge" process to ensure that before any issue is referred to DRP that it has been externally and thoroughly tested prior to referral.

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DRP No	Subject	DRP process commenced	PD Meeting	Position Papers	CEO Meeting	Referral	Decision
3	Hilton Car Park	V	V	V	V	14/09	11/10
4	EOT1	V	V	V	V	Mediation 22/23 Oct	Mediation 22/23 Oct
5a	Gogarburn	<b>√</b>	<b>V</b>	V	21/09	30/09*	27/10*
5b	Carrick Knowe	V	V	V	21/09	30/09*	27/10*
5c(B)	Russell Road	V	V	15/09	2/10	11/10*	7/11*
Α	MUDFA Bev 8	V	1	15/09	2/10	11/10*	7/11*

Commenced by tie
Commenced by BSC

<sup>\*</sup>Dates are based on proceeding directly to Adjudication.

Significantly, during the period, as certain items have entered the DRP process, this has allowed **tie** to use a facility within the contract to instruct works in DRP to progress (this is a Clause 80.15 instruction). Instructions to this effect have been issued for 2 of the structures in DRP and work has subsequently started at Carrick Knowe Bridge as a result of this.

The lack of a commercially agreed programme and the decision to apply formal contractual measures to resolve outstanding issues with the BSC consortium presents further risks in relation to the attribution of additional costs and delay to completion of the project. **tie** Ltd has taken extensive legal and technical advice, including Counsel's opinion, and is confident of its position on the key matters in dispute. However, given the nature of the process and the complexity of certain issues, it is unreasonable to expect that all adjudication outcomes will be awarded in the favour of **tie** Ltd and it will also be open to the BSC consortium to use the contract to formally pursue their objectives.

We continue in this report to reflect an outturn estimate of £527.1m. However, given the commercial uncertainties with BSC and continuing delays to the project it is now considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m. Until the key issues are resolved through the contractual and legal process, it will not be possible to forecast accurately a revised budget outturn. It is also not possible at the present time to predict the conclusions of reviews of contingency option programme delivery options, including additional sources of funding.

The contract with the BSC consortium prescribes a timetable for resolution of contractual disputes and it is expected that the budget and programme implications will become increasingly clear during the remainder of 2009.

Regular briefings will be provided to both CEC and Transport Scotland to keep them updated on progress and implications for the project programme and finances of all the above matters, and tie met with TS most recently on 9<sup>th</sup> September 2009.

The cost, programme and risk information in this Period 6 report continues to be based upon an <u>unapproved</u> forecast on the information reported in May 2009. This will be updated once the above actions are progressed.

Overall progress remains behind the master programme, primarily due to:

- Finalisation of the agreement of change delaying the commencement of work;
- Incomplete utility diversions in the On-Street sections caused in part by traffic management constraints;

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- Slow mobilisation of INFRACO, including lack of formal sub-contracts being in place;
- Failure of INFRACO to submit preparatory paperwork in a timely manner i.e. Work Package Plans, Method Statements etc;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to INFRACO (now recorded in v49 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated design programme and validation

Agreement of a revised programme is one of the key priorities for the PMP and this was one of the key discussion topics at mediation. Discussions on programme revision and potential extension of time awards to BSC are continuing and remain one of the most significant differences between the parties. During Period 06 **tie** has formally rejected the BSC proposed Rev 2.0 programme. This is likely to be a future DRP topic.

The **tie** live programme currently predicts an Open for Revenue Service date in late **October 2012**. This has slipped slightly since last period and is mainly due to the lack of progress being achieved by INFRACO across the route compounded by delays caused by Utility Diversions at Haymarket, Leith Walk and Newhaven.

As per the previous period reporting **tie** retain an unapproved recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. This remains a **tie** only view as to date a recalibrated programme although now submitted by INFRACO has not been agreed with BSC.

#### Progress - Design

Progress reported in period 6 for design is as follows:

Phase 1a only	Number	required	Number			
	v31	V49	Submitted	Granted		
Prior Approvals	49	55	51 (93%)	50 (91%)		
Technical Approvals	71	87	77 (86%)	70 (80%)		

Reasons for design slippage are being reviewed and recorded each week at the design taskforce meeting which is focused on resolving outstanding design issues. This slippage has been addressed as part of the re-calibration of the programme. **tie** is identifying and implementing opportunities to mitigate the impacts of this slippage.

#### Progress - MUDFA

Progress on MUDFA works during Period 6 is presented below (this excludes the remaining utility works being undertaken outwith the MUDFA contract on sections 1A & 7B):

Rev.08 Figures - Period 06 2009-10	Po	eriod	Delta	Cumu	Delta	
MUDFA PERIOD 06 PROGRESS	Plan	Actual		Plan	Actual	
Section 1a Newhaven to Foot of the Walk	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 1b Foot of the Walk to McDonald Road	0.0%	0.0%	0.0%	100.0%	99.9%	-0.1%
Section 1c McDonald Road to Princes Street West	5.5%	2.2%	-3.3%	100.0%	91.3%	-8.7%
Section 1d Princes Street West to Haymarket	6.1%	1.4%	-4.6%	100.0%	98.0%	-2.0%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	3.0%	1.0%	-2.0%	100.0%	96.8%	-3.2%
Section 2 Haymarket to Roseburn Junction	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5a Roseburn Junction to Balgreen Road	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5b Balgreen Road to Edinburgh Park Central	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5c Edinburgh Park Central to Gogarburn	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 6 Gogar Depot	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 7a Gogarburn to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%

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Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	2.4%	0.8%	-1.6%	100.0%	97.4%	-2.6%

#### Key points to note are:

- Progress at the end of period 6 is 97.4% complete for all MUDFA works. 38,462 linear m of diversions have been completed, with 311 linear m achieved in the period against a planned 944 linear m;
- The majority of the works are now concentrated around the Haymarket and York Place to Picardy sections of the route. The reduced output is again representative of some of the congestion issues with existing utilities;
- Carillion works within Section 1A are complete, and tender award for the remainder of the Section 1A utilities diversions is expected during Period 7;
- SGN service connections on Leith Walk were completed on 11/09/09, and connection works are ongoing at Shandwick Place:
- BT cabling works continue progressing well at three locations;
- No significant safety incidents occurred during the period, and as-built progress has been positive and in maintaining alignment with agreed programme dates.

#### Progress - INFRACO

The project continues to experience problems with slow progress for INFRACO works and, in particular, the appointment of direct BSC resource and the final appointment of the main package contractors. The BSC sub-contractors continue to operate with Limited Letters of Intent whilst awaiting conclusion of the full sub-contracts. Slow provision of estimates and finalisation of the agreement of change - Base Date Design Information (BDDI) to IFC is delaying the commencement of works at various locations including at Haymarket viaduct, Russell road bridge, Murrayfield pitches Retaining Wall, Baird Drive Retaining Wall, Carricknowe bridge, Depot building and Tower Place bridge, although in the period tie has issued instructions in relation to 2 structures in the DRP process to get work started. These are Carrick Knowe where BSC have not mobilised and Russell Road Retaining Wall 4.

The work has continued on a number of worksites including:

#### Section 1C/1D: City Centre Princes Street:

- In both the east and west sections of the site work has continued with track formation preparation, track slab construction, track laying and slab construction; central reserve works; carriageway formation preparation, sub-base and base course works and kerbing and footpath works. Work has now also commenced at both Lothian Road junction and at the foot of the Mound;
- A programme is being developed to ensure that both bus shelters and trackers can be installed and operational before the end of November;
- Princes Street is 64 % complete and due for handback to CEC by 28<sup>th</sup> November.

#### Section 5B Balgreen Road to Edinburgh Park Central:

- At the guided bus way section piling works started and 1/3<sup>rd</sup> of section now available to start Track works. Track works to commence early Period 7;
- Edinburgh Park Station Bridge: BSC continued to work on diaphragm construction, deck slab and cope – 74% complete.

#### Section 5C Edinburgh Park Central to Gogarburn:

 A8 underpass combined phase 1 & 2 is on hold. Further work required to quantify scope of work required by Scottish Power to confirm status of existing cables.

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Construction methodology has been agreed with Telecoms companies for a recommencement in period 07.

#### Section 6 Gogar Depot

- Depot Access Road and Depot Building Foundations started on 31<sup>st</sup> August 2009; 76 out of 263 pours completed;
- Depot Building Steelwork due to start late September 2009.

#### Section 7 Gogarburn to Edinburgh Airport

- Gogarburn Bridge replacement piers and capping beam have been constructed.
   Bridge Decking works started. 64% complete:
- Gogar Culvert No.1 recommenced during Period 06;
- Gogar Culvert No.3 recommenced during Period 06.

Progress is being monitored against the Revision 1 programme. The summary milestones against the agreed INFRACO contract and the short term Rev 1 programme milestones are shown in the table below.

Milestones	Period 06		Cumulative (S	Contract	
	Planned	Actual	Planned	Actual	Planned to P06
Prelims	2	2	53	53	53
Construction	5	4	46	45	621

#### Progress - TRAMCO

Good progress continues to be made with the progress of deliverables against the schedule. Fabrication has commenced on the body shell for the 10<sup>th</sup> tram. Internal fit out and wiring continues for Trams 2 & 3 and the first tram has started Factory Acceptance Tests. A contingency is being investigated for storage and testing should the first trams be complete before the depot is ready to receive them.

#### **Preparing for Operations**

tie has launched a new workstream know as 'Preparing for Operations'. This is a joint initiative with TEL and is focussed on getting ready for the Testing & Commissioning phases as well as the operational introduction of trams. Closely related to this, tie has recently notified Transdev of its intent to exercise its option to conclude the existing contractual arrangements as allowed for in the DPOFA contract. Discussions about an ongoing relationship are underway.

#### Progress - Testing & Commissioning

The process for acceptance of the Edinburgh Tram is designed to ensure that it is delivered in an acceptably safe, compliant and efficient manner. This process is undertaken via the testing and commissioning regime to validate and verify the system against applicable standards. To this end, a number of processes are underway including:

- Design Assurance. This process being undertaken by BSC(SDS)/tie;
- Quality Checking: 11 of the 37 BSC inspections and test plans are in progress;
- Systems Safety: Safety verification plans are in place and this process of verification is underway with INFRACO, the ICP, TEL and Transdev all involved in the process.

BSC have produced Inspection and Test Plans (ITP's) for the current set of construction works, however they have not yet produced a consolidated Test and Commissioning Plan.

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Constituent elements are available from CAF, the tram manufacturer, the Operator and an overall framework from TEL exists to cover the activities.

It is intended over the next three periods to obtain collective engagement on testing and commissioning, and agreement to the formation of a project wide multi-disciplinary test coordination team as part of the "Preparing for Operations" key workstream.

## Progress - Interface with 3rd Party Projects: Gogar Surface Station

At the end of Period 6 the baselined design phase was 15% complete compared with 19% planned. The cost of work done is £130k compared with £170k planned. The forecast outturn remains unaffected. This reflects the slower progress made by SDS as the optioneering exercise was being completed.

The impact of Gogar Interchange on **tie**'s Authorised Undertaker role for EARL needs to be regularised such that any potential conflict of interest is addressed. This is being pursued directly with Transport Scotland.

**tie** will update its programme for Gogar Interchange by 22/9 to incorporate the updated Infraco design programme. This programme will then be adjusted together with TS & NR to produce an agreed integrated programme for the Gogar Interchange.

Project management meetings have continued between **tie**, TS and NR and a further design workshop took place on 19 August. Network Rail is arranging a further workshop for Period 7 as well as regular contact between designers.

Mott MacDonald has provided revised plans and sections and tie will produce an update of the budget cost for discussion with Transport Scotland in Period 7 in line with provision of revised estimates by Network Rail.

#### Progress - Other

### Temporary traffic regulation orders (TTROs)

- No major traffic switches implemented in the period;
- Traffic management planning ongoing for Princes St Phase 3, Haymarket and Picardy Place:
- It is looking increasingly likely that buses will be returning to Princes Street at the end of November – this will be confirmed by CEC on 29<sup>th</sup> September 2009. Traffic Management plans for this major traffic switch are currently under development.

#### <u>Traffic regulation orders (TROs)</u>

- A TRO programme is in place to ensure that the first order TRO 1, which will allow for operation of the tram system, envisages the order being made in July 2010;
- Following TPB and pending CEC approval on 22 September, it is expected that the statutory consultation process to commence in early October 2009.

### Network Rail

- INFRACO has now delivered its EMC Management Plan and EMC Strategy for NR infrastructure assets and established the scope for the immunisation works;
- INFRACO will be developing the full assurance case for NR acceptance. Preliminary assurance case to enable traction power testing and commissioning has been completed. Further assurance will be provided up to, and including, bringing into service.

#### Third party interfaces

• NR – the Bridge Agreements are not yet concluded. There is an outstanding issue on indemnities to close out. CEC are taking this matter up directly with TS. The Operating Agreement draft with NR is currently on hold pending resolution of the same indemnities issue that is concerning CEC with the Bridge Agreement. Both matters are with CEC for resolution.

- Forth Ports Forth Ports have introduced a new clause into the Agreement drafting which seeks to link payment for the Tram works with the Planning Approval for the Leith Harbour Development, this is unacceptable to CEC and the matter has been raised for resolution at a senior level.
- Haymarket car park compensation tie have agreed compensation with NR. tie continue to discuss with TS the additional compensation payable to First ScotRail, as a result of the extension of the FSR franchise from Nov 2011 to Nov 2014. It is believed that this should have been allowed for in the franchise extension discussions between TS and FSR. tie plan to take the matter up directly with TS;
- Building fixings the process of lodging court submissions has commenced with 9 applications lodged in the period. The building fixing programme will commence in Spring 2010;

### BAA - Burnside Road (BAA) Raynesway Construction.

- Works commenced on 10<sup>th</sup> August 09 and are currently on programme;
- Generally planned Completion Date is maintained (January 2010).

#### Section 7B Utilities

- MUD works The MUD contractor (Farrans) continues on site;
- The installation of the gas main is now 95% complete requiring tie-ins at both ends;
- The multi-utility trench is 75% installed and backfilled.

#### Hilton Car Park & Phase 1

INFRACO – No works have commenced. Reviewable Tram Works Design (RTWD) Issued. BAA response received. Formal DRP started and expect work to commence on car park works on 28/09/09.

#### Section 1 Utilities

 Invitation to Tender documents (ITT) sent to 5 companies (Farrans, Morrisons, Raynesway, Clancy Docwra and UUPLC). Tenders returned on 11-Sept-09 and award expected 2/10/09.

#### Fast link modifications (Front Line)

- Works completed.
- BT manhole is to be built after the Scottish Power cable has been diverted.

#### Murrayfield Pitches (Souters)

 Final accounts now agreed. Subject to works being carried out during maintenance and establishment period.



### Archaeological works at Constitution Street (Frontline):

- The archaeological works have now recovered in excess of 280 skeletons and this figure will rise beyond the 300 mark prior to the end of the works;
- Reinstatement of the next area approximately 20 metres long commenced;
- Because of the large number of skeletons found and potential post excavation works the budget for this work is under threat. This is being reviewed and will be reported in future reports once the scale of post excavation works including carbon dating, reporting and re-internment is scoped.

#### Cost

#### Current Financial Year

The budget for Phase 1a in 2009/10 is £150.1m (forecast £119.7m), which was produced linking the **tie** re-baselined programme to Infraco construction milestones. **tie** have escalated four key issues to Dispute Resolution Procedure (DRP) and BSC have escalated two issues following the failure of mediation to bring both parties to an agreement. It is anticipated that a fully agreed programme will not be made available from the Infraco contractor until key DRP issues have been resolved.

The unresolved commercial issues introduced a high degree of uncertainty to the outturn costs for financial year 09/10 in relation to activities which the Infraco may not start until commercial differences are resolved and **tie** may not have sufficient contractual leverage to instruct commencement. The phase 1(a) outturn figure for 2009/10 of £119.7m (£150.1m period 5) has been fully re-assessed in period 6 in-line with **tie**'s latest internal view of programme, coupled with Project Managers informed view of Infraco deliverables in 2009/10. The reduction in forecast this month is in-line with the high-side sensitivity flagged in the period 5 TS report.

The ETP Phase 1(a) 2009/10 outturn (£119.7m) is particularly sensitive to Infraco milestone achievement. Our forecast is dependent upon work commencing on the key structural and on-street works flagged below, with the values forecast to be achieved this financial year shown in brackets.

It is assumed that structural work will recommence on the Haymarket Viaduct (£450k) by December and the A8 Underpass (£653k) is also assumed to have progressed to a stage where milestones are being achieved in January. Along the railway corridor works are due to begin at Carrick Knowe (£348k) in September; and Russell Road Retaining Wall (£349k), Baird Drive Retaining Wall (£185k) and Balgreen Road Bridge (£411k) will all start in January/February 2010.

