

**Edinburgh Trams** 

**Lothian Buses** 

Tram Project Board Report on Period 9 Papers for meeting 16<sup>th</sup> December 2009

10:30am - 2:00pm following the tie Board meeting

#### Distribution:

#### Members and attendees

David Mackay (Chair)
Marshall Poulton
Bill Campbell
Steven Bell
Kenneth Hogg
Cllr Ian Perry

Cllr Phil Wheeler Stewart McGarrity Cllr Allan Jackson Cllr Gordon Mackenzie Brian Cox Peter Strachan

Donald McGougan Richard Jeffrey Dave Anderson Graeme Bissett Alastair Richards Neil Scales Alasdair Sim (minutes)

# In addition – for information only

Cllr Maggie Chapman Andy Conway Norman Strachan Iain Coupar Susan Clark Cllr Tom Buchanan Frank McFadden Alan Coyle Gregor Roberts

Dennis Murray Ailie Wilson Jim McEwan Gill Lindsay

# **Edinburgh Trams**

**Lothian Buses** 

Lothian Buses	FOISA exempt ☐ Yes ☐ No
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FOISA exempt

#### ☐ Yes □ No

# **Agenda Tram Project Board** Brunel Suite - Citypoint, 2<sup>nd</sup> Floor

# 16th December 2009 – 10.30am to 14.00pm following the tie Board meeting

#### Attendees:

David Mackay (Chair) Cllr Phil Wheeler Donald McGougan Bill Campbell Richard Jeffrey Dave Anderson Steven Bell Stewart McGarrity Graeme Bissett Cllr Allan Jackson Kenneth Hogg Alastair Richards

Cllr Ian Perry Cllr Gordon Mackenzie **Neil Scales** 

Marshall Poulton Brian Cox Alasdair Sim (Minutes)

# Apologies:

- 1 Review of Previous Minutes and Matters Arising
- 2 5 Key Business Priorities (Richard Jeffrey)
  - 2.1 **Building the Tram** (Steven Bell)
    - Project Director Progress Report Period 9
    - Change Requests & Risk Drawdown
    - Additional Papers for TPB Consideration \*
  - Preparing for Operations 2.2 (Alastair Richards) 2.3 **Building the Brand** (Mandy Haeburn-Little)
  - Building the Team 2.4 (Richard Jeffrey)
  - 2.5 Preparing for the Future (Richard Jeffrey)
- 3 Governance (Graeme Bissett)
- Date of next meeting 13th January 2010 4
- 5 AOB

<sup>\* (</sup>papers in pack)

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☐ Yes ☐ No

# **Edinburgh Tram Network Minutes**

# STRICTLY PRIVATE AND CONFIDENTIAL

# **Tram Project Board**

18<sup>th</sup> November 2009 (10:00 to 13:00)

# tie offices - Citypoint II, Brunel Suite

Members:			
David Mackay (Chair)	DJM	Bill Campbell	WWC
Richard Jeffrey	RJ	Cllr Gordon McKenzie (Part Time)	GMcK
In Attendance:	100	70 %	***
Steven Bell	SB	Alan Coyle	AC
Stewart McGarrity	SMcG	Cllr Ian Perry	IP
Brian Cox	BC	Cllr Phil Wheeler	PW
Graeme Bissett (Part Time)	GB	Cllr Allan Jackson	AJ
Andy Conway	DA	Bob Cummins (Part Time)	BC
Alastair Richards	AR	Mandy Haeburn-Little	MHL
Dave Anderson (Part Time)	DA	Susan Clark (Part Time)	SC
Marshall Poulton	MP	Alasdair Sim (minutes)	AS
Kenneth Hogg	KH	The second contract of	1000

# Apologies:

Donald McGougan, Neil Scales, Peter Strachan

1.0	Introduction, Review of Previous Minutes and Matters Arising	
1.1	DJM opened the meeting and acknowledged the apologies for those members unable to attend.	
1.2	<ul> <li>Review of Actions from previous meeting held on 21 October 2009:</li> <li>Item 1.2. Action completed.</li> <li>Item 1.4. A presentation on Smartcard technology is likely for the January 2010 TPB.</li> <li>Item 3.2. This will be presented at the December 2009 TPB.</li> <li>Item 3.4. DJM confirmed to the Board that the audit trail for the Burnside Road change request is in order.</li> <li>Items 3.5 &amp; 3.6. Covered in the SB presentation.</li> <li>Item 4.1. Action completed.</li> <li>Item 5.1. Common Branding discussions are underway.</li> <li>Item 8.1. Action completed.</li> </ul>	NS SB
1.3	The minutes of the Tram Project Board Meeting of 21 October 2009 were approved.	Note
2.0	Chief Executive's Summary	
2.1	RJ provided an overview of the five key business priorities to the Board and set out his assessment of the evolving relationship with the BSC senior representative over the past two periods. Progress on resolving outstanding matters with BSC remains a slow process, although it was noted that these are	

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	some signs of movement in specific areas.	
3.0	Building the Tram	
3.1	HSQE BC presented a series of slides to the Board. The key points arising from the discussions were:  Deliver a Tram Safely  With more than 150 operatives working within the Princes Street site and the increased risk that this can import, it is positive to note that	
	<ul> <li>RIDDOR assessment is below the target. This has been communicated to BSC.</li> <li>The SP cable failure at George/Castle Street which led to a power cut across the City Centre on 27/10/09 was discussed and BC confirmed that an investigation was underway to understand the cause of the failure. DA commended the prompt multi-agency approach with Scottish Power to rectify the situation quickly.</li> <li>The near miss reporting (from the contractor) has been on the increase in Period 8, and it was recognised that near miss reporting is an authorized by increase the size of the prompt.</li> </ul>	
	extremely important H&S indicator. BC reported that steps are being taken to improve BSC's reporting culture in this area.  Deliver a Safe Tram  BC noted that BSC are providing greater support in the metrics inspections, and that a series of weekly meetings have been ongoing	
	<ul> <li>with BSC in this area.</li> <li>It was noted that a positive presentation on trackform to the Office of Rail Regulation took place during Period 8, this focussing on integration and assurance processes. A further meeting has been set up with the ORR on the detail of S&amp;C arrangements (11 December 2009).</li> </ul>	
	<ul> <li>Integration, Assurance and Interdisciplinary Checks is an area that the BSC Senior Representative (David Darcy) is particularly engaged in resolving.</li> <li>The system of handing over completed sites from BSC to the Council</li> </ul>	
	was discussed, and BC confirmed that the process of completing Inspection and Test Plans by BSC regulates the handover of completed construction to the client, and that through this process a series of snagging items have already been identified. Despite the significant levels of sub-contractor involvement, quality and fitness for purpose remains a BSC obligation to deliver. DA noted that several sections of poor quality paving have been identified beyond the BSC site boundary on Princes Street, and that these are being addressed by CEC.	
	<ul> <li>Code of Construction Practice Monitoring</li> <li>COCP compliance monitoring has now been recorded since Period 5, and although a general improvement is evident, there are several areas that still require attention. These are the applicability of site notices, consistency of fencing and some evidence of non compliance with no smoking restrictions on site. tie will continue this monitoring and reporting as well as publish the results and action plans on-line.</li> </ul>	
3.2	Strategic Summary RJ provided the Board with a report on the outcome of the decisions from the	

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Adjudicator (16/11/09) on the Carrick Knowe and Gogarburn Bridge (BDDI to IFC Design Development) matters.

A full review of this determination is underway and it was noted that a decision on the Russell Road DRP item is scheduled for 17 December, and that papers are due to be submitted to (a new) Adjudicator on 19/11/09.

KH asked if **tie's** interpretation of the contract has changed through the evolution of this process, and queried whether a review of the strategic direction of the DRP is necessary. The Board discussed at length a number of matters including interpretation of the contract, both from a legal and technical perspective as well as the strategic direction of further submissions to the formal process. It was reiterated that it is too early in the process (for either party) to establish precedence at this stage in the process, and it was agreed that the current strategic direction should continue.

# 3.3 Overview of Progress (Infraco)

SB presented a series of slides covering the latest developments with the INFRACO contract. The principle matters covered were:

# Extension of Time 1 (EOT1)

SB sought the approval of the Board to issue a **tie** Change Order for a settlement of £3.524m (for 7.6 weeks EOT for the impacts of SDS programme v26 to v31). In reaching this figure, the principles for future extensions of time have been established; these covering the method of calculating escalation, rates and demonstrable cost.

The Board approved the Change Order request.

# Programme to Complete

SB highlighted **tie**'s interim assessment of 9 months extension of time and 6 months responsibility for costs which has been agreed with BSC. The timeline to complete the development of a new construction programme has been agreed for end of January 2010. DA supported this, but noted that it is critical to the City to have an agreed programme in place by February 2010.

RJ reiterated that there is a contractual obligation on BSC to provide mitigation, and that this is a matter where the parties are holding discussions on interpretation.

The Board approved the interim award of 9 months relief and 6 months costs.

# On Street Supplemental Agreement (OSSA)

SB updated the Board on the progress towards agreeing a new form of supplemental agreement for on-street works. The current drafting is largely based upon the structure agreed for Princes Street and is focussed on civil related elements. Costs to be based on rates or demonstrable costs, and credit for the various sections to be agreed in advance. RJ noted that to allow the works to proceed in January, it will be necessary to agree the terms of the OSSA during Period 9. For this reason he requested that the Board grant delegated authority to a sub-committee made up of RJ, DA, DcMG (or AC), MP and SB to provide the approval to enter into the OSSA. DA noted that as part of this deliberation, the group should be made aware of the possible outcomes

RJ/DA

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associated with entering into this form of agreement, on the basis of a ranging analysis (time and cost) based upon known and best estimate data sources.

The Board approved this approach and requested that a report be presented to the next TPB.

#### Progress on the Ground

SB reported that BSC has committed to starting works at a number of previously dormant worksites across the route. These works will commence during Period 9. SB then went on to present a series of photographs indicating progress and % completion.

# Princes Street Reopening

SC presented an update on the progress to reinstate Princes Street and the detailed programme to complete the works and return bus services scheduled for the morning of the 29<sup>th</sup> November 2009. Details of the Edinburgh Sparkles events were also shared with the Board.

# 3.4 Overview of Progress (Utilities)

SB reported that Carillion works are now 96% complete (compared to 97% last period due to an increase in scope to overcome technical issues) and that works are ongoing in the Haymarket and York Place corridors. It was reported that the closedown of the Carillion contract has been agreed in principle, and the final terms are subject to legal drafting. It is anticipated that subject to Board approval, a new contractor will be engaged (on a standard form of contract) to complete the utilities diversions in these areas from w/c 4<sup>th</sup> January 2010.

# This was approach was approved by the Board.

It was acknowledged that the outstanding claims from Carillion are unlikely to be resolved by negotiation, and that a formal route is likely to be required. The broad matters at issue were presented.

Works at Edinburgh Airport (being undertaken by Farrans) are 98% complete and are expected to be completed before Christmas. The Section 1A Utilities diversions contract was awarded to Farrans and these works commenced on 9 November 2009. Clancy Docwra have also been awarded a package of work to divert utilities at Lindsay Road.