In addition, for track, we anticipate that the Guided Busway  $(\mathfrak{L}1.3m)$  will be complete by the end of March. Haymarket Yards  $(\mathfrak{L}1.3m)$  and the area between Saughton and Edinburgh Park  $(\mathfrak{L}1.8m)$  are assumed to commence in December/January. We anticipate that the Depot milestones will be 75%  $(\mathfrak{L}6.5m)$  complete by March 2010.

In the On-street section, we anticipate Tower Bridge piling (£523k) starting in October, to be complete by end March 2010. Leith Walk Track and Highways (£1.5m) anticipate a January start. St. Andrews Square Track and Highways (£600k) forecast is also reliant upon a February start date. Princes St works (£2.3m) are ongoing and works at Shandwick Place (£800k) are anticipated to start September/October 2009.

Funding available from TS for the project in 2009/10 is £149m. The TS share of this year's updated forecast (£122.9m which includes a £3.9m fee payable to BSC for the postponement of Phase 1b) is £112.8m, giving available headroom of £36.2m.

#### Actual YTD P6 & forecast P7-P13 FY09/10

£m	YTD P6	Forecast P7 - P13,09/10	Total FY09/10
Infrastructure and vehicles	32.0	52.9	84.9
Utilities diversions	7.5	0.8	8.3
Design	1.2	1.3	2.5
Land and compensation	0.7	0.9	1.6
Resources and insurance	6.4	8.5	15.0
Base costs	47.8	64.4	112.2
Risk allowance	-0.0	7.5	7.5
Total Phase 1a	47.8	71.9	119.7

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Phase 1a COWD to Period 6 is £47.8m (Period 5 is £40.3m) against budget £54.2m. The main drivers for the -£6.4m variance are: the timing of Infraco works costs forecast in 2009/10 offset by MUDFA costs incurred over the original plan.

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Forecast payment of £3.2m was made to the Infraco Contractor in August relating to phase 1b costs.

#### Total Project Anticipated Forecast Cost

Re-baselined Phase 1a AFC and profiling

£m	Cum	Actual	FY	FY	FY	AFC
	FY07/08	08/09	09/10	10/11	11/12	
Infrastructure and vehicles	30.7	45.4	84.9	102.6	34.3	297.8
Utilities diversions	18.4	33.4	8.3	0.0	0.0	60.1
Design	21.4	4.7	2.5	1.1	0.1	29.8
Land and compensation	16.8	1.7	1.6	0.1	0.8	21.0
Resources and insurance	42.7	15.8	15.0	10.6	9.8	93.8
Base costs	130.0	101.0	112.2	114.3	44.9	502.5
Risk Allowance	0.0	0.0	7.5	9.6	7.5	24.6
Total Phase 1a	130.0	101.0	119.7	123.9	52.5	527.1
Phase 1b postponement	3.0	0.0	3.2	0.0	0.0	6.2
Total Phase 1a and Phase 1b	133.1	101.0	122.9	123.9	52.5	533.3

The table above reflects the base costs and risks aligned to the tie re-baselined programme (Feb-12), and is informed by the re-alignment of the Infraco milestones schedule for 2009/10 in-line with the latest live programme and Project Management assessment of deliverables. The AFC for Phase 1a above includes an unapproved increase of £15.1m to the project risk allowance. The approved cost estimate for delivery of Phase1a of the project remains at £512m. The phasing of the £527.1m has been updated in period 6 by tie, and will be further updated when there is an updated agreed programme with the Infraco contractor.

The latest forecast view includes £3.2m of costs relating to Phase 1b which crystallised as contractually payable to BSC due to the postponement of Phase 1b (this will require to be covered by current funding). Coupled with the re-baselined forecast, there is £11.7m of funding headroom within the £545m total funding available.

#### **Risk & Opportunity**

There were twelve risk reviews held in the period. Two items were closed on the Infraco concerns register and 7 items added. There were sixteen risk draw downs approved in the period totaling £731,675. These are detailed later in this report. This leaves a risk and contingency balance of £8,780,397 (based upon the approved Project Risk Allowance at Financial Close).

The Project Risk Allowance at financial close was £30,336,196. The Project Risk Allocation has reduced by £731,675 in the period. Total drawdowns to the end of Period 6 09/10 now total £21,555,799. Remaining risk balance based on the approved QRA is £8,780,397.

All existing risks, as well as those recently added, are being reviewed to ensure the QRA output is as accurate as is reasonably possible. It is accepted that the additional risks and increase in QRA output are currently unapproved. These are within the unapproved range in costs provided to TS on 26th May. tie will continue to report on the risk allocation at Financial Close until a new budget (with an updated QRA) is approved.

Approved drawdown applications on the project risk allocation in Period 6, amount to £731,675.

#### Communications/Customer Service

#### Media / Press Activity

Media Coverage for Period 6 has been extensive as usual, with articles relating to the project appearing daily in various local newspapers and intermittently in national publications.

Positive news pieces included a story in The Herald with regard to a Carbon Emissions report by the Scottish Government. Coverage of the progress made on the Gogarburn bridge works and the Princes Street reinstatement also made for positive press for the project. A profile of our extensive archaeological works for the Edinburgh Trams website was conducted using Bit TV. John Lawson, Head of Archaeology CEC and two contractors, Headlands and GUARD, where interviewed as part of the profile.

Upcoming media stories for Period 7 include a profile on Women and Construction, a "Day in the Life of the Logistics team" piece along with a story highlighting the new Tramformer scheme for Primary Schools which promotes awareness of the project and safety around worksites. Another profile piece concerning Richard Jeffrey having reached 4 months on the project will be printed during the first week of Period 7.

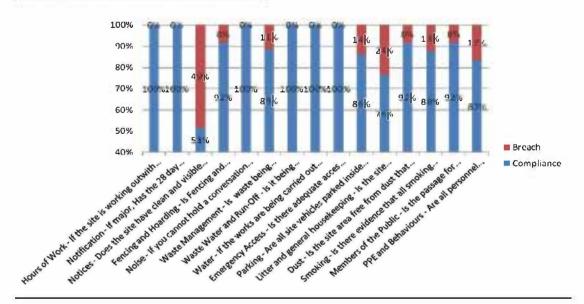
#### **Customer Service Activity**

Overall, correspondence from Period 6 has fallen by 99 contacts from Period 5. Each week logged under 100 contacts, with week 3 only recording 59 contacts.

Information requests constitute the majority of all correspondence for Period 6, with 219 out of the total 299 contacts made regarding information on the project and its various components. This trend has not differed from previous Periods, however the total requests for information dropped by 106 from Period 5. Typical enquires included information on Gas Abandonment works on Leith Walk, parking suspensions, Haymarket works and timescales for various works sites across the route.

Period 6 Complaints (43) and COCP Complaints (14) have increased since Period 5 by 14 and 4 contacts. Weeks 1 and 3 especially logged high numbers of complaints with 10 and 17 being recorded by the Customer Service team. With 17 complaints during week 3, issues concerning alleged inconsistent information on notifications and lack of completion dates on signage at work sites. COCP complaints were logged concerning similar issues of signage not being accurate.

#### Code of Construction Practice Compliance



Delivery Organisation Period Progress Report

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#### Public Information Planning

Various pieces of signage have been produced for different areas and events. Open for Business signage was designed and produced for Frederick Street, Murrayfield and the Conan Doyle bar. Banners were also made for the Edinburgh Festival firework display.

A strategy planning meeting has taken place in preparation for works on York Place and London road, while consultations with Broughton Community Council are to take place regarding works in the area. Regular meetings are also held with Parliamentary MSPs regarding the project and its progress.

#### Website / Internet Communications

There were 13102 visits to the <a href="www.edinburghtrams.com">www.edinburghtrams.com</a> website this period, with the number of followers on twitter rising to 222 against last period's 116. Facebook interaction and membership has also risen with 290 'fans' now following our facebook page as compared with last period's 183.

Video podcasts were introduced half-way through the period to <a href="www.edinburghtrams.com">www.edinburghtrams.com</a>, and the Apple iTunes store. While it is not possible to track how many people subscribe for these updates via iTunes, 773 people accessed the podcast feed on our servers, indicating that at least this many people viewed the podcast online or downloaded it.

#### Logistics

Period 6 Logistics figures again remain constant at roughly 340 inbound deliveries per week. Outbound deliveries however dropped significantly from the 70 recorded during Period 5. Between week 1 and week 2 during Period 6 Outbound deliveries dropped by 27, from 34 to 7 deliveries. Figures for boxes, cages and rails delivered as part of the inbound deliveries also dropped by around 400 each between week 1 and 2 also. Superdrug delivery point has been moved to Hanover Street due the street being cleared of difficulties.

#### Partner and Stakeholder Communications

In the last month, Tramformer presentations have been conducted at 17 primary schools in Edinburgh. Recruitment is now under way, and 2 pupils are being selected from each participating school. Visits to sites will take place next month.

We have also been involved in running workshops in conjunction with Scottish Businesses for Communities. The pilot programme ran at Craigroyston High School this month, 8 workshops were run to a total of 80 Primary 7 pupils.

Edinburgh Trams was also represented at the Scottish Transport Convention on the 15/09/09 with an information stand and employees on hand to discuss with attendees the progress of the project.

#### Freedom of Information Requests

For Period 6, a total of 8 Freedom of Information requests have been dealt with. Of the 8 requests, 5 were completed, 2 are waiting to be signed off for completion while one request is still in progress. One request has also gone to the Information Commissioner for consideration.

#### Winter Festival

A Marketing and PR working group has been set up comprising of professionals from City of Edinburgh Council, tie ltd, DEMA, Winter Festivals and retailers in the City Centre. The group is continuing to meet to discuss the proposals for this year's Winter Festival and to insure the success of the festive celebrations.

A report on the Princes Street Christmas proposals will be consider at the next Policy and Strategy Committee on 29 September. This will consider the main options for managing Princes Street over the Winter Festivals period in light of discussions undertaken with city

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centre retailers, and to determine when buses, taxis and cycles will be returned to Princes Street following the completion of the tram construction works. An update will be provided in the next report.

# 2 Progress

#### 2.1 Overall

The cost, programme and risk information in this Period 6 report continues to be based upon an <u>unapproved</u> forecast on the information reported in May 2009. This will be updated once the above actions are progressed.

Overall progress remains behind the master programme, primarily due to:

- Finalisation of the agreement of change delaying the commencement of work;
- Incomplete utility diversions in the On-Street sections caused in part by traffic management constraints;
- Slow mobilisation of INFRACO, including lack of formal sub-contracts being in place;
- Failure of INFRACO to submit preparatory paperwork in a timely manner i.e. Work Package Plans, Method Statements etc;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to INFRACO (now recorded in v49 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated design programme and validation

Agreement of a revised programme is one of the key priorities for the PMP and this was one of the key discussion topics at mediation. Discussions on programme revision and potential extension of time awards to BSC are continuing and remain one of the most significant differences between the parties. During Period 06 **tie** have formally rejected the BSC proposed Rev 2.0 programme.

The tie live programme currently predicts an Open for Revenue Service date in late October 2012. This has slipped slightly since last period and is mainly due to the lack of progress being achieved by INFRACO across the route compounded by delays caused by Utility Diversions at Haymarket, Leith Walk and Newhaven.

As per the previous period reporting **tie** retain an <u>unapproved</u> recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. This is still a **tie** only view as, to date a recalibrated programme although now submitted by INFRACO has not been agreed with INFRACO. **tie** has commented on submissions received from INFRACO and following detailed discussions with both teams without resolution **tie**, as mentioned above, have now formally rejected the proposed Rev 2.0 submission. **tie** continue to record and monitor the causes and effects of delay.

The table below remains as was previously reported and as well as the recalibrated baseline programme it also reflects a completely unmitigated programme <u>as a control scenario only.</u> This is an <u>unapproved</u> delay to the Open for Revenue Service date. On a section by section basis there are "swings and roundabouts" identified in terms of improvement / degradation of delivery dates. Integration of these sections by BSC is now underway and the re-baselined programme assumes the all logic changes will be accepted by BSC.

Area	Description	Unmitigated Finish	Re-baseline Finish
Section 1A	Newhaven Road to Foot of the Walk	03-MAY-12	08-SEP-11
Section 1B	Foot of the Walk to McDonald Road	10-JAN-12	09-SEP-11
Section 1C	McDonald Road to Princes Street west	28-MAR-12	06-SEP-11
Section 1D	Princes Street west to Haymarket	19-OCT-11	17-MAR-11
Section 2A	Haymarket to Roseburn junction	14-FEB-11	28-JUL-10
Section 5A	Roseburn Junction to Balgreen Road	20-MAR-12	17-JUN-11
Section 5B	Balgreen Road to Edinburgh Park central	23-JUN-11	04-FEB-11
Section 5C	Edinburgh Park Central to Gogarburn	24-OCT-11	20-JAN-11

Section 6A	Gogar depot	28-MAR-11	15-OCT-10
Section 7A	Gogarburn to Ingliston Park and Ride	07-JUL-11	11-MAR-11
Section 7B	Ingliston Park and Ride to Airport	26-JUL-11	11-MAR-11
Section A	Depot (ready to receive trams)	21-JAN-11	15-OCT-10
Section B	Test track	07-JUL-11	27-DEC-10
Section C	All construction complete	20-APR-12	27-AUG-11
Section D	Open for Revenue Service	17-OCT-12	23-FEB-12

Importantly, the re-baseline programme does not take account of many opportunities including:

- 1. Improved productivity rates Princes Street and Depot are proving to be important tests in this regard;
- 2. Embargo relaxations;
- 3. Alternative construction methodologies to recover time;
- 4. Adjustments to the testing and commissioning phase (the original programme window has been held); or
- 5. Partial opening options.

### 2.2 Dispute Resolution

Transport Scotland and City of Edinburgh Council have been briefed on the use of the formal Dispute Resolution Process contained within the Infraco contract and this was reported to the full council Meeting on 20<sup>th</sup> August. Strong and <u>full</u> Council support was given to the strategy being adopted by **tie**.

During the period the number of items in dispute with BSC has risen to 6. The table below shows the stage of the process each of these disputes is in and indicates, where known, which have been referred to mediation and which to adjudication. This decision is made following the Chief Executive's meeting part of the internal DRP process. **tie** has implemented a robust "Challenge" process to ensure that before any issue is referred to DRP that it has been externally and thoroughly tested prior to referral.

DRP No	Subject	DRP process commenced	PD Meeting	Position Papers	CEO Meeting	Referral	Decision
3	Hilton Car Park	V	V	V	V	14/09	11/10
4	EOT1	V	V	1	√	Mediation 22/23 Oct	Mediation 22/23 Oct
5a	Gogarburn	V	V	V	21/09	30/09*	27/10*
5b	Carrick Knowe	V	V	V	21/09	30/09*	27/10*
5c(B)	Russell Road	V	V	15/09	2/10	11/10*	7/11*
Α	MUDFA Rev 8	V	V	15/09	2/10	11/10*	7/11*

Commenced by tie
Commenced by BSC

Significantly, during the period, as certain items have entered the DRP process, this has allowed **tie** to use a facility within the contract to instruct works in DRP to progress (this is a Clause 80.15 instruction). Instructions to this effect have been issued for 2 of the structures in DRP and work has subsequently started at Carrick Knowe Bridge as a result of this.

<sup>\*</sup>Dates are based on proceeding directly to Adjudication.

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The lack of a commercially agreed programme and the decision to apply formal contractual measures to resolve outstanding issues with the BSC consortium presents further risks in relation to the attribution of additional costs and delay to completion of the project. **tie** Ltd has taken extensive legal and technical advice, including Counsel's opinion, and is confident of its position on the key matters in dispute. However, given the nature of the process and the complexity of certain issues, it is unreasonable to expect that all adjudication outcomes will be awarded in the favour of **tie** Ltd and it will also be open to the BSC consortium to use the contract to formally pursue their objectives.

We continue in this report to reflect an outturn estimate of £527.1 m. However, given the commercial uncertainties with BSC and continuing delays to the project it is now considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m. Until the key issues are resolved through the contractual and legal process, it will not be possible to forecast accurately a revised budget outturn. It is also not possible at the present time to predict the conclusions of reviews of contingency option programme delivery options, including additional sources of funding.

The contract with the BSC consortium prescribes a timetable for resolution of contractual disputes and it is expected that the budget and programme implications will become increasingly clear during the remainder of 2009.

Regular briefings will be provided to both CEC and Transport Scotland to keep them updated on progress and implications for the project programme and finances of all the above matters, and tie met with TS most recently on 9<sup>th</sup> September 2009.

The cost, programme and risk information in this Period 6 report continues to be based upon an <u>unapproved</u> forecast on the information reported in May 2009. This will be updated once the above actions are progressed.

Overall progress remains behind the master programme, primarily due to:

- Finalisation of the agreement of change delaying the commencement of work;
- Incomplete utility diversions in the On-Street sections caused in part by traffic management constraints;
- Slow mobilisation of INFRACO, including lack of formal sub-contracts being in place;
- Failure of INFRACO to submit preparatory paperwork in a timely manner i.e. Work Package Plans, Method Statements etc;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to INFRACO (now recorded in v49 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated design programme and validation

Agreement of a revised programme is one of the key priorities for the PMP and this was one of the key discussion topics at mediation. Discussions on programme revision and potential extension of time awards to BSC are continuing and remain one of the most significant differences between the parties. During Period 06 **tie** has formally rejected the BSC proposed Rev 2.0 programme. This is likely to be a future DRP topic.

The tie live programme currently predicts an Open for Revenue Service date in late October 2012. This has slipped slightly since last period and is mainly due to the lack of progress being achieved by INFRACO across the route compounded by delays caused by Utility Diversions at Haymarket, Leith Walk and Newhaven.

As per the previous period reporting **tie** retain an unapproved recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. This remains a **tie** only view as to date a recalibrated programme although now submitted by INFRACO has not been agreed with BSC.

### 2.3 Design

#### **IFC** Design

Approvals and Consents are measured at V48 and are progressing as follows:

- IFCs Phase 1a 80 issued out of 124 (a number of new IFCs included in V45 -V47 programmes);
- Prior Approvals are progressing well with 91% granted, four left to be submitted (the RBS Gogarburn Tramstop, Murrayfield Accommodation Works, Modifications to Murrayfield TS retaining Wall & Gogar Interchange) and 6 left to be granted;
- Technical approvals also progress well with 82% granted (from an increased no. of TAA),
   Ten remaining to be submitted and 19 (7 from v31) left to be granted;
- Structures approvals are progressing well 6 to date remain to be approved and all original structures in V31 have been approved;
- Roads approvals Two areas remain outstanding for Technical Approval in Phase 1a (1A3 & 1C2);
- Scottish Water has sent formal acceptances to BSC for all sections excepting 1A3, 1C2 & 1C1. BSC have responded to these acceptances; the permit for construction for section 6 was issued 27/07/09;
- Sections 1B, 1D, 1C3, 5B & 5C close reports have been signed off by CEC, subject to BSC concluding any concessions included in the reports during construction. CEC are reviewing all other sections based on the prioritisation list provided by BSC.

Phase 1a only	Number required		Number	
	v31 V49		Submitted	Granted
Prior Approvals	49	55	51 (93%)	50 (91%)
Technical Approvals	71	87	77 (86%)	70 (80%)

Reasons for design slippage are being reviewed and recorded each week at the design taskforce meeting which is focused on resolving outstanding design issues. This slippage has been addressed as part of the re-calibration of the programme. **tie** is identifying and implementing opportunities to mitigate the impacts of this slippage.

Although there is evidence of better management of SDS by BSC, this has not yet resulted in improved design performance. The approvals task force has been supplemented by a Design Progress and Design Issues meeting to provide additional management focus on design resolution. V47 includes a number of design integration activities and the impact of these will be analysed over the coming period – it should be noted that this is a consortium issue to manage and **tie** will provide support in this respect. **tie** has implemented an extensive programme of site based monitoring to validate & verify the installation of works in line with an integrated design assured construction.

#### 2.4 Utility works (MUDFA)

Progress on MUDFA works during Period 6 is presented below (this excludes the remaining utility works being undertaken outwith the MUDFA contract on sections 1A & 7B):

Rev.08 Figures - Period 06 2009-10	Period		Delta	Cumu	Cumulative	
MUDFA PERIOD 06 PROGRESS	Plan	Actual		Plan	Actual	
Section 1a Newhaven to Foot of the Walk	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 1b Foot of the Walk to McDonald Road	0.0%	0.0%	0.0%	100.0%	99.9%	-0.1%
Section 1c McDonald Road to Princes Street West	5.5%	2.2%	-3.3%	100.0%	91.3%	-8.7%
Section 1d Princes Street West to Haymarket	6.1%	1.4%	-4.6%	100.0%	98.0%	-2.0%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	3.0%	1.0%	-2.0%	100.0%	96.8%	-3.2%
Section 2 Haymarket to Roseburn Junction	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5a Roseburn Junction to Balgreen Road	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5b Balgreen Road to Edinburgh Park Central	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%

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Section 5c Edinburgh Park Central to Gogarburn	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 6 Gogar Depot	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 7a Gogarburn to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	2.4%	0.8%	-1.6%	100.0%	97.4%	-2.6%

### Key points to note are:

- Progress at the end of period 6 is 97.4% complete for all MUDFA works. 38,462 linear m of diversions have been completed, with 311 linear m achieved in the period against a planned 944 linear m:
- The majority of the works are now concentrated around the Haymarket and York Place to Picardy sections of the route. The reduced output is again representative of some of the congestion issues with existing utilities;
- Carillion works within Section 1A are complete, and tender award for the remainder of the Section 1A utilities diversions is expected during Period 7;
- SGN service connections on Leith Walk were completed on 11/09/09, and connection works are ongoing at Shandwick Place;
- BT cabling works continue progressing well at three locations;
- No significant safety incidents occurred during the period, and as-built progress has been positive and in maintaining alignment with agreed programme dates.

Section	Commentary
Section 1a Newhaven to Foot of the Walk	Plates 1-10 transferred out of Carillion's scope of works Plates 15, 16, 17, (Baltic St Junction) Design due 02 Oct 2009 Gas Service Transfers works continue in Constitution Street between Duke Street and Mitchell Street, 2 additional connections to do Expected finish 11 Sept 2009 Gas Abandonments: Abandonments from Foot of the Walk to Mitchel St (Plates 18 to 21)-Access to deliver gas abandonments to be assessed.
Section 1b Foot of the Walk to McDonald Road	Gas main abandonment works continue – Finish moved to 28 September 2009 due to technical problems with the existing infrastructure. Water works on Leith Walk delayed due to pressure decay problem. Additional works required by Scottish water – (30 Additional service connections) - Finish date moved to 14 October 2009.
Section 1c McDonald Road to Princes Street West	Worksites at the Playhouse theatre has suffered delay due to underground structure, however design has been ratified and issued to Carillion. Work is in progress Worksite at York Place is predominantly on the South side of the Carriageway, through to North St Andrews Street Planned traffic management switch from Phase 2 York Place to Phase is planned for the 19th September 2009 The Cellar removal works at the Conan Doyle Pub Have been ratified and works are ongoing at this time with a forecast 5 week duration, Revised SW commissioning sequence requested by SW which will impact on programme.

Section 1d Princes Street West to Haymarket	CUS forecast for completion 29th November 2009 for Haymarket to Manor Place.  Traffic Management Phase 4 installed ahead of Phase 3.5 to mitigate delays from BT overrun on manhole rebuild in Palmerston Place, Additional Traffic Management required at Grosvenor Street to accommodate structure crossing and SGN works. This will be intrusive due to location of structure.  Gas Service Transfer and Abandonment programme to be integrated with current SGN works to allow for earlier completion of gas abandonment works.  West Maitland Street cellars causing problems with service connections for gas and water. Solution identified .  BT and Coms cabling works to commence on completion of CUS works. Current programme from BT shows 8 week duration.
Section 2 Haymarket to Roseburn Junction	As- Built drawings have been delivered to tie (08/09/2009) these will be reviewed by APM prior to being issued to INFRACO.  BT & C&W cabling complete.  Thus – 1 connection outstanding to Verity house. Termination in Verity house cannot be found.
Section 5a Roseburn Junction to Balgreen Road	MUDFA Diversions COMPLETE. Utilities transferred to infraco remain in Scotrail Depot
Section 5b Balgreen Road to Edinburgh Park Central	Sewer diversion at South Gyle Access bridge transferred to InfracoTelecoms proximity to South Gyle Access bridge West abutment & Bankhead Drive RW
Section 5c Edinburgh Park Central to Gogarburn	Utility diversion works complete. Telecoms re-cabling works underway.
Section 6 Gogar Depot	COMPLETE
Section 7a Gogarburn to Edinburgh Airport	Removed from CUS scope. Transferred: Being delivered by Farrans.

### 2.5 Tramworks (INFRACO)

The project continues to experience problems with slow progress for INFRACO works and, in particular, the appointment of direct BSC resource and the final appointment of the main package contractors. The BSC sub-contractors continue to operate with Limited Letters of Intent whilst awaiting conclusion of the full sub-contracts. Slow provision of estimates and finalisation of the agreement of change - Base Date Design Information (BDDI) to IFC is delaying the commencement of works at various locations including at Haymarket viaduct, Russell Road bridge, Murrayfield pitches Retaining Wall, Baird Drive Retaining Wall, Carricknowe bridge, Depot building and Tower Place bridge, although in the period tie has issued instructions in relation to 2 structures in the DRP process to get work started. These are Carrick Knowe where BSC have not mobilised and Russell Road Retaining Wall 4.

The work has continued on a number of worksites including:

#### Section 1C/1D: City Centre Princes Street:

- In both the east and west sections of the site work has continued with track formation preparation, track slab construction, track laying and slab construction; central reserve works; carriageway formation preparation, sub-base and base course works and kerbing and footpath works. Work has now also commenced at both Lothian Road junction and at the foot of the Mound;
- A programme is being developed to ensure that both bus shelters and trackers can be installed and operational before the end of November;
- Princes Street is 64 % complete and due for handback to CEC by 28<sup>th</sup> November.

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#### Section 5B Balgreen Road to Edinburgh Park Central:

- At the guided bus way section piling works started and 1/3<sup>rd</sup> of section now available to start Track works. Track works to commence early Period 7;
- Edinburgh Park Station Bridge: BSC continued to work on diaphragm construction, deck slab and cope – 74% complete.

#### Section 5C Edinburgh Park Central to Gogarburn:

 A8 underpass combined phase 1 & 2 is on hold. Further work required to quantify scope of work required by Scottish Power to confirm status of existing cables. Construction methodology has been agreed with Telecoms companies for a recommencement in period 07.

#### Section 6 Gogar Depot

- Depot Access Road and Depot Building Foundations started on 31<sup>st</sup> August 2009; 76 out of 263 pours completed;
- Depot Building Steelwork due to start late September 2009.

#### Section 7 Gogarburn to Edinburgh Airport

- Gogarburn Bridge replacement piers and capping beam have been constructed.
   Bridge Decking works started. 64% complete;
- Gogar Culvert No.1 recommenced during Period 06;
- Gogar Culvert No.3 recommenced during Period 06.

Progress is being monitored against the Revision 1 programme. The summary milestones against the agreed INFRACO contract and the short term Rev 1 programme milestones are shown in the table below.

Milestones	Period	Period 06 Cumulative (Short-Term)			Contract	
	Planned	Actual	Planned	Actual	Planned to P06	
Prelims	2	2	53	53	53	
Construction	5	4	46	45	621	

The Revision 1 programme incorporates the agreed 38 business days (seven weeks plus three days) EOT variation to the contract programme as in the table below. As had been the case in the contract programme progress, the common denominator in the Revision 1 programme remains that every activity in the programmes has a work content generated against it which translates into a weighting, allowing accurate reporting of progress.

	Pe	eriod	Delta	Cumi	Delta	
INFRACO PERIOD 06 PROGRESS (Contract Rev.01 Programme)	Plan	Actual		Plan	Actual	
Section 1a Newhaven to Foot of the Walk	5.1%	0.0%	-5.1%	31.4%	0.0%	-31.4%
Section 1b Foot of the Walk to McDonald Road	1.9%	0.0%	-1.9%	45.8%	1.5%	-30.8%
Section 1c McDonald Road to Princes Street West	1.3%	0.0%	-1.3%	13.5%	0.0%	-13.5%
Section 1d Princes Street West to Haymarket	1.1%	7.3%	6.2%	57.7%	19.0%	-38.7%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	2.8%	1.6%	-1.2%	35.2%	4.4%	-30.8%
Section 2 Haymarket to Roseburn Junction	4.4%	0.0%	-4.4%	77.5%	12.6%	-64.9%
Section 5a Roseburn Junction to Balgreen Road	3.6%	0.0%	-3.6%	73.5%	3.5%	-70.0%
Section 5b Balgreen Road to Edinburgh Park Central	0.5%	4.0%	3.5%	84.1%	17.6%	-70.4%
Section 5c Edinburgh Park Central to Gogarburn	4.4%	0.0%	-4.4%	70.1%	2.8%	-66.5%
Section 6 Gogar Depot	1.9	0.03%	-1.87%	86.4%	5.7%	-80.7%
Section 7a Gogarburn to Edinburgh Airport	5.0%	4.9%	-0.1%	55.8%	20.6%	-35.2%
Combined Sections 2A-5A-5B-5C-6A-7A (Off- Street) Haymarket to Edinburgh Airport	2.6%	1.9%	-0.7%	76.9%	10.9%	-66.0%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	2.7%	1.8%	-0.9%	60.4%	8.3%	-52.1%

Section	Commentary
Section 1a Newhaven to Foot of the Walk	Section 1A4 Lindsay Road under review. Design awaited to allow Utility diversions to be carried out for W1 Lindsay Rd RW which releases Infraco works in this section. Temp. Utility diversions at bridges complete. Infraco Bridges works start date depending on BDDI – IFC agreement.
Section 1b Foot of the Walk to McDonald Road	Roadworks due to commence post Leith embargo delayed awaiting MUDFA completion. Now likely to start Jan 10.
Section 1c McDonald Road to Princes Street West	Roadworks due to commence post Leith embargo delayed awaiting MUDFA completion. Section of Princes St between the Mound and Waverley bridge progressing.
Section 1d Princes Street West to Haymarket	Princes Street works re-started 23Mar09 and continue between South Charlotte Street and the Mound. Section between South Charlotte St and Lothian Rd commenced week 4 of Period 05. Tram Works in Haymarket are dependent on MUDFA completion in Dec.09.
Section 2 Haymarket to Roseburn Junction	Haymarket Viaduct temporary works design resolved although contractor has not yet mobilised following Christmas 2008 break. Verity House access rd complete 23rd May.  All required consents in place for track installation.  Commercial issues holding-up commencement of works.
Section 5a Roseburn Junction to Balgreen Road	Temporary & permanent works re-design along with commercial resolution delaying various structures.  All required consents in place for track installation.
Section 5b Balgreen Road to Edinburgh Park Central	Temporary & permanent works re-design along with commercial resolution delaying various structures. Only progress in period is against \$27 Edinburgh Park viaduct which is now 74% complete.  All required consents in place for track installation. Carricknowe Bridge re start on Period 7.
Section 5c Edinburgh Park Central to Gogarburn	A8 Underpass recommenced during P13 but has since been on hold due to discovery of obstructions & refusal of piles. Design solution to combine Phases 1 & 2 now in place. Traffic diversion completed. Delayed awaiting BSC to resolve construction methodology issues with telecoms companies.
Section 6 Gogar Depot	Access road commenced .Building Foundations commenced
Section 7a Gogarburn to Edinburgh Airport	Gogarburn underbridge 64% complete. S30 Culvert No.1 and S34 Culvert No.3 change issues resolved and recommenced Period 6.

#### 2.6 Tram construction (Tramco)

Good progress continues to be made with the progress of deliverables against the schedule. Fabrication has commenced on the body shell for the 10th tram. Internal fit out and wiring continues for Trams 2 & 3 and the first tram has started Factory Acceptance Tests. A contingency is being investigated for storage and testing should the first trams be complete before the depot is ready to receive them.

The CAF contract programme is incorporated in the Master Tram Project Programme and the current position indicates the following confirmed milestone dates:

- 1<sup>st</sup> Tram delivery 09-Apr-10 5<sup>th</sup> Tram delivery 10-May-10 27<sup>th</sup> Tram delivery 17-Jan-11

#### 2.7 Preparing for Operations

tie has launched a new workstream know as 'Preparing for Operations'. This is a joint initiative with TEL and is focussed on getting ready for the Testing & Commissioning phases as well as the operational introduction of trams. Closely related to this, tie has recently notified Transdev of its intent to exercise its option to conclude the existing contractual arrangements as allowed for in the DPOFA contract. Discussions about an ongoing relationship are underway.

The process for acceptance of the Edinburgh Tram Project is designed to ensure that it is delivered in an acceptably safe, compliant and efficient manner. The objectives of the process are to ensure that the system performance, integrity, reliability, availability and safety are rigorously tested and that throughout all stages of the delivery process the many sub-systems and the overall system are validated and verified against the requirements and applicable standards. The detailed sequence and scope of testing and commissioning prior to systems Acceptance testing is to be programmed out and proposed by BSC in further detail in the next year.

To achieve these objectives there is a layered approach to the overall testing and commissioning as laid out in the table below.

What	Who	Status
Design	BSC (SDS) / tie	Underway.
assurance		
Quality	INFRACO	11 of the 37 BSC Inspections and Test Plans have been revised by BSC incorporating <b>tie</b> comments. <b>tie</b> hase requested an update of the status of the remaining ITP's.
Systems Safety	INFRACO / Independent Competent Person(ICP) / TEL / Transdev	Started - Safety verification plan in place and process of verification already underway. The ICP has been appointed and has started his verification process.
Performance*	INFRACO / Transdev / TEL	Requirements set out in the employer's requirements and will be tested following completion of each section of the network.