# 3.5 Change Requests and Risk Drawdown

SB referred the Board to the approved change orders arising during Period 8, these are summarised below:

Reference	Purpose & Value	
COP156	Edinburgh Park Bridge Soft Ground	£185,000
COP092	Design Support & Extended Construction Support *	£1,544,357
COP150	Telford Access Road	£21,468
COP076	Edinburgh Park Office	£150,000
COP185	Haymarket BDDI-IFC	£28,858
COP191	A8 Underpass BT Supervision	£7,959
COP196	As-Builts	£105,236
COP199	DRP Increase in Costs	£134,949
COP196	Haymarket Retaining Wall	£94,317

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☐ No

	□ No	
	£2,272,144	
	*A separate paper was reported in the Board pack.  The Board noted the Change Control Status at Period 8.  SB asked the Board to note paper outlining the agreement to purchase a plot of land outside the Limits of Deviation (LOD) from Forth Ports @ £100K. This is	
0.0	within the Project Director delegated authority, and was <b>noted by the Board</b> .	
3.6	Gogar Interchange SB reported that design work is currently 21% compared to a planned 29%, and that the financial outturn remains unchanged. Discussions are ongoing with Network Rail and Transport Scotland covering a number of issues including traffic management, access and land constraints, construction sequencing and design co-ordination.  It was noted that <b>tie</b> are seeking a full indemnity from Transport Scotland to address cost and time impacts as a result of the expected concurrent construction of the Gogar Interchange.	
4.0	Goverance	
4.1	GB updated the Board on the position regarding Governance, reporting that the Policy and Strategy Committee is scheduled to approve the composition of the TEL Board on 1 <sup>st</sup> December 2009. It was noted that formal VAT clearance from HM Revenue and Customs has not yet been received, although informal notification has been forthcoming.  Share transfer (tie shares to TEL) is targeted to be completed before Christmas 2009, and the BROR Sub-Committee is considering the process to engage Phase 2 of the process, which will involve the transfer of LB shares to TEL and the definition of operational and management structures.  GB will prepare a paper of TPB consideration for the February 2010 Board meeting.	GB
5.0	Preparing for Operations	
5.1	RRAMCO & DPOFA AR reported that Tram production remains ahead of schedule with 13 trams currently in various stages of construction. Tram No.1 has moved and stopped under its own power as part of the factory testing regime – this is a significant milestone. It was also pleasing to note that tram # 2 has been on display at the Barcelona City Fair as an exemplar CAF product, in Edinburgh Tram livery. The sequence of factory and dynamic testing as the completed trams roll off the production line remains on schedule, with the first tram delivery planned for April 2010. The Siemens test track in Wildenrath will be used for the dynamic testing.  In response to a query from GMcK, AR reported that 27 trams will be delivered for the Phase 1a operation, which allows for a service frequency (in both directions) of 8 trams per hour running between the Airport and Haymarket, and 16 trams per hour between Haymarket and Newhaven (@ 3mins 45 sec headway).  AR outlined the anticipated timelines for the Operational Preparedness process, this including transfer of DPOFA staff to (initially) Edinburgh Trams Ltd, a shell company of Lothian Buses. It was noted that up to 225 staff will be employed by TEL by the time that services commence. It was noted that the	

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10.0	Date of Next Meeting	
10.0	potential benefits and information sharing opportunities.	
	workshop set up in late January 2010 to discuss the matter further to define	MP
	ongoing with the CEC IT support services, LB and TEL. There is to be a	MD
	control centres for tram, buses and traffic at a single site. Discussions are	
9.1	MP reported that he is currently investigating the potential to co-locate the	
9.0	AOB	
8.1	Nothing further to report at this time.	
8.0	Preparing for the Future	
	The Board approved the KPIs as presented.	
	position to ratify the individual and collective performance measurement.	
	subjective, the RemCom will be fully consulted on the process and will be in a	
	It was noted that whilst the measurement of some of these sub-items remains	
	Team Culture	
	Operational Readiness	
	<ul><li>Stakeholder Support</li><li>Safety</li></ul>	
	these covering the following areas:  Stakeholder Support	
7.1	RJ presented a series of slides defining the Key Performance Indicators for tie,	
7.0	Building The Team	
7.0	Street areas.	
	noting that this is being targeted for the Haymarket, Leith Walk and Broughton	
	the works that will be commencing across the City Centre from January 2010,	
	MHL then reported on the work that CEC/tie are engaged in for communicating	
	report back to the Board in January 2010.	
	and tie, this providing formal documentation for future generations. MHL will	MHL
	who are building the tram, from the contractors and support services to CEC	00000 to 1 000
	process of arranging the production of a publication focussing on the people	
	marketing initiatives, and reported that the Communications team are in the	
	MHL went on to discuss the Edinburgh Sparkles and West End Village	
	77% of stories published in the media are either positive of balanced.	
0.1	MHL reported on press coverage during the month of November and referred the Board to the Media Analysis Paper. It is notable that in the past 4 weeks,	
6.1	<del> </del>	
6.0	The Board confirmed its approval.  Building the Brand	
	Board ratify the decisions made by BROR to date.	
	Readiness Sub-Committee has no delegated authority, and asked that the	
	RJ noted that at the present time the Benefits Realisation and Operational	
	The agreed terms of reference for the sub-committee.	
	<ul> <li>The stages to be followed in setting up an asset management system;</li> </ul>	
	<ul> <li>The approach to tendering electrical power;</li> </ul>	
	compatible with LB systems and back office);	
	■ The procurement of the revenue collection system (which will be	
	that work has commenced in the following areas:	
	AR also updated the Board on the first BROC Sub-Committee meeting noting	
	the role of the particular staff member concerned.	
	confirmed that LB already operates a number of separate T&C's depending on	
	to those T&C arrangements that a Lothian Buses driver operates to. WWC	

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The meeting closed at 13:00 and the date of the next meeting will be Wednesday 16<sup>th</sup> December 2009 commencing at 10:30hrs.

Prepared by Alasdair Sim on 24<sup>th</sup> November 2009 10.1

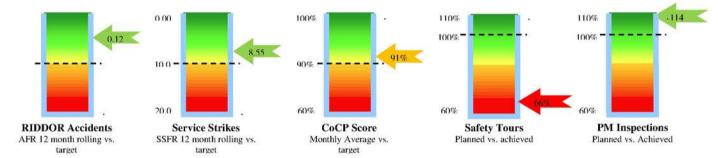
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☐ No

# **Building The Tram**Project Director Report

# Period 9 09/10 HSQE

HS&E ACCIDENTS and INCIDENTS SUMMARY											
Total Total Hours   >3 day   Major   Injury   NM/Unsafe   Service   EN   T   MOP   AFR   SFR									SFR		
Period	153,150	0	0	3	20	9	2	0	5	0.00	5.88
13 period rolling	1,717,639	1	1	31	258	146	13	8	51	0.12	8.50



- There have been no reportable accidents during Period 9 bringing the 13 period Accident Frequency Rate to 0.12 which is ahead of the target for 09/10. Period 9 figures also show that the service damage frequency rate continues to fall, with no service strikes reported by MUDFA.
- BSC service strikes have risen in the period with a significant near miss and service strike recorded. However, the 13 period rolling frequency continues to fall significantly.
- There have been 10 near misses reported during Period 9 the majority of which were reported by the contractor - this is an improvement from last period.
- Targeted support was given to the Princes Street team, which assisted in a successful hand back of a safe and suitable Princes St to the City with an emphasis on safety and quality. Lessons learned from the hand over process will be reviewed and where necessary taken on board for future handovers. There was a significant reduction in the number of MOP incidents during period 9.
- Planned safety tour completion against target were not achieved in the period. This will be rectified in subsequent reporting cycles.

		Data Checked							
Section	Activity	Interdisciplinary Design Check	Hazards	Inspection and Test Plan System	Design Variation/Chang e	As Builts	Asset Register		
Section 1D Princes Street	OLE Bases/Structural Concrete	0.5	NA	11	NA	NA	NA		
Section 2A Haymarket Viaduct	Re start on site 23/11/09	0.5	0.5	1	1	0	NA		
PD	Total (y)	1	0.5	2	1	0	0		
	Max Possible Total (y)	2	1	2	1	1	0		
Total	Percentage P8	19%	69%	89%	50%	74%	21%		
	Percentage P9	21%	73%	90%	53%	73%	50%		

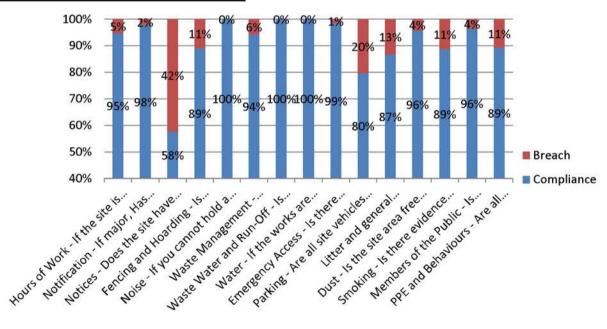
Key - Y = Evidence exists (1) N = No evidence exists (0) NA = Not applicable (-) P = Part evidence in place (0.5)

Due to the handover of Princes Street 3 / 4 Period 9 "Deliver a Safe tram" inspection metrics were held, at Princes Street to ensure records were fully in place. This has been noted as 1 inspection in order that there is no duplication.

A number of actions with regard to improving Deliver a Safe Tram Metrics have been identified and are ongoing:

- Contact now established for all aspects of the Deliver a Safe Tram strategy, with the additional support from BSC helping to provide more meaningful outcomes from the weekly inspections.
- Areas previously inspected are being re-inspected to close out actions.
- Weekly meetings now being held with tie Quality and BSC quality departments.

#### Code of Construction Practice Period 9



CoCP compliance continues to be monitored by **tie** with a number of increases in non compliances being noted during period 9, specifically the increase in non complaince of no smoking within the site. However slight improvements were noted in the compliance of notices/signs and parking on site. The CoCP relaxation process was improved during period 9 and will be rolled out to all relevant staff in the New Year - this should lead to improvements in compliance.

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#### **Progress**

Progress in the Period for INFRACO works reflects a total cumulative completion of 12.5%, an increase of 1.7% against a plan of 3.0%. Works on Princes Street in the period indicate progress of 11.3% against a planned 4.9%, reflecting the efforts to complete these works to the planned opening date.

The cost, programme and risk information in this Period 9 report continues to be based upon an <u>unapproved</u> forecast on the information reported in May 2009.

#### Dispute Resolution (Infraco)

At the end of Period 9 only one item remained in dispute with BSC. This relates to Russell Road and a decision is due on 18/12/09.

tie has instructed works under a Clause 80.15 instruction for 2 of the structures identified in the DRP and work has subsequently started at Carrick Knowe Bridge and Russell Road in the period. As a result of Senior intervention discussions with Bilfinger Berger Principals in relation to agreement on EOT1 and programme, work will also commenced at the following locations in Period 9:

- Haymarket Viaduct Excavation work started on 30/11/2009
- Haymarket Yards to Russell Road removal of vegetation starting 07/12/2009
- Edinburgh Park Bridge Ramps works started 23/11/2009
- Edinburgh Park Bridge to Guided Busway due to start work w/c 07/12/2009 (soil strip / drainage)
- A8 Underpass BT works finished. Piling platform works to follow on with a view to piling rig commencing work w/c 04/01/2010
- Depot Drainage works continue, Estimate to be discussed after re-submission incorporating latest issued drawing

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 early 2010.

#### Commercial Update (MUDFA)

Discussions have continued with Carillion in relation to the Changes, re-measurement and disruption claim as reported in Period 8. More detail can be found in the body of this report. A strategy to conclude Carillion's works on the project has been implemented and Clancy Docwra has been engaed to complted the remaining utilities diversion works.

#### Design

Design approvals status in Period 9 is summarised below:

Phase 1a only	Numbe	r required	Number		
	v31	V51*	Submitted	Granted	
Prior Approvals	49	56	52 (93%)	52 (93%)	
Technical Approvals	71	86	84 (97%)	77 (89%)	

<sup>\*</sup>We have not yet received SDS v51 programme officially. It was submitted by BSC but immediately withdrawn.

There is little evidence of better management of SDS by BSC, and the lack of support in supplying the Design programme only helps to strengthen this opinion coupled with the poor 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. The withdrawn V51 includes further design integration activities and redesign activities, the impact of these will be analysed on receipt of the official SDS programme. **tie** has implemented an extensive programme of site based monitoring to validate & verify the installation of works in line with integrated design assured construction.

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#### Utility works (MUDFA)

Progress on MUDFA works during Period 9 is as follows:

- Progress at the end of period 9 is 97.01% which is up from the 96.1% complete reported at the end of period 08.
- All of the progress achieved in the period are now concentrated around the Haymarket and the York Place to Picardy sections of the route.and
- Carillion works between Constitution Street and Newhaven are complete, and Farrans have been awarded the remainder of the Section 1A utilities diversions which commenced early Period 9.
- Clancy Docwra have taken over the remaining utility work scope in the City Centre. This will be
  to complete the remaining works Post-Embargo Haymarket, Shandwick Place, St Andrews
  Square, York Place, Leith Walk and Constitution St.