BSC have produced Inspection and Test Plans (ITP's) for the current set of construction works, however they have not yet produced a consolidated Test and Commissioning Plan. Constituent elements are available from CAF, the tram manufacturer, the Operator and an overall framework from TEL exists to cover the activities.

It is intended over the next three periods to obtain collective engagement on testing and commissioning, and agreement to the formation of a multi-organisation, multi-disciplinary test coordination team.

Testing undertaken and witnessed in the period has included the A8 piles at Gogar and the first tram set of body shells, (weld quality, dimensional tolerances and water tightness).

\*Pre-system acceptance testing includes both Factory Acceptance Tests(FATs), site Acceptance Tests (SATs), Sub-system integration tests (SITs) and System commissioning Tests(SCTs). Once a section of the network is physically completed and the SITs are satisfactorily completed then the formal acceptance process requires BSC to carry out and pass a series of systems Acceptance Tests in order to achieve Sectional Completion. These are shown in the table below.

Test	Test Name	Test Description	Programme
T1	Post	To demonstrate that each Section	Post Commissioning Test

	Commissioning Test	of the ETN in sequence is able to perform in an acceptably safe manner and deliver the required run	immediately follows successful commissioning of each section and is
		times. This is the gateway test to driver training.	required for progressing to Driver Training.
T2	Performance Test 1	After Phase 1a is complete and has passed Test T1, this test demonstrates that Phase 1a is able to perform satisfactorily before starting the three-month Shadow Running period. This is the gateway test to shadow running.	Performance Test 1 will immediately precede the Shadow Running period and is a requirement for progressing to this phase of the programme.
ТЗ	Pre-operations Test	The test covers a seven day period during the latter part of the Shadow Running phase of the programme using the initial 6/12 tph service timetable.	Pre-operations Test shall immediately precede the Service Commencement Date.
T4	Network Performance Test	The Test is carried out over a 28 day period in Passenger Service to establish that the ETN can reliably operate.	To be completed within twelve months of the Service Commencement Date.
T5	Network Reliability Test	Reliability Testing of key subsystems in Passenger Service.	To be completed within twelve months of the Service Commencement Date.

This whole process can be described by the following flowchart.

Stage	dew Chart	Tests	D+== totion
8	Passenger Service	Network Performance [T4] and Reliability Test (T5)	The date upon which the Edinburgh Tram Network starts in public service
	Î		PASSENGER SERVICE COMMENCEMENT
7	Shadow Running	Pre-Operations Test (T3)	The period of Tram operations that simulates full public service operation including running to published time table and calling / welling at Tramstops before the ETN enters public service
		Performance Test 1 (T2)	ENERGISATION OF COMPLETED PHASE OF THE ETN
6	Test Running & Driver Familiarisation		The period post-ETN commissioning used to complete driver and control room staff training and gain confidence to enter Shadow Running Phase
		Post-Commissioning Test (T1)	
5	Commissioning	System Integration Test	All subsystems, including the tram, are fully integrated to form the ETN and are tested to demonstrate that they work together successfully and meet the Employer's Requirements
			ENERGISATION OF SECTION OF THE ETN
4	Set to Work Tests	Srte Tests	The point at which subsystems have been installed and then tested to prove they meet their requirements with both Type tests and Site Acceptance tests
			LIMITED ENERGISATION OF PART OF THE ETN
3	Installation / Construction		Once the subsystem has successfully passed Factory Acceptance Tests installation / construction at site will take place and as appropriate a delivery test undertaken.
2	Factory Acceptance Tests	FAT	Thorough demonstrable testing of the subsystem at Infraco's premises
	Î		
1	Build / Manufacture		Manufacture and assembly of the System by the Infraco
	1		
D	Design		The scope of the works designed through Approval in Principle and Approved for Construction & Manufacturing Drawings; with associated verification and validation test and integration plans complete

### 2.8 Interface with other projects

The following table identifies the other projects ongoing within the city which may impact on the Tram project. This is reviewed on an ongoing basis both internally and in conjunction with TS to identify conflicts and mitigations. The most significant interface of concern is the Gogar interchange. **tie** has instructed the design change and this is underway. The St James centre re-development remains as amber as commencement of this project is now indicated towards the completion of the Tramworks and therefore interfaces should diminish.

External Projects	Promoter	Project Description	Potential Conflict					
GREEN - No conflict anticipated but being monitored. AMBES - Managing any conflict. RED - Conflict which causes programme concern / unknown effect on tram programme.			Tram Contract Dates		Project Dates			
				Start	Finish	Start	Finish	Comments
New Hotel adjacent Ocean Terminal	Ocean Points Development Limited	New build hotel	Potential conflict with Infraco dependent on timescales. To be monitored.	Sep-09	Apr-12	ТВА	ТВА	To be monitored.
Former Bus & Tram Depot nr Shrub Place	Fraser & Neave	Transformation of former Tram and Bus Depot into 121 room serviced apartments.	None identified. Dependent on timescales.	Now		ТВА	ТВА	To be monitored. Utility completion by end Aug09. Potential TM interface dependent on Infraco proposals
Shrubhill House	Unite	Transformation of former council social work headquarters into 200 bed hotel	None identified. Dependent on timescales.	Now		ТВА	ТВА	Awaits planning consent. To be monitored. Utility completion by end Aug09. Potential TM interface dependent on Infraco proposals
Baxter Place	Fitzpatrick Hotel	Conversion of existing building	Proposal to divert existing utilities	NOW		IDA	IDA	ргорозаіз
Development	Group	adjacent Greenside Lane and with frontage onto Leith Street	through basement of building. Also potential TM interface issues with Picardy Place construction.	Oct-09	Oct-11	ТВА	Dec-10	
St.James Centre Redevelopment	CEC / Henderson Global	Redevelopment of existing shopping centre.	Interface with Picardy Place junction re-construction and Cathedral Lane sub-station	Mar-10	Jan-12	2011	2016	Downgraded from red to amber as commencement of this project is now indicated towards the completion of Tramworks and therefore interfaces should diminish.

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National Portrait Gallery		Major building construction and refurbishment. The renovation of the external facades including the renovation of the external masonry, the overhauling of the existing windows, the renewal of the existing rooflights and roof covering, the renovation of the existing rainwater pipes and the moving some of the existing window bars to the inside. Additionally, it is proposed that an external ramp is formed to the front main entrance to allow disabled access.	Interface with Infraco works on St Andrew Street / York Place	Mar-10	Oct-11	Oct-09	Nov-11	Decant complete June 09 Lane closures (west bound) on Queen street, to allow space for a large hiab to be positioned full time outside the premises (October 2009 onwards). Also two, three week periods in January & February 2010, when further closures were required to allow a large crane in to remove/reinstate the roof. Conflict with the Tram traffic management team looking at making the section of Queen Street, between North St David Street and Broughton Street one-way (part of the Leith Street, Princes Street, South St David Street, North St David Street
St.Andrew Square Development	CEC	Demolition of existing buildings bordering South Side St. Andrew Square, South St David Street and Meuse Lane	Infraco Programme	Jan-10	Mar-10	ТВА	ТВА	Infraco activities will not commence until Jan 2010
Waverley Steps	Transport Scotland	Refurbishment of existing Waverley Steps with inclusion of new escalators and elavators	PRINCES STREET Traffic management issues when Infraco in Princes Street should this project require deliveries, craneage or Traffic management in same time period	Feb-09	Nov-09	Jun-10	May-12	Under the revised Waverley Steps programme received 7/5/9 Tramworks will be complete in this area prior to Waverley Steps works progressing. Downgraded from Amber to green May09. PLI (Public Liability Inquiry) held and refreshed

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								programme due in Period 6
Waverley Steps	Transport Scotland	Refurbishment of existing Waverley Steps with inclusion of new escalators and elavators	ST.ANDREW STREET Traffic management issues when Infraco in Princes Street should this project require deliveries, craneage or Traffic management in same time period	Jan-10	Mar-10	Jun-10	May-12	Under the revised Waverley Steps programme received 7/5/9 Tramworks will be complete in this area prior to Waverley Steps works progressing. Downgraded from Amber to green May09. PLI (Public Liability Inquiry) held and refreshed programme due in Period 6
Waverley Station Re- roofing	Transport Scotland	New roof and general upgrade to station interior	May be Traffic Management issues	Jan-10	Mar-10	Apr-10	Apr-14	Although the tram main construction works will be complete by end Mar-10 this area will be re-visited in Q4 2010 for OHL installation.
NATO Conference		date of the conference is Friday 13th November 2009 to Tuesday 17th November 2009 (inclusive) and it will be held at the EICC, Morrison Street, Edinburgh. 600+ delegates expected	Potential Interface with Infraco works at Haymarket junction	Jan-10	Nov-10	13- Nov-09	17-Nov- 09	Haymarket junction re- construction is 6 phases although not now expected to commence until Jan.2010
Princes Street Hotel	Deramore Property Group	Redevelopment of existing buildings at 121 - 123 Princes Street to 80,000 square feet 3 floor of retail and 100 bedroom hotel	Direct clash with Infraco programmed works in Princes Street during blockade	Mar-09	Nov-09	Early 2009	Jun-11	Infraco works progressing with no Interface problems

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Princes Street Property	asediqbal consulting	Site clearance and redevelopment at 125a Princes Street on all 3 floors to convert to an EasyHotel	Access through BSC worksite. Internal strip-down ongoing and access required for debris removal.	Feb-09	Nov-09	ТВА	ТВА	Infraco works progressing with no Interface problems
New Hotel in Haymarket	Tiger Developments	New build hotel	Utility diversions continue until Jul.2009 Potential Interface with Infraco works at Haymarket junction commencing Jul.2009	Jan-10	Sep-11	ТВА	2012	Haymarket junction re- construction is 6 phases although not now expected to commence until Jan.2010. Meeting held with Tiger Developments, Capita Simmons (Project Managers), Dunne Construction (enabling contractor) and CEC on Friday 22nd August 08. Outcome is that risk is greatly diminished.
Haymarket Interchange	First Scotrail	Capacity Increase Project - Installation of new lifts and walkways from Haymarket Terrace	Utility diversions continue until late June 2009 Potential Interface with Infraco works at Haymarket junction commencing July 2009	Jan-10	Sep-11	Dec-11	Dec-12	NR/Edinburgh Tram Project Delivery Group Meeting 11 Buchanan House, Edinburgh 08 April 2009 ScotRail are required under their franchise to install lifts due to the uncertainty over the integrated scheme at Haymarket. ScotRail will progress but it will be at the end of their Franchise 2011/12.

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Haymarket Station Re- furbishment	Network Rail/Scotrail	Main Building refurbishment works	Any external works could conflict with TM for either or both MUDFA and Infraco and could conflict with Infraco construction works. Bridge to be installed from Haymarket terrace to Platform 0 to comply with DDA	Jan-10	Sep-11	Aug-09	Jan-10	May Gurney programme recived during Aug09. No conflicts expected. TM requirements being monitored. Remaining utility works are to the east of the station/haymarket junction. Infraco works not expected to commence until Jan 2010.
Haymarket Station	First Scotrail	Installation of new lifts and walkways from Haymarket Terrace	Construction of Haymarket viaduct	Jan-10	Sep-11	Jan-10	ТВА	
Haymarket Terrace	DTZ Surveyors	Common Repairs to buildings at 2-4-6-8-68 & 74 Haymarket Terrace	Scaffolding and external repairs	Jan-10	May- 11	May- 09	ASAP	Scaffold erected and building repairs underway between Infraco TM phases.
Airdrie - Bathgate	Transport Scotland	New track installation	Tram possessions mainly "piggy- backed" on A2B possessions which could be altered / cancelled.	ТВА	ТВА	Mar-09	Mar-10	Various possessions and RotR workings
RBS Tramstop - Gogarburn	RBS	Design by RBS - Build by Infraco	Design and consents not in place in a timely manner to allow Infraco to build to programme	Nov-10	Mar-11	ТВА	ТВА	Design and approvals progressing to programme. Confirmed that this will now be a generic tram stop design
Gogar Surface Station	Transport Scotland	New station to east of Gogar Dapor	Approvate and Contents	Aug-08	Oct-11	Oct-09	Mar-11	SDS Revised design information (v48) received early Period 6. Gogar Interchange Programme to be updated and re-issued.

#### Colour code

Green	No conflict anticipated but being monitored
Amber	Managing any conflict
Field	Conflict which causes programme concern / unknown effect on tram programme

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This has been sent to TS for their input for projects they are sponsoring and will continue to be reviewed by **tie** to identify any potential impacts on the Tram programme as early as possible in order to manage them. A review of the TS projects was carried out mid August 2009 with TS. A further session will be arranged during Period 07.

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#### 2.9 Other

#### Gogar Surface Station

At the end of Period 6 **tie** the baselined design phase is 15% complete compared with 19% planned. The cost of work done is £130k compared with £170k planned. The forecast outturn remains unaffected.

The impact of Gogar Interchange on **tie**'s Authorised Undertaker role for EARL needs to be regularised to ensure that any potential conflict of interest is addressed. This is being pursued directly with Transport Scotland.

#### Programme & Milestones

Activity	Baseline Planned	Latest forecast
Complete prelim design of additional tram stop	10/8/09	18/9/09
Submit Structures Technical Approval application	19/11/09	8/1/10
Submit Prior Approval application	26/11/09	15/1/10
Receive Prior Approval	5/2/10	12/3/10
Receive Structures Technical Approval	5/2/10	8/3/10
IFC	26/2/10	22/3/10

**tie** is currently forecasting that there will be 24 calendar days slippage to the IFC drawings for the tram elements of the Gogar Interchange. There are opportunities to improve on the existing design programme. **tie** is investigating these in Period 7 with BSC & SDS.

#### Progress on specific activities

Following confirmation of Network Rail's preferred scheme at the end of Period 5, and the subsequent construction meeting held with TS, CEC, NR and tie, work has progressed in earnest on several aspects of the design. In particular:

- sighting study has been completed and has been issued;
- SDS topographical survey has been completed and has been issued;
- work has been started on design of the canopy over the roof of the tramstop meetings have taken place between SDS's architect and the manufacturer of the EFTE material recommended by Mott MacDonald;
- work has started on the design of the Northern Retaining Wall and the completion of the topo survey will allow this to progress;
- revised landscaping plan has been received by SDS from Mott MacDonald.

SDS has confirmed that there is now no major item of information holding up design. SDS is awaiting results of the Mott MacDonald topo survey but these are helpful rather than essential at this stage.

#### Integrated Programme Development

**tie** will update its programme for Gogar Interchange by 22/9 to incorporate the updated Infraco design programme. This programme will then be adjusted together with TS & NR to produce an agreed integrated programme for the Gogar Interchange.

#### Overall design co-ordination

Project management meetings have continued between **tie**, TS and NR and a further design workshop took place on 19 August. Network Rail is arranging a further workshop for Period 7 as well as regular contact between designers.

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#### Cost reporting

Mott MacDonald has provided revised plans and sections and tie will produce an update of the budget cost for discussion with Transport Scotland in Period 7 in line with provision of revised estimates by Network Rail. This reflects the slower progress made by SDS as the optioneering exercise was being completed.

#### Temporary traffic regulation orders (TTROs)

- Weekly visual summary being produced of all tram traffic management throughout the city.
- No major traffic switches implemented in the period.
- Traffic management planning ongoing for Princes St Phase 3, Haymarket and Picardy Place.
- It is looking increasingly likely that buses will be returning to Princes Street at the end of November – this will be confirmed by CEC on 29 September 2009. Traffic Management plans for this major traffic switch are currently under development.

#### Traffic regulation orders (TROs)

- A TRO programme is in place to ensure that the first order TRO 1, which will allow for operation of the tram system, envisages the order being made in July 2010.
- The informal consultation process for this has been completed and BSC have incorporated minor design revisions into the final design. tie received a set of TRO drawings on 19 August 2009.
- Following TPB and pending CEC approval on 22 September, it is expected that the statutory consultation process to commence in early October 2009.

#### Network Rail

- INFRACO has now delivered its EMC Management Plan and EMC Strategy for NR infrastructure assets and established the scope for the immunisation works. A programme for these works is being developed with INFRACO for the Immunisation solution part. Now they have sent it for tender to Volker Rail and Atkins Rail. They are expecting a response during Period 07. They should include the programme of those works for the immunisation solution for NR infrastructure.
- INFRACO will be developing the full assurance case for NR acceptance. Preliminary assurance
  case to enable traction power testing and commissioning has been completed. Further assurance
  will be provided up to, and including, bringing into service;
- The contractor has submitted for ROTR possessions according to the look-ahead programme.