- Farrans started works on Utilities in the Forth Ports area, and Clancy Docwra are undertaking diversion works at Lindsay road.
- MUD works at Airport are 98% complete, and due to a BAA requirement a return visit will be required January/February 2010.

#### Tram works (INFRACO)

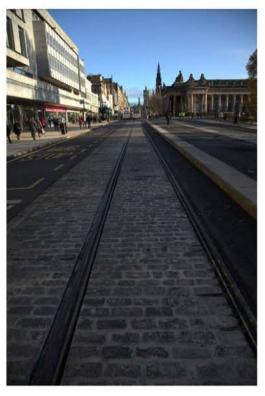
The project team were pleased with the notable and newsworthy success in regard to the opening of Princes Street and the return of buses and taxis which proceeded as planned on 29<sup>th</sup> November 2009.













That said, the project generally continues to experience problems with slow progress on INFRACO works and in particular, the appointment of direct BSC resource and the final appointment of the main package contractors. Some evidence of a remobilisation has however, been demonstrated with BSC re-commenced works at Haymarket Viaduct & Edinburgh Park approach ramps. Other successes in Period 9 are:

- 90% of Track installed on outbound route with approx. 50% of the welding work completed on the Guided Busway section.
- Enabling and piling works on Russell Road Retaining Wall (W4) continued in Period 9, and will restart in Jan 2010 – awaiting new piling rig on site.
- Carrick Knowe Bridge construction recommenced and on revised programme.
- Depot building construction ongoing and on programme.
- Depot site drainage continues
- Haymarket Viaduct works recommenced in Period 9.
- Hilton Car park works were completed during Period 9.
- Murrayfield accommodation works planning approval was granted.
- An agreed way forward for Constitution Street wall with CEC and the funding arrangements for this are still be concluded.

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#### Cost

We continue in this report to reflect an outturn estimate of £533.3m, (including £6.2m for the loss of economies of scale with the cancellation of 1b). 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.

A detailed review of costs was undertaken with Transport Scotland on 10/12/09, and updated milestones and forecasts were presented.

Key cost related items to note in Period 9 are:

- The budget for ETP in 2009/10 is £150.1m (£153.3m inc 1b), which was produced linking the **tie** re-baselined 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 an acceptable outcome.
- The outturn figure reported in P8 for 2009/10 (£122.9m) has been re-assessed in period 9 (£114.5m) using the latest construction milestone live forecast and QS view of changes profiled to the end of the year.
- The latest forecast (£114.5m) 2009/10 includes costs of £3.2m which relate to the demobilisation of Phase 1b Infraco construction contract. A payment of £3.2m was made to the Infraco Contractor in August.
- Funding available from TS for the project in 2009/10 is £149m. The TS share of this year's updated forecast (£114.5m) is £105.0m, giving available headroom of £44.0m.
- The negative figure forecast P10-13 in the table below relates to the net cost to utilities (costbetterment), with betterment being greater than cost in the last quarter.

#### Actual YTD P9 & forecast P10-P13 FY09/10

£m	YTD P9	Forecast P10-P13,09/10	Total FY09/10
Infrastructure and vehicles	54.4	29.6	84.1
Utilities diversions	9.2	-1.6	7.6
Design	1.7	0.9	2.5
Land and compensation	0.8	0.8	1.5
Resources and insurance	11.1	5.4	16.5
Base costs	77.2	35.2	112.3
Risk allowance	0.0	2.2	2.2
Total Phase 1a	77.2	37.4	114.5

- ETP COWD to Period 9 is £77.2m (Period 8 £65.8m) against budget £97.8m. The main drivers for the -£20.6m variance are: the timing of Infraco works costs forecast in 2009/10 offset by MUDFA spend incurred over the original 09/10 budget plan
- 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.

#### Risk & Opportunity

There were twelve risk reviews held in the period. Four items were closed on the Infraco concerns register. There were thirteen draw downs on the risk allowance approved in the period totaling £1,191,219. These are detailed later in this report. This leaves a risk and contingency balance of £2,229,630 (based upon the approved Project Risk Allowance at Financial Close).

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**Lothian Buses** 

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The Project Risk Allowance at financial close was £30,336,196. Drawdowns to the end of Period 9 09/10 now total £28,106,566. Remaining risk balance based on the approved QRA is £2,229,630.

An opportunities workshop was held in Period 7, and the treatment plans have been reviewed and updated in Period 9 with initial progress being made on track related items.

#### Communications & Customer Service

The media activity has been steady, mainly with balanced and positive coverage surrounding two key themes – Edinburgh Sparkles and the re-opening of Princes Street. In terms of the re-opening of Princes Street on 29<sup>th</sup> November, the lead up to the day provided a mixture of positive, balanced and some negative coverage based mainly on scepticism. However, with Princes Street opening on the 29<sup>th</sup> November as planned, there was a significant shift towards much more positive coverage regarding the trams project generally. There were a few exceptions, however, we were able to mitigate these rapidly along with our partners.

The Edinburgh Sparkles campaign in which Edinburgh Trams played a significant role, provided a joint approach to widespread positive coverage of the festive events in the City and in turn providing a platform for Edinburgh Trams being a key stakeholder within the Capital.

There were 20,526 visits to the www.edinburghtrams.com website, making this our busiest period on record. This increase in online activity is both reflected by and attributable to the ongoing success and growth of our social media presence.

Worksites are in the process of being removed across Edinburgh as part of the combined city centre Christmas embargo and goodwill gesture on behalf of Edinburgh Trams. Notifications therefore are aimed at giving businesses and residents a snapshot of the upcoming work and traffic management which is due to commence in January 2010. Updates have also been produced on off road sections of work as well. In particular, updates have been produced for Haymarket, the West End, York Place, Broughton Street and the stretch of work between Newhaven and Constitution Street.

A new booklet of tram facts has been produced which contains 20 key facts on the project. The facts cover a range of topics from why we are building the tram route to tram integration with Lothian bus services alongside general facts and figures relating to the length of the route, number of tram stops etc. The tram facts booklet is available to the general public and will be distributed to Edinburgh City Council as well as being available on the Tram Mock-up.

# Transport Edinburgh Edinburgh Trams Lothian Buses

FOISA exempt
☐ Yes
☐ No

# Period 9 2009/10 - Papers for Consideration

FOISA exempt

☐ Yes

Paper to: TPB Meeting date: 16 December 2009

Subject: Project Change Control Update - Period 9, 2009/10

Preparer: Mark Hamill

# Summary

This paper is to update the Tram Project Board with the current status regarding approved project change orders and their implications on the overall Tram Project Budget. To the end of Period 8, £26.9m had been drawn down from the original risk allowance of £30.3 at Financial Close. In Period 9, an additional £1.19m has been drawn down.

The table below summarises the approved project changes that have financially impacted the project risk allowance since Financial Close in May 2008.

Description	Base cost	Risk	Total
Position at Financial Close			
(PCB)	481,680,811	30,336,196	512,017,007
Changes to end Period 8	26,915,347	-26,915,347	0
Position at end Period 8	508,596,158	3,420,849	512,017,007
Period 9 Changes	1,191,219	-1,191,219	0
Position at end Period 9 (CAB)	509,787,377	2,229,630	512,017,007

#### Changes Approved in Period 9

#### Carrickknowe - works outwith LOD (COP175 - £4,324)

Further to the changes to the Issued for Construction drawings from the Base Date Design Information at the approach embankment north of Carrickknowe Bridge, there was a requirement to carry out additional works outwith the Limits of Deviation. The works included the removal of trees and erection of a new permanent fence. These were considered outwith normal design development.

# Haymarket BDDI - IFC increase (COP185a - £67,315)

This change represents changes beyond normal design development relating to the Haymarket Station Viaduct which **tie** accept are valid changes. This change is an update to COP185 (also Haymarket BDDI - IFC increase) which the Board were advised of in Period 8 and is required to meet the total cost of the agreement with BSC. The total value associated with the structure is £190,000 against estimates of approximately £400,000.

#### Network Rail costs (COP202 - £644,128)

This change reflects a robust review of total Network Rail costs against original budget which has increased as a result of an omission from the original Project Control Budget (PCB). The Network Rail APA (Asset Protection Agreement) 2% Risk Fee was not allowed for in the original Project Control Budget. This change

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reflects the incremental £900K cost to be incurred for this fee, offset by included in the original PCB for Network Rail works.

Boundary Hedge between Gogarburn Tramstop & Depot (COP204 - £5,369)

The provision of the hedge at the toe of the North embankment defines the boundary between the field and the tramway. There is no requirement in general to define the tramway boundaries, however, given the location (International Business Gateway - IBG); this was an insistence from CEC Planning.

# Depot Access Road Specification (COP205 - £78,675)

An increased depth of base course from 110mm to 170mm thick and an increase in the width of the footpath from 2.0m wide to 3.0m wide footway/cycleway was required as a result of post Base Date correspondence between tie/CEC and SDS.

# Changes in Ground Levels from BDDI to IFC drawings at Edinburgh Park Bridge (COP206 - £62,851)

Upon issue of the construction drawings for Edinburgh Park Bridge, the ground levels had changed from the levels shown on the Base Date Design Information. The reason for the change in levels is that excavated material from the Edinburgh Park Development had been spread across the site. This change is the cost of the additional excavation or backfill as a result of the additional excavated material by others. These works are excluded because they are notified departure from the BDDI.

# TRO Infraco Consultation Plans (COP207 - £23,480)

This change was to provide for the settlement reached regarding the dispute over the preparation of plans for and attendance at the informal high-profile public consultation in September 2008.

#### A8 Underpass Existing 1 way BT service (COP208 - £22,847)

This change was the cost of diverting an existing 1-way BT service at the A8 underpass and providing two insurance ducts. This was originally expected to be carried out under the MUDFA contract and is excluded from the Infraco contract.

#### Trial Soil Nailing - Russell Road Underbridge (COP209 - £44,718)

BSC survey investigations highlighted obstructions in the area where the sheet piles are located (on BDDI drawings). A change was granted to BSC to investigate the possibility of using soil nailing in lieu of sheet piling. Should this be successful this change will form the basis of a value engineering opportunity.

# Approach Ramps (COP210 - £185,000)

Soft Ground was identified within the North and South Approach Ramps of Edinburgh Park Bridge. This change is the cost to excavate and backfill to requirement identified by BSC and SDS. These works are excluded because they are unforeseen ground conditions below the earthworks outline.

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# Design Changes for MUDFA (COP213 - £3,527)

This change relates specifically to CR 412 - Standard Details for SW Service Crossings (TQ 494) and CR 413 - Lindsay Rd Gas Design.

No budget provision exists within the design contract for post novation design changes relating to MUDFA/Utilities. This drawdown from the specified risk provision is necessary to provide for these additional costs.

# CEC Requirements to Bring Lochside Av up to Adoptable Standard (COP215a - £40,071)

This Project Change reflects the agreed instruction and estimate relating to Stage 1 design work. The introduction of the tram through the Edinburgh Park owned junction as per the original design raised concerns for CEC. CEC had previously agreed with Edinburgh Park that the junction should not be adopted but it became clear that this would pose a significant risk to the reliable running of the tram and traffic at the junction. As a result CEC considers that it now needs to adopt that junction and it must therefore be brought up to adoptable standards regarding lighting, signage, signals, kerbs and paved areas. This change is to allow SDS to amend the design at this location accordingly.

#### Depot Floor-Pit for turntable (COP219a - £8,914)

This change is for the design of the depot floor to incorporate a manual bogie turntable. The change reflects the agreed change relating to Stage 1 detailed design work. The reason for the design change is to allow SDS to update and align the original design with the Infraco proposals.