#### Third party interfaces

- NR the Bridge Agreements are not yet concluded. There is an outstanding issue on indemnities to close out. CEC are taking this matter up directly with TS. The Operating Agreement draft with NR is currently on hold pending resolution of the same indemnities issue that is concerning CEC with the Bridge Agreement. Both matters are with CEC for resolution.
- Forth Ports Forth Ports have introduced a new clause into the Agreement drafting which seeks to link payment for the Tram works with the Planning Approval for the Leith Harbour Development, this is unacceptable to CEC and the matter has been raised for resolution at a senior level.
- Haymarket car park compensation tie have agreed compensation with NR. tie continue to discuss with TS the additional compensation payable to First ScotRail, as a result of the extension of the FSR franchise from Nov 2011 to Nov 2014. It is believed that this should have been allowed for in the franchise extension discussions between TS and FSR. tie plan to take the matter up directly with TS;
- Building fixings the process of lodging court submissions has commenced with 9 applications lodged in the period. The building fixing programme will commence in Spring 2010
- Interfaces are being managed to ensure that the SRU accommodation works and events are cohesive. tie have now agreed approach to the design and construction of the works with SRU.
- Network rail and CEC have signed a side agreement which addresses the concerns tie had over possible conflicts with tram construction works. As a result tie have withdrawn their objection to the TAWS Order.

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#### BAA - Burnside Road (BAA) Raynesway Construction.

- Works commenced on 10<sup>th</sup> August 09 and are currently on programme.
- Enabling works at the Balfour Beatty Compound are complete.
- Utility diversion on programme, including the HV diversion completed early. Piling works commenced on 3<sup>rd</sup> September 09 however access problems, partly resulting from the heavy rain, and mechanical problems have delayed progress. The design of the piles and the abutments was changed due to the final bridge design, requiring additional piles and tie-beams. The Contractor is assessing the impact on the programme, however, this is not anticipated to affect the Completion Date.
- The Coach Park and taxi rank barriers and the pay station were successfully relocated but with 1 week delay to allow re-assessment of the control system following difficulties during the cabling works. This has not affected the Critical Path. The East End Service Yard barrier installation has been postponed to w/c 14<sup>th</sup> September 09. This is currently a non-critical activity and is linked to the CCTV camera relocation.
- Generally planned Completion Date is maintained for January 2010.

#### Section 7B Utilities

- MUD works The MUD contractor (Farrans) continues on site
- The installation of the gas main is now 95% complete requiring tie-ins at both ends.
- The multi-utility trench is 75% installed and backfilled.
- The foul main relay under the walkway is complete.
- Approximately 100m of the foul main remains to be laid at the south end of the multi-track at a different invert to the gas main. We have been unable to locate the existing foul main in this area and have prepared a plan for extending the diversion to the existing pumping station approximately 25m away across Burnside Road.
- Jointing of BAA HV cables completed as planned.
- Planned Completion Date of 2<sup>nd</sup> October 09 is at risk due to the impact of the original Kier relay and lower productivity than planned.

### Hilton Car Park & Phase 1

INFRACO - No works have commenced. Reviewable Tram Works Design (RTWD) Issued. BAA response received. Formal DRP started.

#### Section 1 Utilities

Invitation to Tender documents (ITT) sent to 5 companies (Farrans, Morrisons, Raynesway, Clancy Docwra and UUPLC). Tenders returned on 11-Sept-09.

### Fast link modifications (Front Line)

- Works completed.
- BT manhole is to be built after the Scottish Power cable has been diverted

#### Murrayfield Pitches (Souters)

Final accounts now agreed. Subject to works being carried out during maintenance and establishment period.

#### Archaeological works at Constitution Street (Frontline):

- The archaeological works have now recovered in excess of 280 skeletons and this figure will rise beyond the 300 mark prior to the end of the works.
- Reinstatement of the next area approximately 20 metres long commenced
- Because of the large number of skeletons found and potential post excavation works the budget for this work is under threat. This is being reviewed and will be reported in future reports once the scale of post excavation works including carbon dating, reporting and re-internment is scoped.

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# 3 Headline cost report

### 3.1 Current financial year

	FY 09/10		FY 09/10 FY 09/10		- "	FY09/10		COWD	Costs	Total		
	COWD Period			COWD Year To Date		COWD Full Year Forecast			To Date	To Go	AFC	
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance	Actual	Forecast	Forecast
Total Project COWD	7.197	13.280	6.083	47.807	54.158	6.350	119.728	150.072	-30.343	278.827	248.272	527.099
Other Funding	0.594	1.097	-0.502	3.947	4.472	-0.524	9.886	12.391	-2.505	23.022	17.993	41.015
Demand on TS	6.603	12.184	-5.581	43.860	49.686	-5.826	109.842	137.680	-27.838	255.805	230.279	486.084

- The lack of an agreed commercial programme and the decision to apply formal contractual measures to resolve outstanding issues with the BSC consortium will present potential further risks in relation to the attribution of additional costs and delay to completion of the project. tie Ltd has taken extensive legal and technical advice, including Counsel's opinion, and is confident of its position on the key matters in dispute. However, given the nature of the process and the complexity of certain issues, it is unreasonable to expect that all adjudication outcomes will be awarded in favour of tie Ltd and it will also be open to the BSC consortium to use the contract formally to pursue their objectives.
- We continue in this report to reflect an outturn estimate of £527.1m. However, given the commercial uncertainties with the Infraco and continuing delays to the project it is now considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m. Until the key issues are resolved through the contractual and legal process, it will not be possible to forecast accurately a revised budget outturn. It is also not possible at the present time to predict the conclusions of reviews of contingency programme delivery options, including possible additional sources of funding.
- The contract with the BSC consortium prescribes a timetable for resolution of contractual disputes and it is expected that the budget and programme implications will become increasingly clearer during the remainder of 2009.
- Regular briefings will be provided to both CEC and Transport Scotland to keep them updated on progress and implications for the project programme and finances of all the above matters.
- The budget for Phase 1a in 2009/10 is £150.1m which has been produced linking the tie rebaselined programme to Infraco construction milestones. tie are now escalating all key issues to Dispute Resolution Procedure (DRP) and other contractual measures following the failure of mediation to provide and acceptable outcome. It is anticipated that a fully agreed programme will not be made available and/ or agreed by the Infraco contractor until key commercial issues have been resolved.
- In order to ensure that key works are progressed tie have instructed the Infraco to begin works at Carrick Knowe and Russell Road via clause 80/15 letters. A rate of progress letter (clause 61) has also been raised for Gogar.
- The outturn figure for 2009/10 of £119.7m has been fully re-assessed in period 6 in-line with tie's latest internal view of programme coupled with Project Managers informed view of Infraco deliverables in 2009/10. The reduction in forecast this month is in-line with the high-side sensitivity flagged in the period 5 TS report. Note: key assumptions to the £119.7m reforecast are detailed in the Executive Summary Section of this report.
- In addition to the forecast phase 1a (£119.7m) 2009/10 costs, the budget also includes costs of £3.2m which relate to the postponement of Phase 1b Infraco construction contract. A payment of £3.2m was made to the Infraco Contractor in August relating to phase 1b costs.
- Funding available from TS for the project in 2009/10 is £149m. The TS share of this year's updated forecast (£122.9m) is £112.8m, giving available headroom of £36.2m.

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Actual YTD P6 & forecast P7-P13 FY09/10

£m	YTD	Forecast	Total FY09/10
	P6	P7 - P13,09/10	
Infrastructure and vehicles	32.0	52.9	84.9
Utilities diversions	7.5	0.8	8.3
Design	1.2	1.3	2.5
Land and compensation	0.7	0.9	1.6
Resources and insurance	6.4	8.5	15.0
Base costs	47.8	64.4	112.2
Risk allowance	-0.0	7.5	7.5
Total Phase 1a	47.8	71.9	119.7

- Phase 1a COWD to Period 6 is £47.8m (Period 5 is £40.3m) against budget £54.2m. The main drivers for the -£6.4m variance are: the timing of Infraco works costs forecast in 2009/10 offset by MUDFA costs incurred over the original plan.
- Tramco production activity is running two months ahead of schedule; this is reflected in the Tramco construction works forecast profile. It should be noted that the Tramco forecast has been amended with the release of the advanced payment now being smoothed periodically rather than quarterly to avoid 'spikes' in the cash application.
- As previously reported and agreed with CEC and TS, initial milestones under the Infraco and Tramco contracts in the aggregate amount of £24.2m, in respect of advance material purchases, have been classified as prepayments. These will be reclassified as expenditure against funding in the periods when the related materials are delivered to site and incorporated in the works. The release will occur on the achievement of trackwork and structures milestones in 2009/10 and future years.

#### 3.2 Current financial year profile

Profile for FY09/10 - Phase 1a only

£m	Q1	Q2	Q3	Q4	Total FY09/10
	(p1-3)	(p4-6)	(p7-10)	(p11-13)	
Infrastructure and vehicles	15.8	16.2	31.7	21.2	84.9
Utilities diversions	3.2	4.3	2.1	-1.3	8.3
Design	0.7	0.4	0.7	0.6	2.5
Land and compensation	0.6	0.1	8.0	0.0	1.6
Resources and insurance	2.9	3.5	5.0	3.6	15.0
Base costs	23.2	24.6	40.3	24.2	112.2
Risk allowance	0.0	-0.0	4.4	3.1	7.5
Total Phase 1a	23.2	24.6	44.6	27.3	119.7

- A full reforecast of the Infraco 2009/10 cost profile was produced in period 6 in lieu of tie receiving any updated agreed programme from the Infraco contractor. The 2009/10 reforecast has been informed by linking the latest tie programme to Infraco constructions milestones and taking Project Managers best view of what is likely to be achieved in the year. The realigned base costs and risk have then been linked against this programme; and
- The latest forecast for 2009/10 shows base cost of £112.2m and risk £7.5m, giving a total phase 1a cost of £119.7m. Outturn has been reduced by (-£30.4m) from period 5 to period 6, with movements arising mainly as a result of the re-assessment of Infraco construction milestone achievement.
- The cost profile above shows a ramp-up in activity throughout 2009/10, with base costs increasing from £23.2m in Q1 to a peak of £40.3m in Q3. This reflects the anticipated shift in Infraco milestone activity from Q1 to Q3.
- Note: Utilities diversions -£1.3m forecast in Q4 relates to final betterment elements forecast against utilities providers.

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### 3.3 Total project anticipated forecast cost

Re-baselined Phase 1a AFC and profiling

£m	Cum	Actual	FY	FY	FY	AFC
	FY07/08	08/09	09/10	10/11	11/12	
Infrastructure and vehicles	30.7	45.4	84.9	102.6	34.3	297.8
Utili <b>tie</b> s diversions	18.4	33.4	8.3	0.0	0.0	60.1
Design	21.4	4.7	2.5	1.1	0.1	29.8
Land and compensation	16.8	1.7	1.6	0.1	0.8	21.0
Resources and insurance	42.7	15.8	15.0	10.6	9.8	93.8
Base costs	130.0	101.0	112.2	114.3	44.9	502.5
Risk Allowance	0.0	0.0	7.5	9.6	7.5	24.6
Total Phase 1a	130.0	101.0	119.7	123.9	52.5	527.1
Phase 1b postponement	3.0	0.0	3.2	0.0	0.0	6.2
Total Phase 1a and Phase 1b	133.1	101.0	122.9	123.9	52.5	533.3

- The table above reflects the base costs and risks aligned to the **tie** re-baselined programme (Feb-12), and is informed by the re-alignment of the Infraco milestones schedule for 2009/10 inline with the latest live programme and Project Management assessment of deliverables. The AFC for Phase 1a above includes an <u>unapproved</u> increase of £15.1m to the project risk allowance. The <u>approved</u> cost estimate for delivery of Phase1a of the project remains at £512m. The phasing of the £527.1m has been updated in period 6 by **tie**, and will be further updated when there is an updated agreed programme with the Infraco contractor.
- The latest forecast view includes £3.2m of costs relating to Phase 1b which crystallised as contractually payable to BSC due to the postponement of Phase 1b (this will require to be covered by current funding). Coupled with the re-baselined forecast, there is £11.7m of funding headroom within the £545m total funding available.

# 4 Time schedule report

### 4.1 Report against key milestones

In advance of developing agreement with BSC, tie has developed an <u>unapproved</u> recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. A completely unmitigated programme <u>as a control scenario only has also been produced</u> which shows a date of 17 Oct 2012. However, the live programme has been used to generate the milestone data below and this is based on all current information fed into the master programme. This indicates an open for revenue service date of late October 2012.

(The agreed baseline programme reference for this project is that at Financial Close leading to revenue service in July 2011.)

Milestones	Baseline programme date	Actual / current forecast date live
Approval of DFBC by CEC	21 Dec 06A	21 Dec 06A
MUDFA – commencement of utility diversions	02 Apr 07A	02 Apr 07A
TRO process commences	14Dec07A	10-Dec-07A
Approval of FBC by TS – approval and funding for INFRACO / Tramco	09 Jan 08	Dec 07A
Princes Street closed	03-Feb-09	22-Feb-09A
Tramco / INFRACO – award following CEC / TS approval and cooling off period and SDS novation.	28 Jan 08	14 May 08A
Construction commences	14-Apr-08	14-May-08A
First track installation commences – on street	03-Nov-08	Jun 2009A
Carrick Knowe Bridge commences	21-Aug-08	19-Aug-08A
A8 underpass commences	08-Aug-08	28-Aug-08A
Haymarket viaduct commences	08-May-08	01-Sep-08A
Edinburgh Park viaduct commences	06-Aug-08	01-Sep-08A
Tram mock-up delivered	Oct 2008	Nov 2008A
Demolition of Wanderers clubhouse	25-Aug-08	28-Sep-09
Edinburgh Park viaduct complete	24-May-09	12-Dec-09
Princes Street re-opened	01-Aug-09	25-Nov-09
NR immunisation complete	Nov 2009	Dec 2009
Utilities works complete	Nov 2008	Dec 2009
All demolition work complete	22-Aug-08	04-Mar-10
All Issue for Construction (IFC) drawings delivered (inc Gogar interchange design)	21-Jan-09	22-Mar-10
Haymarket viaduct complete	08-Dec-08	19-Apr-10
All consents and approvals granted	18-May-09	Mar-10
Design assurance complete	20-Jan-09	Mar-10
1 <sup>st</sup> Tram delivered	09-Apr-10	09-Apr-10
Carrick Knowe bridge complete	11-May-09	24-May-10
A8 underpass complete	14-Jul-09	15-Jun-10
Roseburn viaduct commences	20-Jan-09	06-Aug-10
TRO process complete	01-Dec-09	Jun-10
Driver recruitment commences	July 2010	Oct-10
1 <sup>st</sup> OHL installed (Commence Section 6)	11-Dec-09	Dec-10
1 <sup>st</sup> section (other than depot) complete ready for energisation (2)	25-June-10	Mar-11
Commission Section 2 (Haymarket to Roseburn junction)	11-Jan-10	Mar-11
Final tram delivered	17-Jan-11	17-Jan-11
Driver training commences (depot only)	Dec-10	Jan-11

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Commission Section 6 (depot)	25-Mar-10	Jun-11
Roseburn viaduct complete	20-Apr-10	Jul-11
Test track complete	23-Apr-10	Oct-11
Commission Section 7 (Gogar to Edinburgh Airport)	25-June-10	Oct-11
Commission Section 1 (Newhaven to Haymarket)	11-Mar-11	May-12
Commission Section 5 (Roseburn junction to Gogar)	09-Nov-10	Apr-12
Driver training commences (excludes depot)	Nov 2010	May-12
System testing complete off street	09-Dec-10	May-12
Construction Line 1a complete	17-Jan-11	May-12
System testing complete on street	16-Feb-11	Jun-12
Letter of "no objection" from Independent Competent Person	17-Apr-11	Jun-12
to commence tram running		
Shadow running starts	18-Apr-11	Jul-12
Shadow running complete	July 2011	Oct-12
Letter of "no objection" from Independent Competent Person	July 2011	Oct-12
to commence revenue service		
Open for revenue service	July 2011	Oct-12

Guidance for Completion: Legend for colouring of Actual / forecast date text

 Green:
 Actual / forecast date is ahead or in line with baseline

 Yellow:
 Slight slippage – readily recoverable with action.

 Pink
 Significant slippage but expect recovery can be achieved

 Red:
 Notable / significant slippage – difficult to recover, even with action.

# 4.2 Key issues affecting schedule

Programme is one of the priorities of the PMP and a refresh of the key issues affecting schedule will be provided in future periods following engagement with BSC.

### 4.3 12-week look-ahead

Milestones	Actual / current forecast date
6 Depot Access Roads - Track & Stabling	17-Aug-09A
6 - Depot Building Foundations	01-Sep-09A
7 Gogar Culvert No.3	15-Sep-09A
7 Gogar Culvert No.1	21-Sep-09S
5B Trackworks Bankhead to Edinburgh Park Stn	21-Sep-09S
7 Gogarburn bridge beams	25-Aug-09A
1B Complete Utility diversions Foot of the Walk to Balfour Street	25-Sep-09F
5A Demolition of Wanderers Clubhouse	28-Sep-09S
5A Construct New Scotrail Carpark	28-Sep-09S
6 - Depot Building Steelwork	05-Oct-09S
1A3 Commence Temporary Platforms and Demolition Tower Place bridge	05-Oct-09S
7 Complete Utility diversions Ingliston Park and Ride to Airport	09-Oct-09F
2A S19 Haymarket viaduct re-commences	16-Oct-09S
1D Complete Road and Track works Lothian Rd junction	22-Oct-09F
5B Trackworks Balgreen Rd Saughton Road North	26-Oct-09S
5B Trackworks Saughton Rd to Bankhead (Guided Busway)	26-Oct-09S

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5B Trackworks Edinburgh Park Stn to Edinburgh Park Central	26-Oct-09S
1B Complete Utility diversions Balfour Street to McDonald Road	30-Oct-09F
2A Track works Haymarket to Roseburn Junction	30-Oct-09S
5A W3/W4 Russell Road retaining walls	02-Nov-09S
5B South Gyle Access bridge sub-structure	09-Nov-09S
5A S20 Russell Road bridge	20-Nov-09S
1C Complete Road & track installation on Princes Street*	25-Nov-09F
1D Complete Utility diversions Haymarket to Shandwick Place	23-Dec-09F
1C1 Complete Utility diversions McDonald Road to Picardy Place	21-Jan-10F
1C2 Complete Utility diversions Picardy Place to St Andrew Sq	08-Mar-10F

A = Actual date

S = Forecast Start Date

F = Forecast Finish date

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# 5 Risk and opportunity

## 5.1 Review of risk register

#### Summary

There were twelve risk reviews held in the period. Two items were close on the Infraco concerns register and 7 items added. There were sixteen risk draw downs approved in the period totaling £731,675. These are detailed later in this report. This leaves a risk and contingency balance of £8,780,397 (based upon the approved Project Risk Allowance at Financial Close).

#### Risk and Opportunity Reviews

The following reviews took place in the period:

Date	Format of review	Attendees	Comments
20/8/09	Review of Project Risk Allowance (QRA)	Project Risk Manager Infraco Director Infraco Construction Directors (x2) Infraco Commercial Mgr	Review of current risks within QRA and their allowance. Identification of new risks.
25/8/09	Change and Risk Review	Project Risk Manager Infraco QS Infraco Commercial Mgr	Review of current and proposed changes against risk allowance
2/9/09	Programme impact review on Infraco Concerns Register	Project Risk Manager Programme Manager	Review of programme impacts
7/9/09	Structures Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed
7/9/09	Roads and Drainage Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed
7/9/09	Signalling, Communication and Control (SCC) Risk Review	Project Risk Manager SCC Project Risk Manager	Risks and Treatment Plans Reviewed
7/9/09	Depot Risk Review	Project Risk Manager Project Risk Manager	Risks and Treatment Plans Reviewed
7/9/09	Network Rail	Project Risk Manager Project Risk Manager	Risks and Treatment Plans Reviewed
8/9/09	Mudfa Risk Review	Project Risk Manager Mudfa Construction Director	Risks and Treatment Plans Reviewed
8/9/09	High-level Infraco Risk Review	Project Risk Manager Infraco Director	Risks and Treatment Plans Reviewed
8/8/09	Princes Street Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed
9/9/09	Section 1A Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed

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#### Risk Register

The Primary Risk Register is attached at Appendix D. The Primary Risk Register contains those high impact risks which are impacting (or have the potential to impact) the project at this moment in time. In addition, the potential risks identified in regard to programme slippage are being reviewed periodically and will form part of the updated QRA. There are 43 risks in the risk register. The top five project risks are listed on the following pages.

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## Top 5 Risks - Period 6 2009/10

#### **Risk Description**

	RIS	Description								
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance Black	lag Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
343	General delay to programme with various causes e.g. failure	Delayte completion of project	Increased out-turn cost due to delay plus	S Bell	TORSE OF	DRP on programme management (EOT1)	Undefined	Undefined	30-Jul-09	S Bell
	to obtain approvals on time; parliamentary processes, contractor issues.		revenue loss			Liasen between tie/BSC programme managers	On Pr●gramme	On Programme	30-Dec-11	T Hickman
						Programme Management Panel process	On Pr∙gramme	On Programme	30-Dec 11	F McFadden
						Weekly tie/BSC commercial meetings	On Programme	On Programme	30-Dec-11	M Patersen
<b>1</b> 1077	Base Date Design Information to Issued For Constructions (BDDI-IFC). Lack of visibility of design changes between November 2007 and May 2008	·	pr∙gramme delay	S Bell		Establish a precess which will act as a contrel mechanism for design changes (If one exists already then ensure process is complied with)	Complete	Complete	30-Jun-09	T Glazebr <b>ee</b> k
						Intensive Mediation Marathon 29/6/09 to 6/7/09 to try and resolve issues.	Complete	Complete	30-Jun-09	S Bell
						Mediation resulted in no overall agreement on BDDI - IFC although it gave useful background information. Strategy paper to be presented to TPB on 29 July to seek approval for way forward including utilising necessary contract mechanisms (DRP, audit etc)	Complete	Complete	14-Aug-09	S Bell
						Resolution Strategy approved - 1st DRP to go 10th August, audit requests to BSC for information going w/c 3 8 09	Complete	Complete	10 Aug-09	S Bell
						Sixissues going through DRP process. Anticipated conclusion mid-November 09	N/A	On Programme	13-Nev-09	S Bell

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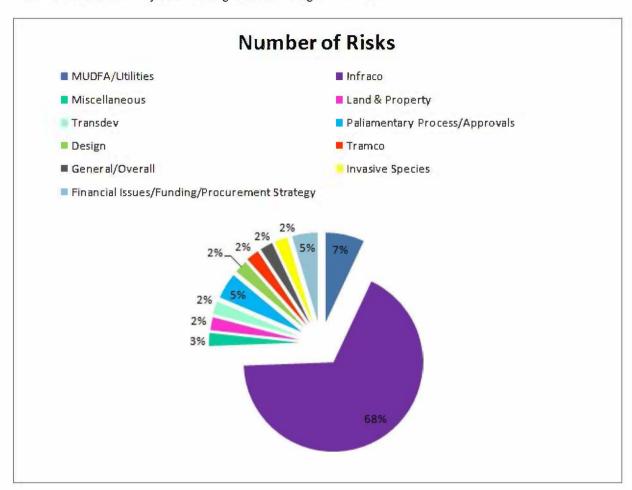
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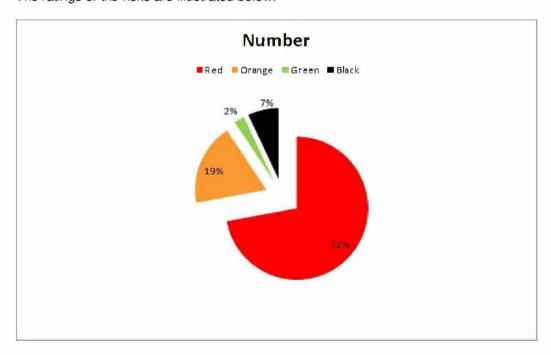
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<b>1</b> 090	Initial costs for Burnside Road works higher than anticipated	Cost of works at Burnside Road exceed that allowed in project budget.	Additional Cost	F McFadden	Costs being reviewed and tender documents sent out April 09.	C●mplete	Complete	3 0 Jun-09	F McFadden
					Tender docs issued based on scheme design information. Pretender estimate produced and final design ongoing. Delivery of tenders final outcome can be predicted	C∙mplete	Complete	30 Jul-09	F McFadden
1091		Excavation of soft,	Additional cest	F McFadden	D●naldsons to carry out surveys	C●mplete	Complete	30 Jul-09	C Neil
		Earthworks outline			Extent of soft ground being investigated. External specialist advice depleyed.	On Pr∙gramme		31-Dec-09	M Paters•n
<b>5</b> 1101	Unreasonable behaviour of BSC commercial management	Unrealistic estimates being submitted for	Pregramme delay while disputes regarding	F McFadden	Additional resource from TNT	C∙mplete	Complete	30 <mark>Jul-0</mark> 9	M Patersen
	Commercial management	potential changes	estimates are resolved		Agreed with BSC for independant evalutation to get benchmark	C●mplete	Complete	3 0 Jul-09	M Paters●n
					All estimates to be scrutinised by tie commercial team and, where apprepriate, challenge made to BSC. Additional resource (T&T) being used to check estimates to reduce delay.	On Programme		30-Dec-10	M Paters●n
1094		Roads throughout works require full depth reconstruction	Programme impact plus additional costs. £1.5m cap applies to only 4 areas.	F McFadden	Carry out surveys to confirm extent of reads requiring full depth recenstruction	Cemplete	Complete	30 Jun-09	C Neil
					Suite of options from surveys to be reviewed and agreement reached	On Prøgramme		31-Oct-09	M Paters●n

The risks within the Project Risk Register are categorised below.



The ratings of the risks are illustrated below.



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#### New risks and concerns

The Project Risk Manager, in conjunction with the relevant director, agrees which concerns are escalated to risks and are added to the Project Risk Register.

## Infraco

The following items were closed in the Infraco Concerns Register in the period.

Ued	N.	Hot description	
	Risk Cause	Hill ( min)	
C.	Number		
Section 1D	54 Utilities works are not complete on Princes Street	Clash between Tramworks and Utilities	Delay to programme, extension of time claim. Additional
Section ID	34 Offittes works are not complete on Finices Street	Clash between Harrworks and Othities	cost
Depot	69 Section 21 agreement required with SW as depot is being	Delay in obtaining section 21 agreement with SW	Delay to programme, extension of time claim. Additional
	built over existing sewer		costs.

The following items were added to the Infraco Concerns Register in the period.

Discipline	Risk description									
1100	Risk Cause Number	Risk Event	en o							
Section 5A	108	Presence of Japanese Knetweed behind the Viking preventing progress of Russell Rd retaining wall W4 contamination (oil plume) also problematic.								
Section 5	109	Presence of Giant Hogweed to be treated prior to progressing tramworks at Edinburgh Pk Central	Additional cost and delay							
Section 5C	110	Presence of live THUS and Easynet services adjace south half of retaining wall	ent to Additional cost and delay							
Section 1A	111	Delay to completion of utility diversions causes dela Infraco works	ay to Additional cost and delay							
Section 1A	112	Agreement with Forth Ports not yet in place with kni effect to Infraco works	nock-on Additional cost and delay							
Section 1A	113 Forth Ports and CEC unable to agree on of Road 8.	planning and layout Planning permission for Ocean Terminal/Tram Plaza Road 8 not yet in place	a and Additional cost and delay; Lost opportunity for TM while tramworks take place on Ocean Drive							
Section 1A	114 Road not delivered to adoptable standard	CEC refuse to adopt road.	Dealy to operation of tram							

The risks relating to Section 1A will be subject to further review in the form of a risk workshop to be held in Period 7.

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#### 5.2 Risk action plan for next three periods

The following treatment plans are due for completion in the next three periods.

							_	Next 3
Action Owner 🔻	Risk ID			Due 🔻	Active _	Complete -	Late	periods
			In conjunction with MUDFA, undertake trial excavations to					
			confirm locations of utilities and inform designer.					
	11024		All complete but section 1A1 and York Place to Picardy Place				27.1	21 10 1 7 21
A Hill	164	42	outstanding.	30/10/2009	Yes	No	No	Period 8
			In conjunction with MUDFA, undertake trial excavations to					
			confirm locations of utilities and inform designer.					
V			All complete but section 1A1 and York Place to Picardy Place					
A Hill	139		outstanding.	30/10/2009		No	No	Period 8
C Kerr	932	362	tie/TSS to undertake assurance review as necessary	30/10/2009	Yes	No	No	Period 8
			Engagement between tie and BSC at different levels.					
			Regular review of BSC management of third parties as per					
C Neil	1078		Employers Requirements.	31/10/2009		No	No	Period 8
D Burns	869		Length of Line 1a to be re-surveyed on regular basis	30/10/2009	-	No	No	Period 8
D Sharp	44		Fortnightly meetings of Approvals Task Force	30/10/2009	Yes	No	No	Period 8
D Sharp	279	634	Fortnightly meetings of Approvals Task Force	30/10/2009	Yes	No	No	Period 8
D Sharp	271	559	Assure the quality and timing of submissions	31/10/2009	Yes	No	No	Period 8
D Sharp	271	637	Fortnightly meetings of Approvals Task Force	31/10/2009	Yes	No	No	Period 8
			SDS to obtain consent for design in accordance with					
			programme requirements - SGN and Scottish Power.					
F McFadden	914	557	Complete with the exception of section 1A1	31/10/2009	Yes	No	No	Period 8
			SDS to obtain consent for design in accordance with					
			programme requirements - Scottish Water and all Telecoms.					
F McFadden	914	573	Complete with the exception of section 1A1	31/10/2009	Yes	No	No	Period 8
			Assess TM implications to minimise enabling works and					
G Barclay	1084	654	additional cost	31/10/2009	Yes	No	No	Period 8
		1	Liase with Scottish Power to agree and approve method of					
W Biggins	911	628	crossing tunnel	30/09/2009	Yes	No	No	Period 7
			Suite of options from surveys to be reviewed and agreement					
M Paterson	1094	673	reached	31/10/2009	Yes	No	No	Period 8
			TRO at the second state of					
S Clark	977	683	TRO strategy approved by board, discussion to be held with CEC head of transport to reduce risk of legal challenge.	31/10/2009	Ves	No	No	Period 8
T Glazebrook	932		Undertake regular liaison during Immunisation Works	30/10/2009		No	No	Period 8
Gidzebi ook	332		design development (attend progress meetings with NR	30/10/2003	163	140	140	er lou o
			contractor)					

### 5.3 Cost Quantative Risk Analysis

The Project Risk Allowance at financial close was £30,336,196. The Project Risk Allocation has reduced by £731,675 in the period. Total drawdowns to the end of Period 6 09/10 now total £21,555,799. Remaining risk balance based on the approved QRA is £8,780,397.

All existing risks, as well as those recently added, are being reviewed to ensure the QRA output is as accurate as is reasonably possible. It is accepted that the additional risks and increase in QRA output are currently <u>unapproved</u>. These are within the <u>unapproved</u> range in costs provided to TS on 26<sup>th</sup> May. **tie** will continue to report on the risk allocation at Financial Close until a new budget (with an updated QRA) is approved.

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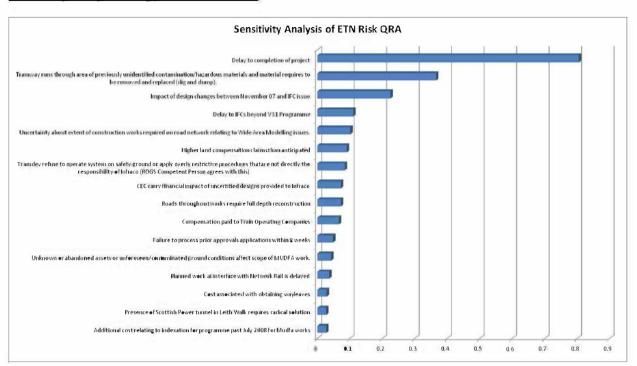
## Risk drawdown

The following table includes the approved drawdown applications on the project risk allocation in Period 6.

Description	Owner	Value (£)
Stage 1 Design Change - Balfour Street Crossing	Mike Paterson	8,796
Gogar Castle Tree Felling	Mike Paterson	1,162
Soil Investigation, Contaminated Material at Haymarket Depot	Mike Paterson	54,987
Replace MASS Barrier at St Andrews Square	Mike Paterson	22,897
Gogarburn Culverts S20,S31 and S34	Mike Paterson	13,368
Section 7 Additional West Embankment Starter Layer	Mike Paterson	36,616
Section 6 Depot Secondary Steelwork	Mike Paterson	2,356
Increase in Gross Amount of Change orders issued	Mike Paterson	341,179
Haymarket Internal retaining wall	Mike Paterson	14,208
Stage 1 Design Change - Water of Leith Bridge Sewer / Foundation Conflict	Mike Paterson	32,068
Stage 1 Design Change - Section 1D Haymarket Taxi Stance	Mike Paterson	26,215
Stage 1 Design Change - Design changes to Airport Kiosk	Mike Paterson	13,175
Stage 1 Design Change - Gyle Stop Cycleway widening	Mike Paterson	11,700
Stage 1 Design Change - NIL further future proofing	Mike Paterson	95,563
Stage 1 Design Change - Design of Canopy and boundary treatment at Airport Kiosk	Mike Paterson	49,982
Stage 1 Design Change - Existing Batter to North of Gogar Depot Drainage	Mike Paterson	7,403
	Total	£731,675

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#### Sensitivity analysis of approved cost QRA.



The above chart highlights those component risks which are correlated most closely with the overall risk allocation. These risks are the ones which, if changed in terms of probability or impact, would have the most significant effect on the final output.