#### Decision(s) / support required

The TPB is requested to:

Note the Project Change Control status at Period 9

Proposed	Name:Mark Hamill	Date: 16 December 2009 Title: Risk & Insurance Manager
Recommended	Name:Steven Bell	Date: 16 December 2009 Title: Tram Project Director
Approved	David Mackay on behal	Date: If of the Tram Project Board

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☐ Yes

Paper to: TPB Meeting date: 16 December 2009

Subject: TPB Risk Report Preparer: Mark Hamill

The attached risk register incorporates the five key themes which have been identified by the Chief Executive as being the areas which are fundamental to **tie**'s success in the short and long term. The five themes are:

- 1. Building the Tram
- 2. Preparing for Operations
- 3. Building the Brand
- 4. The Future
- 5. Team

As all the risks are deemed important enough to merit Board attention there is no traditional scoring mechanism for each risk. There is instead a 'Risk Severity Status' column. The 'Risk Severity Status' column indicates if the risk is increasing, remaining constant or decreasing in terms of criticality to **tie** or the project.

The treatment plans are intended to be high-level descriptions of the main actions being taken to manage each risk – these should not be regarded as the only actions underway.

#### Period 9 Update

The table below highlights those issues which have entered DRP, their current status and anticipated timescale for conclusion. Previous DRP outcomes have been reported in earlier papers. The table has been updated to reflect the following:

- The adjudicator reached a decision preferring Infraco's case on 5a and 5b and this is currently under review by tie and tie's legal advisors.
- 5c(B) a hearing is to be held with the adjudicator 15 December 2009 prior to a decision being reached.
- ➤ A an interim agreement has been reached and work is underway to agree a revised project programme by the end of January 2010.
- Six additional issues will enter DRP during Period 10.

DRP No	Subject	Launched	PD Meeting	Position Papers	CEO Meeting	Referral	Decision
5a	Gogarburn	V	1	1	1	1	Decision
5b	Carrick Knowe	1	1	<b>V</b>	1	1	made and under review
5c(B)	Russell Road	1	1	1	1	1	17/12
А	MUDFA Rev 8	1	1	1	1	On	hold
5e	Tower Bridge	P10		e.	,		
5h	Bankhead Drive	P10					
5m	A8 Underpass	P10					
51	Section 7 Drainage	P10					

**Edinburgh Trams** 

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				☐ Yes ☐ No
5k	A8 Underpass Piles	P10		
5i	Baird Drive	P10		

Launched by tie
Launched by BSC

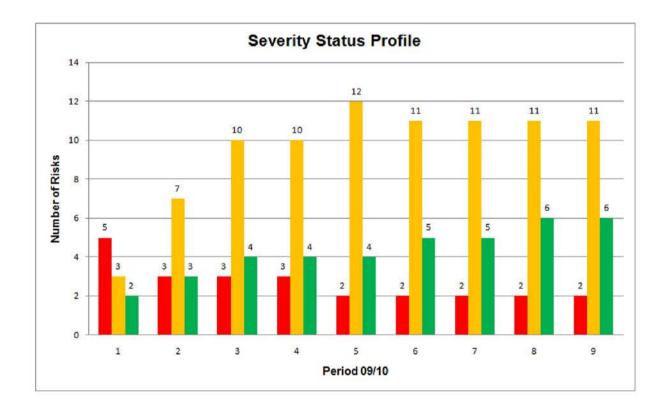
# Risk Register Update

Risk No.4 – Clancy Docwra have been appointed to complete the remaining utility diversions. The contingency plan for the completion of Carillion's work and handover was successfully implemented.

Risk No.7 – Governance changes are planned for 18 December but this is subject to change.

Risk No.15 - Princes Street reopened on programme and this has helped maintain stakeholder confidence in tie's ability to deliver the project.

Risk No.16 – 'Bringing Strategic Clarity' workshops currently being rolled out to all employees. Consultation regarding objectives and bonus scheme now complete.



Prepared by Mark Hamill, Risk and Insurance Manager

Recommended by Steven Bell, Project Director

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	Team				
		Future	`	`	`
Key Themes	Build	the	`		
KeyT	Prepare for	Operations	>	`	
	Build a	World Class Tram	`	`	`
Key Treatment Plans		Period 9 09/10 Update	<ul> <li>Review programme with BSC to agree plan to recover lost time</li> <li>Utilise DRP procedure</li> <li>Implementation of agreed Resolution Strategy underway</li> </ul>	<ul> <li>tie Project Change Panel scrutiny</li> <li>Early notification of issues through weekly meetings and PD Reviews</li> <li>Project Management Panel and PD level monitoring and actions.</li> <li>Enhanced periodic review of all PM costs chaired by CEO</li> </ul>	Weekly change meetings with BSC     Internal review of correspondence 3 times p/w and enhanced legal view as required     tie Project Change Panel scrutiny     Regular one-to-one meetings with BSC Commercial Director and Manager     Internal Audit Plan     Weekly Flash Report     Project Director Reviews     Daily conference call to address programme/delay issues
Risk	Severity	Status	$\leftarrow$	1	1
Risk Description			Failure to agree revised programme and budget with BSC leading to contractual dispute on known or future areas of dispute or known or future changes	Failure to deliver project to acceptable programme and/or budget due to non-contentious cost increases or programme delays	Failure of <b>tie</b> commercial and operational management to control key project areas
Project/	Corporate		Project	Project	Project
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	Team			
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Key Themes	Build the Brand		`	>
Kev	Prepare for Operations			`
	Build a World Class Tram		>	
Kev Treatment Plans	Period 9 09/10 Update	Additional commercial resources employed to deal with CUS claim and DRP issues     Co-location of commercial and legal DRP resources	Outstanding utility works undertaken by Infraco/alternative package contractors     Weekly progress review with tie and Carillion management     Selected packages procured out with delivery partner (Edinburgh Airport, and Forth Ports Estate)     Manage through CUS disputed issues     Contingency Plan to complete Carillion work scope and change-over implemented     Revised management arrangement implemented	Delivery of the 'Safe Tram Strategy'     Manage interface with CEC/TEL/Lothian Buses     Benefits Realisation & Operational Readiness Committee constituted
Risk	Severity Status			$\Longrightarrow$
Risk Description			Failure to complete utility works on time and within budget	Failure to develop an effective tram and bus integration process
Project/	Corporate		Project	Project
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Key Themes	Build	the	2														>																		
. Key	Prepare for	Operations															>																		
	Build a	World	Tram																^																
Key Treatment Plans		Period 9 09/10 Update		including the MD of Lothian	Buses.	<ul> <li>Agreement negotiated with</li> </ul>	Transdev to assign the DPOFA	contract to an in-house	provider, Edinburgh Trams Ltd	(ETL). The agreement takes	effect at the end of 2009 at	which time the staff will TUPE	across to ETL to continue the	mobilisation activities on the	project	Manage workstream within	Prepare for Operations and	Build the Brand	<ul> <li>Effectiveness of model is</li> </ul>	reviewed regularly by TPB / tie	Boards and by Council	<ul> <li>Revisions are widely debated</li> </ul>	prior to implementation and	require broad-based and senior	level approval to proceed.	<ul> <li>Active use of TPB committee</li> </ul>	structure (FCL, Traffic	Management, BROR - Benefits	Realisation & Operational	Readiness Committee)	<ul> <li>Phase 1 governance changes</li> </ul>	expected 18 December 2009	<ul> <li>Initiation of discussions</li> </ul>	regarding Phase 2 governance	changes.
Risk	Severity	Status														C		>						1	ļ	<b>C</b> ,	ì								
Risk Description																Failure to develop an effective	pre-commencement marketing	campaign	Failure of governance model to	oversee and direct the tram	project effectively														
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	Team			
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Key Themes	Build the Brand			
KeyT	Prepare for Operations		<b>&gt;</b>	`
	Build a World Class Tram	`	<b>&gt;</b>	>
Key I reatment Plans	Period 9 09/10 Update	Grant letter to CEC confirming £500m contribution, terms monitored regularly. Assurance provided to Transport Scotland via regular reports and briefings Supplementary grant provided for Gogar Interchange	CEC has formed a multi discipline Tram Contributions Group to monitor identified sources of £45m contribution including developers' contributions. tie is invited to that group.  Tram Project Board to monitor progress towards gaining contributions Council officers and senior politicians attend key regular meetings.  Negotiations with Forth Ports/CEC proving to be very difficult to conclude.	Deliver safety strategies, 'Build Tram Safely' and 'Deliver a Safe Tram' Active risk management and intervention Implement project-wide safety leadership and reputational standards. Initiation of
Risk	Severity Status	1		1
Risk Description		Withdrawal of Scottish Government funding	Failure of CEC to provide funding	Major safety and/or environmental incident / Failure of assurance / Regulatory Enforcement
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Period 9 09/10 Update     Enhanced CoCP reporting –     now implemented and on website     Joint branding project underway with Lothian Buses     Implementation of TEL Business Plan     Implement Prepare for Operation workstream     BROR discussion have commenced     Branding of network     Revenue management to increase public understanding     Constructive and defensive opportunity management (Tram mock-up, installation of tram infrastructure)     See also Treatment Plans for Risk No.11     TRO Strategy     TRO Strategy     TRO Strategy     TRO Strategy approved at CEC Transport Infrastructure and Environment Committee on 22 Sept 2009.     Comms strategy includes	drawings on website for public viewing – going live 12 Oct 09.
Severity Status Status Status	
Failure to develop a commercially viable integrated transport system which is attractive to the travelling public public.  Failure of tie to maintain its reputation Loss of public support leading to loss of political support.  Traffic Regulation Orders are not made in accordance with programme with resultant delay to commencement of tram OFRS date.	
Project/ Corporate Project/ Project	

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Key Themes	Build	the	Brand																																		
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Key Treatment Plans		Period 9 09/10 Update		9 Nov 09 – no surprises	advised. Paper to full CEC in	Domilar key hisiness leader	Regular key business leader	meetings	<ul> <li>Monthly Tram Operating Group</li> </ul>	meetings (tie attendance)	Development and	implementation of strategy	around 'respect' for city during	Tramworks - Princes Street re-	Trailimoins - Lillings Office Le-	opened on programme.	<ul> <li>Publicly thank the City for its</li> </ul>	patience with regard to Princes	Street	Review consolidated 'One	Family' requirements between	tie/TEL/CEC to determine	optimum efficient resource	requirements.	<ul> <li>Implement changes as required</li> </ul>	Introduction of OEM model –	Bringing Strategic Clarity	workshops being rolled out	<ul> <li>Revised objectives and bonus</li> </ul>	arrangement reviewed and	approved by Remuneration	Committee - Consultation	Complete	Review and discuss	opportunities for further phases	and options with appropriate	agencies.
Risk	Severity	Status					1 1	1	Ĵ											E						<u> </u>	>							A 1	1	ļ	
Risk Description	-					loss of stakeholder confidence in	LOSS OF STANDING COMMUNICATION TO THE TRANSPORT	tie's ability to deliver I ram project												Human Resources management;	recruitment and retention of staff													Lack of projects following	completion of Tram project	1200 62	
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2	Project/	Risk Description	Risk		Key Treatment Plans		KeyT	Key Themes	3	
	Corporate		Severity			Build a	Prepare for	Build	The	Team
			Status	)	Period 9 09/10 Update	World Class Tram	Operations	the Brand	Future	
18	Corporate	Core business processes prove to	1	•	Audit Committee oversight of					
		be insufficiently robust	1		Internal Audit of control					
			)		environment, policy and	>		`		
			_		procedures and compliance					
					therewith.					
	Project	Gogar Interchange		•	Indemnity letter from TS re tie's					
		<ul> <li>Impacts on role of tie as</li> </ul>	1		role as Earl Undertaker					
		EARL undertaker	Û	٠	Agreed scope and programme	ź				
		Impact of Network Rail/			to execute design phase	>	`	>		
		Transport Scotland interfaces		•	4-weekly meetings of senior					
					representatives from tie, CEC,					
					NR and TS					

**Edinburgh Trams** 

**Lothian Buses** 

FOISA exempt

☐ Yes

Paper to: Tram Project Board Meeting date: 16 December 2009

Subject: Council Contributions

Agenda item:

Preparer: Alan Coyle (CEC)

# **Executive summary**

The report provides an update on the progress made to date in securing the Council's contribution of £45m towards the tram project, and in identifying contingency options should a funding shortfall arise.