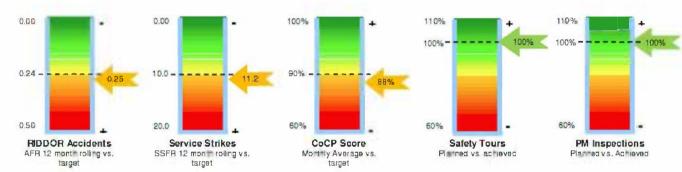
## 5.4 Schedule QRA

**tie** is currently working with the supplier of Active Risk Manager (ARM – the risk management software which **tie** uses) with a view to integrating Primavera and ARM so that a schedule risk analysis can be developed. A schedule QRA will be created following agreement of the recalibrated programme.

## 6 Health, safety, quality and environment

### 6.1 H&S accidents and incidents, near misses, other or initiatives

HS&E ACCIDENTS and INCIDENTS SUMMARY											
Total	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	ENV	RTA	МОР	AFR	SFR
Period	124,881	0	0	1	15	9	0	0	1	0.00	7.21
13 period rolling	1,592,205	1	3	30	225	178	3	16	58	0.25	11.18



There have been no reportable accidents during Period 6. The 13 period AFR is 0.25 compared to the target, 0.24 accidents per 100,000hrs worked. There has been a decrease in the overall service strike frequency for the project, however, a number of water services have been struck by BSC. A new 'record of service damage' form is being used to help identify areas of causation.

Directors Safety tours and Project Manager inspections have achieved 100% of those planned, however, a concerted effort is still having to be made to carry out joint inspections with the contractor. Further CoCP inspections have been carried out by **tie**, details of which are contained in Appendix B. Joint **tie** / BSC inspections have identified the main issues on BSC sites as — Provision of PPE, Housekeeping and Planning and Management. These issues have been addressed directly on site and are being monitored.

There have been a number of joint excavation inspections carried out by **tie** and CUS. Remedial actions required and implemented at 9 out of 17 excavations assessed. Premature removal of trench support in advance of reinstatement operations contributed to the negative findings. Learning points acted on by CUS management.

Works at Edinburgh Airport with Farrans and Raynesway have not been progressing as well as could be expected. A number of incidents including service strikes, fences being blown over and near misses involving plant have occurred. **tie** Infraco Director has met with Farrans Director to discuss and resolve issues.

MUDFA as-builts and utility handover process is progressing (estimated 10% complete) but remains a cause for concern (against site work estimated 97% complete).

An Operative twisted his ankle on site and this resulted in the operative being absent from work. The operative returned to work Friday 11<sup>th</sup> September.

#### 6.1 Environment

The report from BSC on the environmental fuel spill at the Farrans site at Gogar Burn was finally received. It will now be reviewed by **tie**. BSC have intimated that SEPA have notified them that there will be no enforcement action taken. This is yet to be substantiated.

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No environmental incidents have occurred during Period 6

#### 6.2 Deliver a Safe Tram (Quality)

		Data Checked						
Section	Activity	Interdisciplinary Design Check	Hazards	Inspection and Test Plan System	Design Variation/Change	As Bults	Asset Register	
Princes St	OLE Pad Foundations	g.	1	1	N/A	1	0.5	
Guided Busway	OLE Pad Foundations	0.5	0.5	1	N/A	N/A	N/A	
Princes St	Track works	0.5	1	1	0.5	1	0.5	
Gogar Depot	Building Foundations	0.5	0.5	1	0.5	0.5	N/A	
PD	Total (y)	1.5	3	4	1	2.5	1	
	Max Possible Total (y)	4	4	4	2	3	2	
Total to date	Percentage	25%	71%	88%	50%	80%	63%	

Key - Y = Evidence exists (1) N = No evidence exists (0) NA = Not applicable (-) P = Part evidence in place (0.5)

Action taken from Period 5 – Deliver a safe tram metrics have been used in an area prior to construction starting. A Safety Verification Audit was carried out during Period 6 which highlighted 7 Findings, 3 of which were observations, 1 Major Finding and 3 Minor findings. The major finding was that no Systems Integration Plan was in place and there was no timescale for delivery of the plan, however, subsequent lower tier plans were in place. BSC did not deliver a presentation on Change Management to the PSCC however, presentations were delivered to the ICP on Tramstops.

Period 6 "Deliver a Safe Tram" inspection metrics were carried out on 4 activities across the project, 2 at Princes Street, 1 at the guided bus-way and 1 at the Depot.

Of the activities checked, an increased number show partial evidence of having gone through BSC's Inter-Disciplinary Check process, however, this was still only ad-hoc through CVI's and SDS internal IDC process as opposed the full BSC process. There is still an upward trend.

There are a number of hazards still open on the BSC project hazard log. A meeting between BSC, tie and Transdev is planned for the end of September to facilitate addressing the open hazards.

Inspection and Test Plans, the contractors' process for quality control during construction continues to appear to be to a good and acceptable standard.

Changes to design on site were backed up by technical queries from BSC to SDS, however there was no evidence to show if the change had been assessed for the need to go through the IDC process. This is still outstanding from previous inspections. A presentation from BSC was due to take place at September PSCC but did not, this has been rescheduled.

Evidence that as-built information was being recorded and stored in the appropriate way to facilitate future records and the Asset Register was provided during the inspections

#### Action to be taken

Further areas not yet under construction to be checked using metrics

A presentation from BSC to tie will be given in October regarding the BSC design change process.

Report from Safety Verification Audit held during period 6 to be completed and action from findings to be followed up

Schedule of forthcoming internal IDC workshops requested from BSC by tie.

Discuss mitigation action with tie Project Management for areas about to start construction

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## 7 Stakeholder and Communications

#### 7.1 Media / Press Activity

Media Coverage for Period 6 has been extensive as usual, with articles relating to the project appearing daily in various local newspapers and intermittently in national publications.

Positive news pieces included a story in The Herald with regard to a Carbon Emissions report by the Scottish Government. Coverage of the progress made on the Gogarburn bridge works and the Princes Street reinstatement also made for positive press for the project. A profile of our extensive archaeological works for the Edinburgh Trams website was conducted using Bit TV. John Lawson, Head of Archaeology CEC and two contractors, Headlands and GUARD, where interviewed as part of the profile.

Upcoming media stories for Period 7 include a profile on Women and Construction, a "Day in the Life of the Logistics team" piece along with a story highlighting the new Tramformer scheme for Primary Schools which promotes awareness of the project and safety around worksites. Another profile piece concerning Richard Jeffrey having reached 4 months on the project will be printed during the first week of Period 7.

#### 7.2 Customer Service Activity

Overall, correspondence from Period 6 has fallen by 99 contacts from Period 5. Each week logged under 100 contacts, with week 3 only recording 59 contacts.

Correspondence via email, phone calls and face to face meetings continue to remain the main formats for enquiry by the public. Contacts logged by phone call (141) and email (95) claimed the majority of the overall correspondence. Contacts logged via Face to Face meetings totalled 59 for Period 6, a drop of 50 contacts from Period 5 where correspondence reached 109. The remaining contacts for Period 6 consisted of 4 letters, while no contacts were received by TCA Report or Fax.

Information requests constitute the majority of all correspondence for Period 6, with 219 out of the total 299 contacts made regarding information on the project and its various components. This trend has not differed from previous Periods, however the total requests for information dropped by 106 from Period 5. Typical enquires included information on Gas Abandonment works on Leith Walk, parking suspensions, Haymarket works and timescales for various works sites across the route.

Period 6 Complaints (43) and COCP Complaints (14) have increased since Period 5 by 14 and 4 contacts. Weeks 1 and 3 especially logged high numbers of complaints with 10 and 17 being recorded by the Customer Service team. With 17 complaints during week 3, issues concerning alleged inconsistent information on notifications and lack of completion dates on signage at work sites. COCP complaints were logged concerning similar issues of signage not being accurate.

Employment and Logistics figures remained high throughout Period 6 compared to previous periods with 7 and 5 contacts being made. The remaining contacts were spread over the remaining categories with no emerging trends.

#### 7.3 Public Information Planning

Various pieces of signage have been produced for different areas and events. Open for Business signage was designed and produced for Frederick Street, Murrayfield and the Conan Doyle bar. Banners were also made for the Edinburgh Festival firework display.

Preliminary designs and illustrations for new Tram Information Boards are ongoing along with investigatory signage options for Leith Walk and Shrub Hill as part of Open for Business. The new tram film which was filmed in April has now been finished and the final copy completed.

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Continued liaison with local traders in the Princes Street area has brought about signage being cleared from the west end of Princes Street now that the main track works are progressing further towards the mid to east end.

Two new signs have been designed to be placed at the Princes Street junctions with Hanover Street and Fredrick Street advertising the businesses on these two streets. These signs will be installed in the next week. This was welcome by the retailers in these areas.

Notifications will go out next week regarding the change in traffic management at the Lothian Road junction which will take effect on the weekend of 2<sup>nd</sup> October 2009. Three notifications have also been issues for the Haymarket area during Period 6. Notifications were also delivered concerning the closure of Laurie Street, with a diversion route being put in place to assist traffic wishing to enter Constitution Street.

A strategy planning meeting has taken place in preparation for works on York Place and London road, while consultations with Broughton Community Council are to take place regarding works in the area. Regular meetings are also held with Parliamentary MSPs regarding the project and its progress.

#### 7.4 Website / Internet Communications

There were 13102 visits to the <u>www.edinburghtrams.com</u> website this period, with the number of followers on twitter rising to 222 against last period's 116. Facebook interaction and membership has also risen with 290 'fans' now following our facebook page as compared with last period's 183.

Video podcasts were introduced half-way through the period to <a href="www.edinburghtrams.com">www.edinburghtrams.com</a> and the Apple iTunes store. While it is not possible to track how many people subscribe for these updates via iTunes, 773 people accessed the podcast feed on our servers, indicating that at least this many people viewed the podcast online or downloaded it.

RSS feeds which actively push information to users were accessed 1430 times this period. For the first time on <a href="www.edinburghtrams.com">www.edinburghtrams.com</a>, "Local Updates" were pushed down to second place, with podcasts becoming our most popular RSS item. The community pages which house information on COCP feedback are also more popular this period than ever before with 27 users receiving RSS updates for this information.

Part of this shift in usage patterns is explained by the increasing popularity of our facebook and twitter pages. 551 people accessed the local updates page via links posted on these pages as opposed to 510 users viewing it by access from the parent site. Responses to social network posts are also remarkably swift.

Participation in online discussion forums on our facebook site has increased, with users now posting some of their own discussion threads about topics which are of interest to them. Feature items seem to be particularly popular, notably pieces done on our archaeological discoveries during utilities work and a regular photo feature explaining different construction practices.

To make best use of facebook, we need to actively develop content people wish to interact with. At present, photos and video are the most popular content on our site, while discussion boards are growing in popularity. 88 interactions with facebook users were logged to 14<sup>th</sup> September. Interactions are posted on each user's wall, encouraging their networks of friends and contacts to visit the Edinburgh Trams page.

## 7.5 Logistics

Period 6 Logistics figures again remain constant at roughly 340 inbound deliveries per week. Outbound deliveries however dropped significantly from the 70 recorded during Period 5. Between week 1 and week 2 during Period 6 Outbound deliveries dropped by 27, from 34 to 7 deliveries.

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Figures for boxes, cages and rails delivered as part of the inbound deliveries also dropped by around 400 each between week 1 and 2 also. Superdrug delivery point has been moved to Hanover Street due the street being cleared of difficulties.

#### 7.6 Partner and Stakeholder Communications

In the last month, Tramformer presentations have been conducted at 17 primary schools in Edinburgh. Recruitment is now under way, and 2 pupils are being selected from each participating school. Visits to sites will take place next month.

We have also been involved in running workshops in conjunction with Scottish Businesses for Communities. The pilot programme ran at Craigroyston High School this month, 8 workshops were run to a total of 80 Primary 7 pupils.

Edinburgh Trams was represented at the Scottish Transport Convention on the 15/09/09 with an information stand and employees on hand to discuss with attendees the progress of the project.

Presentations were given to the following during Period 6:

- Forty One Club
- Tadashi Ito Professor of Engineering from the University of Japan
- Leith Retired Workers Group

A representative from the project attended the Edinburgh Chambers of Commerce AGM Breakfast.

#### 7.7 Freedom of Information Requests

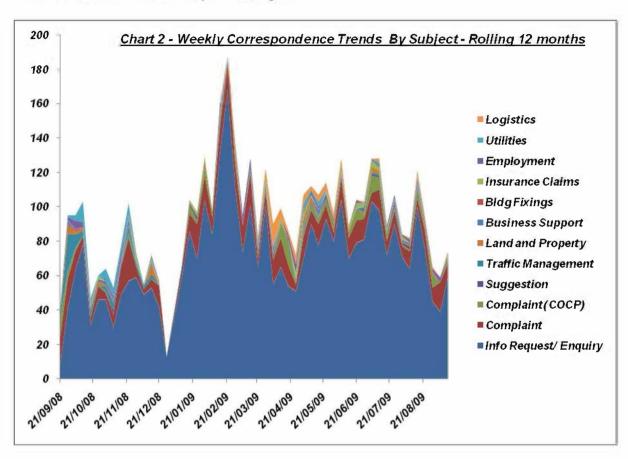
For Period 6, a total of 8 Freedom of Information requests have been dealt with. Of the 8 requests, 5 were completed, 2 are waiting to be signed off for completion while one request is still in progress. One request has also gone to the Information Commissioner for consideration.

## 7.8 Winter Festival

A Marketing and PR working group has been set up comprising of professionals from City of Edinburgh Council, **tie**, DEMA, Winter Festivals and retailers in the City Centre. The group is continuing to meet to discuss the proposals for this year's Winter Festival and to insure the success of the festive celebrations.

A report on the Princes Street Christmas proposals will be considered at the next Policy and Strategy Committee on 29 September. This will consider the main options for managing Princes Street over the Winter Festivals period in light of discussions undertaken with city centre retailers, and to determine when buses, taxis and cycles will be returned to Princes Street following the completion of the tram construction works. An update will be provided in the next report.

## 7.9 Customer Service Graphs and Figures



#### a) Monthly Customer Service Report 17/08/2009 - 11/09/2009

ltem	Volume Month	Volume (Cumulative from 21/11/08)	Performance (Month)	Performance (Cumulative)	Target Performance
Telephone response	213	2699	98	97	90% in 30 seconds
Telephone Same day resolution	209	2613	98	97	Info only
Email acknowledgement	88	1381	100		100% acknowledged within 24 hours
Email response			100	99	90% resolution in 7 days
Email same day resolution	84	1254	96	91	Info only
Letter acknowledgement	4	88	100		100% acknowledgement within 24 hours
Letter response			100	94	100% resolution in 7 days
Total Enquiry	305	4168			

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Volumes					
Website update	63	795	100	100	Weekly

b) Out of Standard/Work in Progress statement at month end 11 Sept. 2009

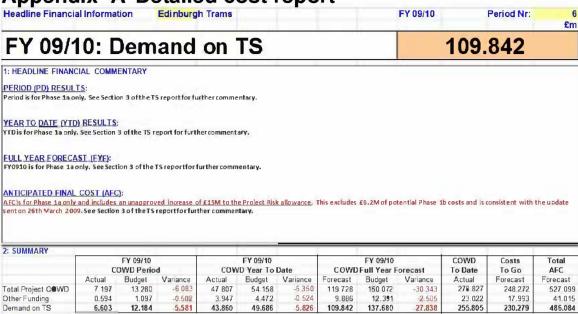
		Volume of WIP @ m/end	Oldest date	Oldest Issue	Handled By
	Email	0	N/A	N/A	N/A
M/e 11 Sept. 2009	Letters	1	25/11/08 (Out of standard)	TRO Process	Alasdair Sim
	Calls	0	N/A	N/A	N/A

## c) Monthly Notifications Performance 17/08/09 to 11/09/2009 and Cumulative from 21 November 2008

- 1 Major notifications for tram works (in standard)
- 7 Minor notification all for utility (all in standard)
- 0 Emergency notifications

Notification Type	Work Site		Utilities	Tram works	Total	% in Standard
	Month	Notifications	0	1	0	<u> </u>
Major works		In Standard	0	1	1	100
-	Cumulative	Notifications	6	5	11	
		In Standard	0	2	2	18
	Month Notifications		7	0	7	
Minor Works		In Standard	7	2	9	100
	Cumulative Notifications		50	25	75	
		In Standard	43	16	59	79
	Month	Notifications	0	0	0	
Emergency		In Standard	N/A	N/A	N/A	N/A
	Cumulative	Notifications	14	0	14	
		In Standard	14	0	14	100

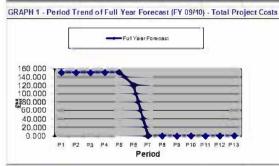
Appendix 'A' Detailed cost report
Headline Financial Information Edinburgh Trams



49.686

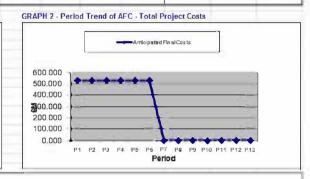
109.842

137.680



12.184

6.603



255.805

#### 3: RISK AND OPPORTUNITIES TO

#### FULL YEAR FORECAST:

See Section 3 of the TS report for further commentary.