It is recommended that the Project Board notes the current position and endorses the approach being taken by the Council to review the situation on an ongoing basis.

# Impact on programme

None.

# Impact on budget

The current budget assumes total funding of £545m for the project, of which £45m is to be contributed from the Council. In addition, any cost overrun above the £545m will have to be fully funded by the Council, for which funding sources will require to be identified.

#### Impact on risks and opportunities

The financial risk associated with the outlined approach lies with the Council. If future contributions from developers and/or capital receipts fail to materialise, the Council will be required to identify alternative sources of funding to meet its Tram commitments.

Given the current economic climate and property market, it is highly unlikely that the planned £45m contribution will be exceeded, however were things to change in the coming years, any additional funding generated could be used to offset any project overspend.

#### Impact on scope

The Council has already committed to completing the full scope of Phase 1a of the project, as reaffirmed at the Council meeting of 20 August 2009.

**Edinburgh Trams** 

**Lothian Buses** 

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☐ Yes

# Decision(s) / support required

To note the current position of the Council's contribution and to endorse the approach to review this on an ongoing basis.

Proposed	Name Title	Date:-
Recommended	Name Title	Date:-
Approved	David Mackay on behalf of the Tram	Date:

#### 1.0 Introduction

The purpose of this report is to update the Board on the work that is ongoing in securing the Council's £45m contribution and exploring the potential of securing additional funding. It provides an update on progress already made; analysis of the impact of the economic downturn on the likelihood of achieving the required amount; risks associated with the sources of funding; and contingency planning options being considered should there be a shortfall in the planned contribution, or should additional funding be required from the Council in the event of project costs running over £545m.

The report looks at the four main elements of funding, namely:

- Council Cash
- Council Land
- Developers Contributions Cash and Land
- Capital Receipts

# 2.0 Background

The Council committed to funding £45m towards the Tram project, made up from a number of sources, as shown in Table 1 below. Having been reported to Council as part of the project's Final Business Case, the funding strategy was externally assessed by DTZ in November 2007 to ascertain that the assumptions therein were sound.

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□ Yes □ No

The planned composition of the contribution, together with the amount achieved to date, is shown in Table 1 below, and each element is then considered in detail in the following sections of this report:

Table 1

Source	Planned Contribution £m	Achieved Contribution £m
Council Cash	2.5	2.5
Council Land	6.2	6.2
Developers Contributions - Cash	25.4	3.2
Developers Contributions - Land	1.2	1.2
Capital Receipts (Development Gains)	2.8	0.0
Capital Receipts	6.9	2.0
Total	45.0	15.1

# 3.0 Council Cash (£2.5m)

The Council contributed £1m to the project from the 2005/06 Capital Programme, with a further £1.5m contributed to the project in from the Capital Programme in 2007/08.

# 4.0 Council Land (£6.2m)

Council Land estimated at £6.2m has been gifted to the project.

# 5.0 Developer Contributions

#### Background

The guideline on Tram Developers Contributions was approved by Planning Committee on 19 December 2007. The objective of the guideline seeks to gain Developers Contributions where the tram is considered to address the transport impacts of a development. In such cases, it is deemed that the development should make an appropriate contribution towards the construction of the tram system and associated public realm.

#### Current Position

The Council has now concluded a number of agreements securing contributions towards the project. £3.2m has been paid to the Council to date in the form of tram-related Developers Contributions, with a further £1.2m of land contributed to the project by Developers.

There are a significant amount of potential Developers Contributions currently at various stages of the Planning process. Table 2 below shows the estimated amounts of contributions at each stage of the process.

Table 2

Breakdown of Phase 1a Contributions	
Tram Cash	Value (£m)
Amount received	£3.2
Amount in concluded legal agreements (where development has commenced)	£2.2
Amount in concluded legal agreements (where development has	24.0
not commenced)	£4.6
Minded to grant/Pending Consideration	£6.3
Potential Total	£16.30

#### **Potential Future Contributions**

A review was undertaken by DTZ in Summer 2009, to consider the impact on Developers Contributions of the change in market conditions following the economic downturn, and to assess whether the Council's strategy for delivering its contribution to the tram project remains competent and achievable. An update on the outcome of this work was presented to Council on 20 August 2009, at which time the intention to continually review the Council funding contribution position was agreed.

It has since been decided that the work required to review the funding contribution can be carried out by Council staff, rather than relying on external consultants. This decision was taken as the Council's approach was endorsed as being sound by DTZ and is also a less costly alternative. Therefore, a group comprising staff from Planning, Estates and Finance have been tasked with undertaking this work.

It is intended that a review of contributions and capital receipts received to date, progress on developments and market indicators will be carried out on

# **Transport Edinburgh**

**Edinburgh Trams** 

**Lothian Buses** 

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□ Yes □ No

a 6-monthly basis and reported to the Tram Internal Planning Group of the Council and Tram Project Board in due course. Updated information will be introduced to the Council's tram contribution financial model, to determine the extent and cost of the Council's borrowing requirement, and to identify any funding shortfall.

Whilst DTZ's review concluded that economic recovery is likely during the next 5 years, and that the level of Developer Contributions received should pick up accordingly, longer term borrowing may be necessary to meet the Council's cashflow obligations on the project until such time as the required contributions are received. In addition, there remains significant risk around the likelihood of specific contributions materialising, which needs to be monitored. At this time, the highest risk in relation to Developer Contributions is if the anticipated contribution from Forth Ports fails to materialise.

As construction on the project continues, and contractual disputes are resolved, these reviews will also incorporate any additional funding required from the Council, should project costs rise above £545m.

#### **Next Steps**

The following workstreams are being undertaken as part of the commitment to continually review the Council's contribution:

- On-going monitoring of Developer Contributions and Capital Receipts received, and those that have been agreed but not yet received.
- Updating of financial model as and when project cost updates become available to establish Council's borrowing requirements.
- Contingency planning to identify alternative sources of funding in the event of a Developers Contributions shortfall or project cost overspend.

# 6.0 Capital Receipts (£9.7m)

There are number of Council-owned sites adjacent to the tram route that may be marketed. The original estimate was that £9.7m could be generated from the sale of these sites; however the most recent assessment reduced this sum to £7.4m.

In addition, a further site at Eastern Industrial Estate has since been identified which could generate a further £2m contribution to the project. It was initially hoped that this money would be received during 2009/10, but it is likely this sale will now be postponed until the economy recovers.

As described in section 5 above, the review of the Council's contribution will also include an assessment of capital receipts.

# 7.0 Other Funding Sources

Initial contingency planning has so far highlighted options which may be available to the Council in the event that additional funding is required, in excess of the £45m previously agreed. These options include a controlled amount of prudential borrowing with debt repayments funded through TEL profits, potential leasing arrangements or the Council's revenue budget; or through identification of future capital spending when considering the roll forward of the Council's capital programme.

Once the outcomes of the disputes with the Tram infrastructure contractor are known, the Council will have a better understanding of anticipated final costs on the project, which will allow for more detailed planning to be carried out.

#### 8.0 Risks

The risks for each element of the contribution are set out in the following table:

Table 3

Element	Risks	Management Action
Council Cash and Land	This is secured and there is no longer any risk associated with it	None required
Developers Contributions	<ul> <li>Development does not take place</li> <li>Development is slower than anticipated</li> <li>Interest rates change</li> <li>Inflation/deflation on indexed linked contributions</li> <li>Changes to Planning legislation adversely affecting CEC's ability to collect contributions</li> <li>Successful legal challenge to tram contributions policy</li> <li>Failure to secure agreement with Forth Ports means that amount that can be borrowed under</li> </ul>	<ul> <li>Ensure amount borrowed is based on conservative development assumptions</li> <li>Seek legal advice on all changes to tram contribution policy</li> <li>Active engagement with Scottish Executive on all proposed changes to planning legislation.</li> </ul>

# **Transport Edinburgh**

**Edinburgh Trams** 

**Lothian Buses** 

		Yes
	Prudential Code is significantly reduced	
Capital Receipts	<ul> <li>Inability to identify sufficient capital receipts to fund the tram project and the rest of the Council's capital programme</li> <li>Change in local economic condition makes it difficult to sell sites within timescales and/or reduces eventual Capital Receipt</li> </ul>	Ensure tram is prioritised when capital planning decisions are taken

FOISA exempt

#### 9.0 Conclusion

The Council is committed to providing funding of £45m towards the tram project and is monitoring the various elements making up this amount to ensure that it can be achieved.

Whilst it is recognised that there are risks associated with this funding, this is being managed by the Council, where possible, and other funding sources are being investigated to ensure that contingencies can be put in place should a funding shortfall in the £45m be identified, or additional funding be required.

As part of the continual review of the Council's contribution, a full update of the position will be carried out every 6 months and reported to the Council's Internal Planning Group and Tram Project Board.

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	issue:	Issue I	
Delivery Organisation Period Progress Report	Progress Meeting Date:	Period 09	

ARM Risk ID Cause

1077

	Action	T Glazebrook	S Bell	S Bell	SBell	S Bell
	Due	30-Jun-09	30-Jun-09	14-Aug-09	10-Aug-09	17-Dec-09
	Current	Complete	Complete	Complete	Complete	On Programme 17-Dec-09
	Previous	Complete	Complete	Complete	Complete	On Programme
	Treatment Strategy	Establish a process which will act as a control mechanism for design changes. (If one exists already then ensure process is complied with)	Intensive Mediation Marathon 29/6/09 to 6/7/09 to try and resolve issues.	Mediation resulted in no overall agreement on BDDI - IFC atthough 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)	Resolution Strategy approved - 1st DRP to go 10th August, audit requests to BSC for information going w/c 3.8.09	Of the issues previously highlighted as going through DRP, 1 has been ruled in favour of tie, 2 have been agreed, 2 have been ruled in BSC'S favour and this is being reviewed by tie, Further issues are due to enter DRP in December 09 and January 10.
0910 Period 9 - Primary Risk Register	Risk Owner Significance Black Flag	(H)				
Period 9 -	Risk Owner	S Bell				
0910	Effect	Additional cost and programme delay				
	Event	Tramworks price based on a design which may have been altered. Unclear who authorised design change.				
	ID Cause	Base Date Design Information to issued For Constructions (BDDI-IFC). Lack of visibility of design changes between November 2007 and May 2008				

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		0910	0910 Period 9 - Primary Risk Register			
ARM Risk ID Cause	Event	Effect	Risk Owner Significance Black Flag	Treatment Strategy	Previous	Current
	Excavation of soft, unsuitable material below Earthworks	Additional cost	F McFadden High-25.00	Donaldsons to carry out surveys	Complete	Complete
	outline			Extent of soft ground being investigated. External specialist advice deployed.	On Programme	On Progra
Unreasonable behaviour of BSC commercial management	Unrealistic estimates being submitted for potential changes	Programme delay while disputes regarding	F McFadden High 25.00	Additional resource from TNT	Complete	Complete
				Agreed with BSC for independant evalutation to get benchmark	Complete	Complete
				All estimates to be scrutinised by the commercial team and, where appropriate, challenge made to BSC. Additional resource (T&T) being used to check estimates to reduce delay.	On Programme	On Progra
	Roads throughout works require Programme impact plus full depth reconstruction additional costs. £1.5m	Programme impact plus additional costs. £1.5m	F McFadden High - 24 00	Carry out surveys to confirm extent of roads requiring full depth	Complete	Complete

ID Cause	Event	Effect	Risk Owner	Risk Owner Significance Black Flag	Treatment Strategy	Previous	Current	Due	Action
	Excavation of soft, unsuitable material below Farthworks	Additional cost	F McFadden	High-25-00	Donaldsons to carry out surveys	Complete	Complete	30-101-09	CNeil
	outline				Extent of soft ground being investigated. External specialist advice deployed.	On Programme	On Programme	31-Dec-09	M Paterson
Unreasonable behaviour of BSC	Unrealistic estimates being	Programme delay while	F McFadden	Hgh - 25 60	Additional resource from TNT	Complete	Complete	30-Jul-09	M Paterson
		estimates are resolved			Agreed with BSC for independant evalutation to get benchmark.	Complete	Complete	30-Jul-09	M Paterson
					All estimates to be scrutinised by the commercial team and, where appropriate, challenge made to BSC. Additional resource (T&T) being used to check estimates to reduce delay.	On Programme	On Programme 30-Dec-10	30-Dec-10	M Paterson
	Roads throughout works require Programme impact plus full depth reconstruction additional costs. £1.5m cap applies to only 4 areas.	Programme impact plus additional costs. £1.5m cap applies to only 4 areas.	F McFadden	Hun-24.00	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 Programme	On Programme 31-Dec-09	31-Dec-09	M Paterson
SDS contractor does not deliver the required prior and technical	SDS contractor does not deliver the Delay to IFC drawings beyond required prior and technical V31 Programme	Delay to programme with additional resource costs	D Sharp	Hrgh - 23 90	Evaluation of prior approval programme	Complete	Complete	31-0ct-08	D Sharp
approval consents in line with SDS V31		and delay to infraco. Impact upon risk balance.			Fortnightly Meetings of Approvals Task Force	On Programme	On Programme 31-Mar-10	31-Mar-10	D Sharp
					Hold formightly Roads Design Group	Complete	Complete	31-Dec-07	T Glazebrook
					Informal consultation prior to statutory consultation	Complete	Complete	31-Mar-09	T Glazebrook
					Integrate CEC into tie organisation/accomodation (office move)	Complete	Complete	4-Jun-07	T Glazebrook

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			0910	Period 9 - I	0910 Period 9 - Primary Risk Register					
ARM Risk ID Cause		Event	Effect	Risk Owner	Risk Owner Significance Black Flag	Treatment Strategy	Previous	Current	Due	Action
279		Third party consents including Delay to programme; Network Rail consent are denied transfer response by or delayed.	Delay to programme; Risk of transfer response by hidders is to return risk to	C D Sharp	Hgh=23.00	Additional EMC modelling to give better info to NR	Complete	Complete	31-Dec-07	C Kerr
			tie; Increased out-turn cost if transferred and also as a result of any delay due to	# 6		CEC Planning - mock application by SDS	Complete	Complete	31-Dec-07	T Glazebrook
			inflation.			Draft depot and station change proposals to NR	Complete	Complete	31-Jan-08	ASim
						Fortnightly meetings of Approvals Task Force	On Programme	On Programme 31-Mar-10	31-Mar-10	D Sharp
						Identify fallback options	Complete	Complete	31-Aug-07	T Glazebrook
						Monitoring and tracking through the 3rd party rep	Complete	Complete	30-Jun-09	D Sharp
						Monitoring of BBS - 12 week look ahead	On Programme	On Programme	14-Jul-11	R Bell
						Obtain critical consents prior to financial close	Complete	Complete	31-Jul-08	T Glazebrook
Political and/o	Political and/or Stakeholder objectives change or require design developments that constitute a	Political and/or Stakeholder Amendments to design scope objectives change or require design from current baseline and developments that constitute a functional specification.	Programme delay as a result of re-work. Programme delay due late	D Sharp	HBh-27.00	Close working relationship with CEC and stakeholders	On Programme	On Programme	31-Jan-11	D Sharp
Charlet of Scope, retaining Department requires scope and above baseline scope to give approval (may be as of fack of agreement over interpretation of planning le requirements).	claring to scope, Training 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).	<u>.</u> ≢	requirements and fack of resolution; Scopelcost creep (dealt with through change process); Project ultimately could become unaffordable.			Weekly critical issues meeting	Complete	Complete	31-Jul-08	T Glazebrook

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Edinburgh Tram Project

0	ARM RISK ID Cause	Event	Effect	Risk Owner S	Risk Owner Significance Black Flag	Treatment Strategy	Previous	Current	Due	Action
a z E e	Political and/or Stakeholder Major single safety incident (including a dangerous occurrence) construction during construction	Safety incident during e) construction	Delay (potentially critical) due to HSE investigation and rework. PR risk to tie	F McFadden	196-21.00	All Site Staff to get CSCS or equivalent	On Programme	On Programme 30-Jan-11	30-Jan-11	C McLauchlan
3			and stakeholders.			Develop and Implement Incident Management Processes	Complete	Complete	27-Apr-07	T Condie
						HSQE Audits, site inspections and Management Safety Tours to be carried out	On Programme	On Programme 31-Dec-10	31-Dec-10	B Cummins
						Safety Induction to be carried out for On Programme all site staff	On Programme	On Programme 31-Dec-10	31-Dec-10	B Cummins
						Site Supervisors to be appointed by tie	Complete	Complete	28-Feb-07	S Clark
						The tie "Safety" bus is being used to deliver safety take & culture surveys to the contractors workforce.	On Programme	On Programme	31-Dec-09	B Cummins
2002	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities	Unknown or abandoned assets impacts scope of Infraco work	Re-design and delay as investigation takes place and solution implemented, increase in Capex cost as	C Neil	Hgh - 20.00	GPR surveys in areas where there are likey to be services	Complete	Complete	1-Apr-07	T Glazebrook
8 5	assets; known redudant utilities; unknown live utilities; unknown		a result of additional works.			Infraco trial holes where applicable.	On Programme	On Programme 31-Jan-10	31-Jan-10	P Dobbin
E	redundant utilities.					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 Programme	On Programme 31-Dec-09	31-Dec-09	C Neil

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Edinburgh Tram Project

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	Issue:	Issue 1	
Delivery Organisation Period Progress Report	Progress Meeting Date:	Period 09	

ARM Risk ID Cause

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		0910 P	eriod 9 - Pr	0910 Period 9 - Primary Risk Register					
ID Cause	Event	Effect	Risk Owner S	Risk Owner Significance Black Flag	Treatment Strategy	Previous	Current	Due	Action
Legal challenge. Extension of statutory consultation process. Large number of objections. TRO	Delay in achievement of TRO(s) due to a large number of public objections and/or a legal	Requirement to start construction using TTROs	D Fraser	10th = 20 00	Obstructions and voids survey, Comms strategy to include provision of process and drawings on website for public viewing	Complete	Complete	30-Sep-09	S Clark
process is subject to a profit hearing process.	construct Infraco.				TRO strategy approved by board, discussion to be held with CEC head of transport to reduce risk of legal challenge.	Complete	Complete	31-0ct-09	S Clark
					TRO Strategy to CEC Transport, Infracstructure and Environment Committee on 22 Sept 09	Complete	Complete	22-Sep-09	D Fraser
					Use of TTROs to undertake construction of permanent works in advance of permanent TROs being approved. Statutory consultation complete 9. Nov 09 – no surprises advised. Paper to full CEC in January 2010.	On Programme	On Programme 30-Jan-11	30-Jan-11	A Sim

# Period 9 Transport Scotland report Sections 2-7

On following pages are Sections 2-7 of the Transport Scotland report (Section 1 is the Project Directors report).

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# 2 Progress

#### 2.1 Overall

The cost, programme and risk information in this Period 9 report continues to be based upon an <u>unapproved</u> forecast on the information reported in May 2009. This will be updated once agreement is reached with BSC on a new revised programme. Work is ongoing to this end, and the current expectation is that this will be achieved at the end of January 2010.

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 and of a suitable content 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 v51 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated design programme and validation

Agreement was reached without furthering the DRP process on the MUDFA Rev 8 dispute and this comes with a commitment to develop a new mitigated programme. This will be prepared during the first quarter of 2010 with a first draft of this prepared by the end of January 2010. This is significant as it should deliver a programme upon which costs & programme can be re-baselined and give certainty for our Stakeholder communications.

The **tie** live programme currently predicts an Open for Revenue Service date in mid Dec 2012. This has slipped since the 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, York Place and Newhaven, alternative delivery arrangements are in place to mitigatefurther slippage.

Section	Description	Contract Programme Rev.01	BSC Forecast (P09)	BSC Movement in Period (Cal Days)	tie Live Forecast (P09) Rev.01**
Section A	Depot completion	01-Jun-10	20-Jun-11	-17	10-May-11
Section B*	Test Track Available	01-Jul-10	07-Nov-11	-28	12-Dec-11
Section C	All Phase 1a Construction complete	10-Mar-11	26-Jun-12	-04	19-Jun-12
Section D	Open for Revenue Service	06-Sep-11	23-Dec-12	-04	16-Dec-12

<sup>\*</sup>The interpretation is that Sectional Completion "B" means that Test Track is available for Tram movements.

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.

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.

<sup>\*\*</sup> V51 information used.

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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

# 2.2 Dispute Resolution

# Dispute Resolution (Infraco)

At the end of Period 9 only one item remained in dispute with BSC. This relates to Russell Road and a decision is due on 18/12/09.

DRP No	Subject	Launched or planned	PD Mtg	Position Papers	CEO Meeting	Referral	Decision
5a	Gogarburn	1		\ \	√ √	√	Decision
5b	Carrick Knowe	7	1	1	V	1	made and under review
5c(B)	Russell Road	1	1	1	1	1	17/12
Α	MUDFA Rev 8	1	1	<b>V</b>	1	On	hold
5e	Tower Bridge	P10					
5h	Bankhead Drive	P10					
5m	A8 Underpass	P10					
51	Section 7 Drainage	P10					
5k	A8 Underpass Piles	P10					
5i	Baird Drive	P10					

Launched by tie
Launched by BSC

We continue in this report to reflect an outturn estimate of £533.3m (including Phase 1b). 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

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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.

tie has instructed works under a Clause 80.15 instruction for 2 of the structures identified in the DRP and work has subsequently started at Carrick Knowe Bridge and Russell Road in the period. As a result of Senior intervention discussions with Bilfinger Berger Principals in relation to agreement on EOT1 and programme, work will also commenced at the following locations in Period 9:

- Haymarket Viaduct Excavation work started on 30/11/2009
- Haymarket Yards to Russell Road removal of Vegitation starting 07/12/2009
- Edinburgh Park Bridge Ramps works started 23/11/2009
- Edinburgh Park Bridge to Guided Busway due to start work w/c 07/12/2009 (soil strip / drainage)
- A8 Underpass BT works finished. Piling platform works to follow on with a view to piling rig commencing work w/c 04/01/2010
- Depot Drainage works continue, Estimate to be discussed after re-submission incorporating latest issued drawing

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 early 2010.

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.

#### Commercial Update (MUDFA)

Changes - £5.5 million pounds of change has finally been agreed with Carillion in the period, this being within forecast allowances and substantially reducing the risk to the final cost for this element of the works.

The remaining changes are being reviewed and CUS require to provide substantiation of the amounts claimed. It is anticipated that discussions regarding these changes will be concluded by the end of January '10. However Carillion continue to introduce requests/changes for additional monies under headings not previously notified. Therefore despite agreement of a significant value the difference between the parties has not reduced.

Remeasurement of Works – Remeasurement of Work Sections is progressing with 20 No sections available. The value of the work has been agreed with Carillion for 8 No sections with a further 11No sections remeasured and the value of the work under discussion. The remaining as- built drawings will be available by the end of the next period and it is anticipated that the works will be completely remeasured by the end of Jan'10. Meetings have taken place to agree the value of the measured sections however Carillion have taken this opportunity to re evaluate significant proportions of their works and agreement has not yet been reached in any additional sections.

Disruption Claim – No further information has been submitted by Carillion in the period and discussions are continuing to try agree how the claim, may be conclude. it is likely that it will require formal dispute resolution.

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#### 2.3 Design

#### IFC Design

The submitted SDS Design programme at v51 was subsequently withdrawn by BSC with no reasons given. At the time of writing BSC have been unable to provide reasons for the programme withdrawal or provide robust dates for a re-submittal.