#### ANTICIPATED FINAL COST:

AFC is for Phase 1a only and includes an unapproved increase of £15M to the Project Risk allowance. This excludes £6.2M of potential Phase 1b costs and is consistent with the update sent on 26th March 2009. See Section 3 of the TS report for further commentary.

#### 4: ACCRUALS COMMENTARY

5: TOTAL PROJECT ELEMENT SPEND BREAKDOWN (Total Project Costs) PLANNED/EMERGING/FORECAST		stimated Co		Act To	Variance		
Allocated in accordance with standard W-BS. Values relevant to		Escalated		Cost Of	Forecast	Anticipated Final	AFC v
business case or other agreed baseline date to be known as original estimate	Original	Original	Latest	Work Done	to		ELE
Relevant Baseline date : EBC-20/12/2007	Estimate	Estimate	Estimate	(COWD)	Completion	Costs (AFC)	
General Overall	28 233	28 233	30 159	25.331	4 828	30.159	0.000
Procurement Consultant	68.126	68.126	81.747	56.098	25.649	81.747	0.000
Design	23.683	23.683	29.813	27.343	2.470	29.813	0.000
Financial Issues/Funding/Procurement Strategy	2 258	2,258	2 630	2,453	0 177	2.630	0.000
Parliamentary Process/Approvals	0.329	0.329	0.319	0.319	0.000	0.319	0.000
Procurement Construction Works	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Construction Works	273.102	273.102	299.367	137.796	161.571	299.367	0.000
Testing & Commissioning	1.984	1.984	0.000	0.000	0.000	0.000	0.000
Handing Over & Service Operations	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NOP/Rail Projects Interface (Promoters View)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Interfacing Developments	0 000	0.000	0 000	0 000	0.000	0.000	0_000
TRAMS, Vehicles (Edinburgh TRAMS Use Only)	51.370	51.370	58.470	29.487	28.983	58.470	0.000
Risk	48.974	48.974	24.594	-0 000	24.594	24.594	0.000
Opportunity (Negative Value)	0 000	0.000	0 000	0 000	0 000	0.000	0.000
OB/Contingency	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	498.060	498.060	527.099	278.827	248.272	527.099	0.000

#### Edinburgh Tram Project

**Delivery Organisation Period Progress Report** 

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Detailed Financial Information Edinburgh Trams FY 09/10 Period Nr: £m 6: Current Year 09/10 - Baseline Budget 1 Total Project COWD - Budget P10 14.032 11.068 Pf3 Total 14.585 150,072 7.157 P5 P6 P7 P8 12.698 13.280 13.581 16.036 10.814 12.897 4.633 2 Other Funding - Budget 0.460 0.383 0.893 0.591 1.048 1 1.097 1.121 1.324 1.159 0.914 1.132 1.065 1.204 12.391 3 Demand on TS - Budget 6.566 11.649 12.184 12.459 14.712 12.873 10.154 12.582 11.832 5.115 4.251 9.921 13.381 | 137.680 7: Current Year 09/10 - Actuals (Updated 4 weekly)
4 Total Project COWD + Revised Forecast 9.823 7.197 7.300 9.127 6.057 8.043 7.560 8.474 13.713 12.385 10.051 6.074 13.924 119.728 7 Other Funding + Revised Forecast 0.754 0 500 ] 0 664 0.624 0 811 0 594 0.700 1.132 1 023 0.830 0 603 0 502 1.150 9.886 10 Total Demand on TS 7.774 12.581 11.363 8.373 6.936 6.603 9.221 6.698 5.572 12.774 109.842 5.557 7.379 9.012 8: Variance tracker
12 Variance Line 1 to Line 4 - Project Actual vs Budget
13 Variance Line 2 to Line 7 - Oth Funding Actual vs Budget
14 Variance Line 3 to Line 10 - Demand on TS vs Budget 0.136 Total Financial Commentary - FY 10/11 Onwards
123.899 All costs are for Phase 1 acris and includes an unapproved increase of £15M to the Project Risk allowance. This excludes £6.2M of potential Phase 1b costs and is consistent with the update sent on 5: Next Year 10/11 - Forecast (Updated 4 weekly) Q4 Total 27.162 123.899 18 Total Project COWD 21 Other Funding 3 774 2.901 2.104 2.113 10.892 26th March 2009. See section 3 of the TS report for further commentary. [ 30.113 ] 30.256 ] 27.589 ] 25.049 ] 113.006 ] 24 Total Demand on TS 10: All Years (Escalated) 26 Total Project COWD (Updated 4 weekly) FY06/07 FY07/08 FY08/09 FY09/40 FY10/11 FY11/12 FY12/13 30.431 85.852 100.979 115.728 123.859 52.453 0.000 TOTAL 527.099 29 Other Funding 7 769 9.886 10.892 41.015 1 000 0 019 10.287 1 162 0 000 0 000 0.000 32 Total Demand on TS 0.000 3.093 9.664 30.412 75.565 93.210 109.842 113.006 51.291 -0.000 0.000 0.000 0.000 486.084 GRAPH 4 - Year To Date/ Costs To Go - % Complete - Current Year FY 09/10 GRAPH 3 - Demand on TS: Actual/Budget Run Rate - Current Year FY 09/10 16.000 Total Project COWD 14.000 47,807 71,921 12 000 10.000 **3.**000 Other 3,947 5.938 Funding 6.000 4 000 Demand on 65.982 43.860 2.000 TS 0 000 P1 P2 P3 P4 P5 P6 P7 P Period P8 P9 P10 P11 P12 P13 40% 60% % Complete 0% 20% 60% 80% 100% 11: Other Funding Other Funding
Budget (Current Year 09/10)
RAB Funding (if Applicable)
Other Funding Stream
Other Funding Stream
Other Funding Stream
Other Funding Stream
Other Funding Stream P1 P2 Р3 P4 P6 P7 P8 P9 P10 P11 P12 Total 0.000 0.460 0 383 0 893 0 591 1 048 1 097 1 324 1 159 0 914 1 132 1 065 1.204 12.391 0.460 0.383 0.893 0.591 1.048 1.097 1.324 1.159 0.914 1.13 1.065 1.204 1.121 12.391 Actual (Current Year 09/10) P1 P2 Р3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 Total RAB Funding (If Applicable) Other Funding Stream Other Funding Stream Other Funding Stream 0.754 0.50 Other Funding Stream
Total Actual Other Funding 0.754 0.500 0.664 0.624 0.811 0.594 1.132 0.502 1.150 9.886 12: Promoter Full Year Forecast Run Rate (Total Project Costs)
Period Trend of Full Year Forecast (Current Year 09/10) P13 P1 P2 P3 P4 P5 P6 150.084 150.084 150.084 150.084 150.084 119.728 13: Promoter AFC Run Rate (Total Project Costs) Period Trend of AFC Anticipated Final Cest P8 P9 P10 P11 P12 P13 P1 P2 P3 P4 P5 P6 527.099 527.099 527.099 527.099 527.099

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# Appendix 'B' Change control register

(Register and other information as volunteered or requested from delivery organisation / promoter – There are none to report on at this point)

## Appendix 'C' Programme information

To be sent separately to TS by CD:

- Milestone Schedule Summary (progress against baseline)
- Full Detailed Time Schedule (progress against baseline)
- Critical Path
- 12 Week Look Ahead Extract from Schedule

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# Appendix 'D' Primary risk register

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			ETN Primar	ry Risk Re	gister - Per	iod 6 200	9/10				
	Risk	Description									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
343	General delay to programme with various causes e.g. failure to obtain approvals on time; parliamentary processes, contractor issues.	Delay to completion of project	Increased out-turn cest due te delay plus revenue loss	S Bell	制性原		■RP on programme management (EOT1) Lias●n between tie/BSC programme managers	Undefined On Pregramme	Undefined On Programme		S Bell T Hickman
							Programme Management Panel process	On Programme	On Programme		F McFadden
							Weekly tie/BSC commercial meetings	On Programme	On Programme	30-Dec-11	M Paters●n
1077	Base Date Design Information to Issued For Constructions (BDDI-IFC). Lack of visibility of design changes between November 2007 and May 2008			S Bell	nijejao.		Establish a process which will act as a control mechanism for design changes (If one exists already then ensure process is complied with)	Complete	Complete	30-Jun-09	T Glazebr⊕ek
							Intensive Mediation Marathon 29/6/09 to 6/7/09 to try and resolve issues.	Complete	Complete	30-Jun-09	S Bell
							Mediation resulted in no overall agreement on BDDI - IFC although it gave useful background information. Strategy paper to be presented to TPB on 29 July to seek approval for way forward including utilising necessary contract mechanisms (DRP, audit etc)	Complete	Complete	14-Aug-09	S Bell
							Resolution Strategy approved - 1st DRP to go 10th August, audit requests to BSC for information going w/c 3.8.09	Complete	Complete	10-Aug-09	S Bell
							Sixissues going through DRP process. Anticipated conclusion mid-November 09	NJA	On Programme	13-Nev-09	S Bell

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Delivery Organisation Period Progress Report

ort

			ETN Primar	y Risk Register - Per	iod 6 200	9/10				
	Risk	Description								
ARM Risk ID	Cause	Event	Effect	Risk Owner Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
1090	Initial costs for Burnside Road works higher than anticipated	Cost of works at Burnside Road exceed that allowed in project budget.	Additional Cost	F McFadden		Costs being reviewed and tender decurnents sent out April 09.	Complete	Complete	30 Jun-09	F McFadder
						Tender decs issued based en scheme design infermation. Pre- tender estimate produced and final design engoing. Delivery of tenders final outcome can be predicted.	C●mplete	C●mplete	30 Jul-09	F McFadder
1091		Excavation of soft, unsuitable material below	Additional cest	F McFadden		D●naldsons t● carry out surveys	Complete	Complete	30-Jul-09	C Neil
		Earthworks outline				Extent of soft ground being investigated. External specialist advice deployed.	On Pr•gramme	On Programme	31-Dec-09	M Paters•n
1101	Unreasenable behaviour of BSC commercial management	Unrealistic estimates being submitted for	Pregramme delay while disputes regarding	F McFadden		Additi•nal resource fr•m TNT	Complete	C●mplete	30-ЈшІ-09	M Paters•n
		petential changes	estimates are res∙lved			Agreed with BSC for independant evalutation to get benchmark	Complete	Complete	30-Jul-09	M Paters•n
						All estimates to be scrutinised by tie commercial team and, where appropriate, challenge made to BS C. Additional resource (T&T) being used to check estimates to reduce delay.	On Pr∙gramme	On Programme	30-Dec-10	M Paters <b>•</b> n
1094		Reads throughout works require full depth recenstruction	Programme impact plus additional costs. £1.5m cap applies to only 4 areas.	F McFadden		Carry out surveys to confirm extent of roads requiring full depth reconstruction	Complete	Complete	30 Jun-09	C Neil
						Suite of options from surveys to be reviewed and agreement reached	On Pr•gramme	On Programme	31-Oct-09	M Paters•n

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			ETN Primar	y Risk Re	gister - Period 6 200	9/10				
	Ris	k Description								
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	SDS contractor does not deliver the required prior and technical	Delay to IFC drawings beyond V31 Programme	Delay to programme with additional resource costs and delay to infraco. Impact upon risk balance.	D Sharp	<b>州動、西名</b> 。	Evaluation of prior appreval programme	Complete	Complete	31-Oct-08	D Sharp
	approval consents in line with SDS V31					Fortnightly Meetings •f Appr•vals Task Force		On Programme	30-Oct 09	D Sharp
						Hold fortnightly Roads Design Group	Complete	Complete	31-Dec-07	T Glazebro•
						Informal consultation prior to statutory consultation	Complete	Complete	31-Mar-09	T Glazebro•
						Integrate CEC into tie organisation/accomodation (office move)	Complete	Complete	4-Jun-07	T Glazebro•
279	including Network Rail Risk transfer respor	Delay to programme; Risk transfer response by bidders is to return	D Sharp	Hor 21.00	Additional EMC modelling to give better info to NR	Complete	Complete	31-Dec 07	C Kerr	
		delayed	risk to tie; Increased •u: turn cost if transferred and also as a result of			CEC Planning - mock application by SDS	Complete	Complete	31-Dec-07	T Glazebro•
			any delay due to inflation.			Draft depot and station change proposals to NR	Complete	Complete	31-Jan-08	A Sim
						Fortnightly meetings of Approvals Task Force	On Programme	On Programme	30-Oct 09	D Sharp
						Identify fallback options	Complete	Complete	31 Aug-07	T Glazebro•
						Monitoring and tracking through the 3rd party rep	Complete	Complete	30-Jun-09	D Sharp
						Monitoring of BBS - 12 week look ahead		On Programme	14-Jul-11	R Bell
						Obtain critical consents prior to	Complete	Complete	31-Jul-08	T Glazebroo

financial close

## Edinburgh Tram Project

Delivery Organisation Period Progress Report

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workforce.

			ETN Primar	y Risk Re	gister - Pe	riod 6 200	9/10				
	Risl	k Description									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
52	Political and/or Stakeholder objectives change or require design developments that constitute a change of scope;	Amendments to design scope from current baseline and functional specification	Programme delay as a result of re-work; Programme delay due late receipt of change	■ Sharp	Hijh 2200		Close working relationship with CEC and stakeholders	On Programme	On Programme	31-Jan-11	L Murphy
	Planning Department requires scope over and above baseline scope in order to give approval (may be as a result of lack of agreement over interpretation of planning legal requirements).		requirements and lack of resolution; Scope/cost creep (dealt with through change process); Project ultimately could become unaffordable.				Weekly critical issues meeting	Cemplete	C∙mplete	31 Jul-08	T Glazebr⊕ek
928	Major single safety incident (including a dangerous occurrence) during construction	Safety incident during construction	Delay (potentially critical) due to HSE investigation and	F McFadden	H:() (21.00		All Site Staff to get CSCS or equivalent	On Programme	On Programme	30-Jan-11	C McLauchlan
	cocanonco, daning conocacción		rework. PR risk to tie and stakeholders.				Develop and Implement Incident Management Processes	Complete	Complete	27-Арг-07	T Condie
							HSQE Audits, site inspections and Management Safety Tours to be carried out	On Programme	On e Programme	31-Dec-10	B Cummins
							Safety Induction to be carried out for all site staff	On Programme	On Programme	31-Dec-10	B Cummins
							Site Supervisors to be appointed by tie	Cemplete	Cemplete	28-Feb-07	S Clark
							The tie "Safety" bus is being used to deliver safety talks & culture surveys to the contractors	On Programme	On Programme	31-Dec 09	B Cummins

## Edinburgh Tram Project

Delivery Organisation Period Progress Report

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Delivery enganisation relies regress report

			ETN Primar	ry Risk Re	gister - Period 6 200	9/10				
	Risk	Description								
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
931	Utilities assets uncovered during construction that were not previously accounted for;		Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional	C Neil	HIGH STATE	GPR surveys in areas where there are likey to be services	Complete	Complete	1-Apr-07	T Glazebroo
	unidentified abandoned utilities assets; known redudant utilities; unknown live utilities; unknown					Infraco trial holes where applicable	On Programme	On Programme	31-Jan-10	P Dobbin
	redundant utilities.		works.			MUDFA trial holes to verify GPR surveys	Complete	Complete	30 Jul-09	A Hill
						Obstructions and voids survey, establish ownership reduced delay on discovery.	On Pr•gramme	On Programme	31-Dec-09	C Neil
977	Legal challenge. Extension of statutory consultation process. Large number of objections. TRO process is subject to a public hearing process.	Delay in achievement of TRO(s) due to a large number of public objections and/or a legal challenge to using a TTRO	Requirement to start construction using TTROs	D Fraser	1400 1100	Comms strategy to include provision of process and drawings on website for public viewing	NVA	On Programme	30-Sep-09	S Clark
	public reading process.	to construct Infrace.				TRO strategy approved by board, discussion to be held with CEC head of transport to reduce risk of legal challenge.	On Programme	Complete	31-Oct-09	S Clark
						TRO Strategy to CEC Transport, Infracstructure and Environment Committee on 22 Sept 09	N/A	On Programme	22-Sep-09	D Fraser
						Use of TTROs to undertake construction of permanent works in advance of permanent TROs being approved	On Programme	On Programme	30 Jan-11	A Sim
1084	Coonstraints applied to work areas postcontract to satisfy stakeholders	Additional Traffic Management and enabling works are required to meet stakeholder constraints applied post contract		G Barclay	and the same	Assess TM implications to minimise enabling works and additional cost. Areas concerned are Haymarket, York Place to Picardy and Baltic Street Junction.	On Programme	On Programme	31-Oct-09	G Barclay