Approvals and Consents are measured at V51 and are progressing as follows:

- IFCs Phase 1a: 89 issued out of 126 (figures in this report reflect the dates and progress shown in the unofficial version of v51 but do not include the 91 new IFCs included in v51. These will be reviewed once the official version of v51 is submitted.);
- Murrayfield Accommodation Works granted in Period 9 raising the number of Prior Approvals granted to 93%. 4 left to be submitted (the RBS Gogarburn Tramstop, Modifications to Murrayfield TS retaining Wall, Gogar Interchange, Canopy & Boundary Treatment at Airport Kiosk) and 4 left to be granted;
- There has been an increase to the number of Technical Approvals granted (from an increased no. of TAA's), two remaining to be submitted 9 left to be granted;
- Structures approvals are progressing well 5 to date remain to be approved and all but
   1 of the original structures have been approved (Murrayfield Stop RW);
- Roads approvals One area remains outstanding for Technical Approval in Phase 1a (1C2- Picardy Place to St Andrew Square);
- Scottish Water has sent formal acceptances to BSC for all sections with the exception of 1C2 (Picardy Place to St Andrew Square); ) & 1C1 (McDonald Rd to Picardy Place).
- 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.

Design approvals status in Period 9 is summarised below:

Phase 1a only	Numbe	r required	Number	
÷.	v31	V51*	Submitted	Granted
Prior Approvals	49	56	52 (93%)	52 (93%)
Technical Approvals	71	86	84 (97%)	77 (89%)

<sup>\*</sup>We have not yet received SDS v51 programme officially. It was submitted by BSC but immediately withdrawn.

There is little evidence of better management of SDS by BSC, and the lack of support in supplying the Design programme only helps to strengthen this opinion coupled with the poor 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. The withdrawn V51 includes further design integration activities and redesign activities, the impact of these will be analysed on receipt of the official SDS programme.

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.

Reasons for design slippage are being reviewed and recorded twice monthly at the design taskforce meeting; which is focused on resolving outstanding design issues. **tie** is identifying and implementing opportunities to mitigate the impacts of this slippage.

## 2.4 Utility works (MUDFA)

Progress on MUDFA works during Period 9 is presented below (this excludes the remaining utility works being undertaken outwith the MUDFA contract between Cosntituation Street and Newhaven). Progress has slowed significantly due to the close-down of worksites for the December Embargo and the transfer of remaining workscope from Carillion to Clancy Docwra.

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Rev.08 Figures - Period 09 2009-10	P	eriod	Delta	Cumi	ulative	Delta
MUDFA PERIOD 09 PROGRESS	Plan	Actual	1	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%	100.0%	0.0%
Section 1c McDonald Road to Princes Street West	0.0%	1.9%	-1.9%	100.0%	91.2%	-8.8%
Section 1d Princes Street West to Haymarket	0.0%	2.4%	-2.4%	100.0%	96.4%	-3.6%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	0.0%	1.2%	-1.2%	100.0%	96.3%	-3.7%
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%
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	0.0%	0.9%	-0.9%	100.0%	97.0%	-3.0%

Progress on MUDFA works during Period 9 is as follows:

- Progress at the end of period 9 is 97.01% which is up from the 96.1% complete reported at the end of period 08.
- All of the progress achieved in the period are now concentrated around the Haymarket and the York Place to Picardy sections of the route.and
- Carillion works between Constitution Street and Newhaven are complete, and Farrans have been awarded the remainder of the Section 1A utilities diversions which commenced early Period 9.
- Clancy Docwra have taken over the remaining utility work scope in the City Centre. This
  will be to complete the remaining works Post-Embargo Haymarket, Shandwick Place, St
  Andrews Square, York Place, Leith Walk and Constitution St.
- Farrans started works on Utilities in the Forth Ports area, and Clancy Docwra are undertaking diversion works at Lindsay road.
- MUD works at Airport are 98% complete, and due to a BAA requirement a return visit will be required January/February 2010.

### 2.5 Tramworks (INFRACO)

The project team were pleased with the notable and newsworthy success in regard to the opening of Princes Street and the return of buses and taxis which proceeded as planned on 29<sup>th</sup> November 2009.

Progress in the Period for INFRACO works reflects a total cumulative completion of 12.5%, an increase of 1.7% against a plan of 3.0%. Works on Princes Street in the period indicate progress of 11.3% against a planned 4.9%, reflecting the efforts to complete these works to the planned opening date.

The project does however, continue to experience problems with slow progress on 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 Tower Place Bridge, Russell Road bridge, Murrayfield pitches Retaining Wall and Baird Drive Retaining Wall. Work on hold at Gogarburn Bridge due to issue regarding OLE pole position at the East abutment.

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During Period 9 however, BSC has re-commenced works at Haymarket Viaduct & Edinburgh Park approach ramps. Works in Section 2A (corridor from Haymarket to Roseburn junction) to commence site clearance prior to track works are due to start in Period 10, with a planned completion at the end of April 2010.

#### Successes in Period 9 are:

- Princes Street reopened to Buses & Taxis on Sunday 29<sup>th</sup> November 2009 as planned.
- 90% of Track installed on outbound route with approx. 50% of the welding work completed on the Guided Busway section.
- Enabling and piling works on Russell Road Retaining Wall (W4) continued in Period 9, and will restart in Jan 2010 – awaiting new piling rig on site.
- Carrick Knowe Bridge construction recommended and on revised programme.
- Depot building construction ongoing and on programme.
- Depot site drainage continues
- Haymarket Viaduct works recommenced in Period 9.
- Hilton Car park works were completed during Period 9.
- Murrayfield accommodation works planning approval was granted.
- An agreed way forward for Constitution Street wall with CEC and the funding arrangements for this are still to be agreed.

Work has continued on a number of worksites including:

#### Section 1C/1D: City Centre Princes Street - opened 29th Nov 09:

- Snagging continuing and due for completion in Period 10
- Frederick Street and Castle Street Junctions Zebra crossing installation scheduled to be in place mid-Dec 09
- A revised traffic signal controlled junction at George Street/Hanover has been commissioned as part of the works.

#### Section 2: Haymarket to Roseburn Junction

Site clearance prior to track works

#### Section 5A Roseburn to Balgreen Road

- Piling works on W4 retaining wall commenced 03 November 2009, however stopped on 05/11/09 due to damage to the auger bits due to underground obstructions.
- Additional SI commenced and completed.
- Cased piling rig will not be available until Jan10 to recommence piling to RW W4.
- Demolition of the JB McLean Lean-to commenced w/c 23/11/2009.

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

- Carrick Knowe Bridge South abutment and North abutment wall poured.
- Guided Busway Track installation commenced and progressing well.
- Bankhead Drive No works by BSC during the period.
- Edinburgh Park bridge Pier 1 & 2 & the south abutment cantilever poured. BSC commenced excavation for the north approach and the south approach ramp.

## Section 5C Edinburgh Park Central to Gogarburn:

- A8 underpass combined phase 1 & 2 remains on hold.
- Works to slew BT 6 way completed.
- Piling works programmed to commence 4<sup>th</sup> January 2010.

#### Section 6 Gogar Depot

- Depot Access Road and Depot Building Foundations started on 31<sup>st</sup> August 2009 and continuing with Drainage works;
- Depot Building Steelwork erection commenced 5 Oct 09 and the majority of primary and secondary steel works have been erected. Roof cladding works commenced during Period 9.

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#### Section 7 Gogarburn to Edinburgh Airport

- Gogarburn Bridge: Beam West Abutment completed and bridge deck false work removed
- Culvert 3: Concrete works completed during period 9.
- Hilton Hotel: works completed wc07/12/09.
- EAL INFRACO works confirmed to commence 11/1/10.
- S.I. commenced week 4 at Gogar Landfill

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. This is the highest number of construction milestones completed in a period to date.

Milestones	Perio	d 08	Cumulative (S	hort-Term)	Contract
	Planned	Actual	Planned	Actual	Planned to P09
Prelims	2	2	57	57	57
Construction	29	19	72	70	706

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 09 2009-10	P	eriod	Delta	Cumi	ulative	Delta
INFRACO PERIOD 08 PROGRESS (Contract Rev.01 Programme)	Plan	Actual		Plan	Actual	
Section 1a Newhaven to Foot of the Walk	3.1%	0.0%	-3.1%	39.1%	0.0%	0.0%
Section 1b Foot of the Walk to McDonald Road	3.0%	0.0%	-3.0%	51.4%	1.4%	-0.1%
Section 1c McDonald Road to Princes Street West	5.4%	0.0%	-5.4%	30.3%	0.0%	-10.8%
Section 1d Princes Street West to Haymarket	4.9%	11.3%	6.4%	84.9%	39.2%	-3.5%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	4.0%	2.2%	-1.9%	47.5%	7.7%	-4.2%
Section 2 Haymarket to Roseburn Junction	5.0%	1.1%	-3.9%	95.1%	12.9%	0.0%
Section 5a Roseburn Junction to Balgreen Road	2.0%	0.0%	-2.0%	80.4%	3.5%	0.0%
Section 5b Balgreen Road to Edinburgh Park Central	1.5%	1.8%	0.2%	88.2%	23.1%	0.0%
Section 5c Edinburgh Park Central to Gogarburn	3.8%	1.4%	-2.4%	81.6%	4.2%	0.0%
Section 6 Gogar Depot	2.0%	1.2%	-0.8%	93.2%	13.9%	0.0%
Section 7a Gogarburn to Edinburgh Airport	3.0%	3.9%	0.9%	66.9%	34.0%	0.0%
Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	2.4%	1.5%	-0.9%	84.6%	15.8%	0.0%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	3.0%	1.7%	-1.3%	69.3%	12.5%	-3.4%

Section	Commentary
Section 1a Newhaven to Foot of the Walk	Section 1A4 Lindsay/Newhaven Road under review with both design and construction methodology challenges. Draft OSS/programme under review.  Contract awarded to Clancy Docwra to allow Utility diversions to be carried out for W1 Lindsay Rd RW which releases Infract works in this section. Temp. Utility diversions at bridge complete. Infraco Bridges works start date depending on BDD – IFC agreement.  Utility Diversions Transferred in Section 1A1 Plates 1-10 transferred from Utilities.  Plates 15, 16, 17 & 18 (Baltic St Junction) Novated from Utilities.Design outstanding (IFA's Due MID November 2009)

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Section 1b Foot of the Walk to McDonald Road Roadworks due to commence post Leith embargo delayed to Jan 10 awaiting MUDFA completion, following abandonments and completion of additional works. Cabling work will not be finished by that time which will take 22 weeks to complete. Draft OSSA programme under review. Section 1c McDonald Road to Princes Street West Roadworks due to commence post Leith embargo between McDonald Rd and Picardy Place delayed to Sep-09 awaiting MUDFA completion. Now likely to start Jan 10 following abandonments and completion of additional works. Cabling work will not be finished by that time which will take 22 weeks to complete. Section between Picardy Place and St Andrew Square still subject to programme challenge. Section of east side of St Andrew Square dependent on successful solution to telecoms diversions. Draft OSSA programme under review. Princes Street re-opened to traffic on 29/11/09 Section 1d Princes Street West to Haymarket Princes Street re-opened to traffic on 29/11/09 with the first bus running along the street at 8.03am. The north south route through Hanover Street / the Mound reopened to traffic at about 11.00am. snagging works started. Section 2 Haymarket to Roseburn Junction Haymarket Viaduct recommeced with excavation works. works(earthworks) to start from Dec09 Section 5a Roseburn Junction to Balgreen Road Temporary & permanent works re-design along with commercial resolution delaying structures. All required consents in place for track installation. W4-Piling stopped on 05/11/09 as 2no. drill bits on 04/05 Nov 09. BSC decided on 05/11/2009 to demobilise the piling rig and equipment as the CFA piling was not working. Additional SI commenced 09/11/2009 and was completed w/e 20/11/2009. Now it's likely to restart on Jan10 due to the non availability of Rig. Section 5b Balgreen Road to Edinburgh Park Central Temporary & permanent works re-design along with commercial resolution delaying various structures. Progress in period is against S27 Edinburgh Park viaduct. All required consents in place for track installation. Carrickknowe Bridge progressing during Period 9 with steel fixings and shuttering on the both abutments... Guided Busway section: Majority of civil works completed. 9 OLE piles failed to be rectified by Dec09. Track laying works started during period 9 Edinburg park Bridge- both approach ramp works started Section 5c Edinburgh Park Central to Gogarburn A8 Underpass recommenced during P13 2008-09 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. BT works have been completed period 9. Piling work to commence Jan10 Section 6 Gogar Depot Depot works recommenced 17th August 2009. Depot Building column foundations completed . Depot Steelwork installation commenced 5/10/09 and completed to GL 12 of 20 . Roof Clading works started and progressing during period-9. Gogarburn Bridge: Bridge deck and embankment works Section 7a Gogarburn to Edinburgh Airport completed. Culverts 1,2and 3 have been completed.

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#### 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 13<sup>th</sup> tram. Internal fit out and wiring continues for Trams 2 & 3 and the first tram is nearing completion of the Factory Acceptance Testing process, which has included it's first run under traction power. Dynamic testing will begin in earnest in the New Year. A contingency is being investigated for storage and testing should the first trams be complete before the depot is ready to receive them.

Tram inspector arrangements are in the process of being formalised with BSC.

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. As part of the process, a new Committee (Benefits Realiseation & Operational Readiness) has been set up and is reporting to the TPB. 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.

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# Interface with other projects 2.8

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. A new project has been included this period identifying the movement of abnormal loads through the Leith Docks area for Fallago Rig wind farm.

External Projects	Promoter	Project Description	Potential Conflict	0				
GREEN - No conflict anticip	oated but being monitor	GREEN - No conflict anticipated but being monitored. AIMBER - Managing any conflict. RED		Tram Contract	tract			
- Conflict which causes pro	ogramme concern / unkn	<ul> <li>Conflict which causes programme concern / unknown effect on tram programme.</li> </ul>		Dates		Project Dates		
				Start	Finish	Start	Finish	Comments
New Hotel adjacent	Ocean Points		Potential conflict with Infraco	3				
Ocean Terminal	Development Limited		dependent on timescales. To be					
		New build hotel	monitored.	Sep-09	Apr-12	TBA	TBA	To be monitored.
Movement of Abnormal	Sinclair Knight Merz	Transportation of turbines and 45	Conflict with tram works along					2 complete turbine
Loads		metre blade sections for Fallago rig	required transporation route.					movements expected each
		wind farm via road transporters from	Disruption to constructiona activities.					week for approx. 6 months
		Leith docks along Ocean Drive via		TBA	TBA	Jun-11	Dec-11	
		Ocean Terminal frontage to						
		Commercial Street , then East through						
		Great Junction Street/Duke Street						
		junction to Salamader Street						
Former Bus & Tram	Fraser & Neave	Transformation of former Tram and	None identified. Dependent on					To be monitored. Potential
Depot nr Shrub Place		Bus Depot into 121 room serviced	timescales.			1		TM interface dependent on
		apartments.		Now		TBA	TBA	Infraco proposals
Shrubhill House	Unite	Transformation of former council	None identified. Dependent on					Awaits planning consent. To
		social work headquarters into 200 bed	timescales.					be monitored. Potential TM
		hotel						interface dependent on
				Now		TBA	TBA	Infraco proposals
Baxter Place	Fitzpatrick Hotel	Conversion of existing building	Proposal to divert existing utilities					
Development	Group	adjacent Greenside Lane and with frontage onto Leith Street	through basement of building. Also potential TM interface issues	Oct-09	Oct-11	TBA	Dec-10	
			with Picardy Place construction.					

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External Projects	Promoter	Project Description	Potential Conflict					
GREEN - No conflict anticip	nated but being monitore	GREEN - No conflict anticipated but being monitored. AMBER - Managing any conflict. RED		Tram Contract	tract	Broiort Dates		
	, and a second			Start	Finish	Start	Finish	Comments
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	This project is now indicated towards the completion of Tramworks and therefore interfaces should diminish.
National Portrait Gallery		Major building construction and refurbishment. The renovation of the external facadesy, the overhauling of the existing windows, the renewal of the existing rooflights and roof covering. 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	Combined TPM has been implemented and close working relationships for interface matters have been established.
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	TBA	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	No conflicts expected.
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 (Oct-10)	Jun-10	May-12	No conflicts expected.
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	No conflicts expected.

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No issue as Project cancelled to commence until Jan 2010. Remaining utility works are station/haymarket junction. Infraco works not expected No conflicts expected, TM May Gurney programme complete with no issues complete with no issues as Planning Application rejected October 2009. No conflicts expected. recived during Aug09. No conflicts expected. Princes Street works Princes Street works requirements being to the east of the Comments monitored. 17-Nov-09 Dec-12 Jan-10 Jun-11 2012 TBA TBA Finish Project Dates 13-Nov-09 Early 2009 Aug-09 Jan-10 Dec-11 TBA TBA Start Nov-09 Nov-10 Nov-09 Sep-11 Sep-11 Sep-11 Sep-11 Finish Tram Contract Jan-10 Jan-10 Mar-09 Jan-10 Jan-10 Feb-09 Jan-10 Dates Start Potential Interface with Infraco works Infraco construction works. Bridge to be installed from Haymarket terrace Utility diversions continue until late at Haymarket junction commencing with TM for either or both MUDFA and Infraco and could conflict with Construction of Haymarket viaduct to Platform 0 to comply with DDA Any external works could conflict Potential Conflict Jan.2010 Jan.2010 GREEN - No conflict anticipated but being monitored. AMBER - Managing any conflict. RED Capacity Increase Project - Installation Installation of new lifts and walkways Network Rail/Scotrail | Main Building refurbishment works of new lifts and walkways from Conflict which causes programme concern / unknown effect on tram programme. from Haymarket Terrace **Project Description** Haymarket Terrace New build hotel asediqbal consulting Tiger Developments Deramore Property First Scotrail First Scotrail Group New Hotel in Haymarket Haymarket Interchange Haymarket Station Re-Princes Street Property Princes Street Hotel Haymarket Station NATO Conference External Projects furbishment

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External Projects	Promoter	Project Description	Potential Conflict					
GREEN - No conflict anticip	vated but being monitor	GREEN - No conflict anticipated but being monitored. AMBER - Managing any conflict. RED		Tram Contract	tract	Broinet Dates		
	9.000			Start	Finish	Start	Finish	Comments
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
Airdrie - Bathgate	Transport Scotland	New track installation	Tram possessions mainly "piggy- backed" on A2B possessions which could be altered / cancelled.	TBA	ТВА	Mar-09	Mar-10	Various possessions and RotR workings
New Hotel	NEL (New Edinburgh Park Ltd) / Whitbread	120 Bedroom Premier Inn Hotel	Construction traffic TM Interface	TBA	ТВА	TBA	TBA	The site, located at the southern end of Edinburgh Park, is opposite the Park's dedicated railway station and tram stop.
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	TBA	TBA	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-Depot	Approvals and Consents	Dec-09	May-11	Jul-10	Jul-11	Gogar Interchange Programme reviewed and updated in conjunction with both NR and TS

Colour code

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

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 November with a wash-up session for 2009 arranged for late December with TS.

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#### 2.9 Other

#### **Gogar Surface Station**

#### Key issues/Decisions Required

- Network Rail has written to tie stating its requirements for site access and seeking binding assurances from tie. These cannot be given without significant risk to the overall Edinburgh Tram Network.
- tie are submitting budget estimates to Transport Scotland for these NR related issues to
  enable a considered decision to be made in the best interests of the ETN and EGIP
  programmes by the principal funder of both schemes.
- NR and Scottish Water to agree on the diversion route for a sewer at Gogar as the chosen route and consequent impact on trackform design and/or retaining wall design to be evaluated.
- Decision required on BSC involvement in construction staging discussions and how BSC costs for this would be met. tie seeks agreement from Transport Scotland to fund BSC's demonstrable costs for construction staging.
- 5. Decisions required on long-lead items and abortive works between all concerned parties (TS/tie/NR) and discussions are ongoing to this end.

#### Design progress

At the end of Period 9 **tie** assesses the design phase as 44% complete compared with 62% planned. The cost of work done is £385k compared with £550k planned. The forecast outturn remains unaffected.

Civils and system design is now progressing in parallel with resolution of the commercial issues that have arisen from the change in layout of vertical circulation tower from that originally proposed in the GRIP 3 report. **tie** is pressing BSC to produce an integrated design programme that reflects the actual start date and completes by the end of the 2009-10 financial year.

#### Period 9 progress and actions to recover slippage

Progress in period for BSC and SDS was as originally planned and there was no further slippage in the design.

**tie** has identified a number of actions that can help to recover earlier design slippage. These have started to be implemented but the potential recovery has not yet been realised. The table below outlines measures being taken, their potential effect and progress to date.

Activity	Potential impact	Progress to date	Dependencies
Bring forward submission of Prior Approval to December 2009	Prior approval granted 11 days earlier	Informal consultation taken place with tram operator & scheduled with CEC Planners	Depends on Prior Approval not being delayed to re-align retaining wall to accommodate sewer diversion

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Encourage CEC to approve Prior Approval application in under 8 weeks	Prior approval granted up to 21 days earlier	Initial discussion with CEC planning held. Further discussions needed to confirm this as part of Approvals Task Force.	Depends on public response to consultation on Prior Approval application.  Cannot be achieved if there are material objections.
Encourage CEC to approve Technical Approval application for retaining wall in under 8 weeks	Technical approval granted up to 14 days earlier	No discussions yet held with CEC. Further design information needed from SDS so discussions can take place.	Depends on Technical Approval not being delayed to re-align retaining wall to accommodate sewer diversion

tie did not start the Joint Revenue Committee tram revenue modelling work in Period 9 as originally planned. tie requires further information on likely patronage of the rail station from Transport Scotland and a confirmation of the runtime impact of introducing the extra tram stop from SDS. tie has requested confirmation of when this information will be available from TS and SDS and will reprogramme the JRC modelling when the timescales are confirmed.

#### Programme milestones

Activity	Planned	Period 6 forecast	P9 forecast / Actual
Complete prelim design of additional tram stop	10/8/09	18/9/09	30/9/09 (A)
Submit Structures Technical Approval application	19/11/09	8/1/10	8/1/10
Submit Prior Approval application	26/11/09	15/1/10	18/12/09
Receive Prior Approval	5/2/10	12/3/10	1/3/10
Receive Structures Technical Approval	5/2/10	8/3/10	8/3/10
IFC	26/2/10	22/3/10	22/3/10

#### Integrated Programme Development

**tie** has continued to meet TS and NR to allow TS to develop the integrated programme but little progress has been made in Period 9 due to the fundamental difference in view held by Network Rail over approach to programme and site access.

Further work is required and important decisions of principle are needed by Transport Scotland as Network Rail is seeking guarantees on access that **tie** cannot give and as sated previously, discussions between the parties are ongoing.

tie is investigating mitigation measures that could be instructed by Transport Scotland that would increase the likelihood of meeting access dates sought by Network Rail. However, tie would still not be able to guarantee access and risk around these dates would need to be borne by Transport Scotland.

Further meetings have been taking place on the diversion of the 1500mm combined sewer by Network Rail. **tie** has assisted Network Rail by attending meetings on this issue and reviewing potential solutions to the conflict between Scottish Water's preferred diversion and the tram trackform.

A new option was put forward in the last week of Period 9 to divert the sewer such that it would not conflict with the track – however, this could necessitate a change to the retaining wall alignment. **tie** is proceeding with design of the Retaining Wall in its existing alignment while this conflict is being resolved.

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#### Overall design co-ordination

Project management meetings have continued between **tie**, TS and NR and fortnightly conference calls have taken place between **tie**, NR and the respective designers.

The significant outstanding design co-ordination issues are:

- conflict between 1500 mm sewer diversion and tram trackform
- location of tram radio mast tie is providing technically acceptable locations to Network Rail for them to choose one of those locations

#### Tram design issues

BSC has identified a need to discuss the reduced headroom for the OLE through the tramstop with the Independent Competent Person. BSC is arranging a meeting with the **tie** engineering team for Period 10 so that BSC can present a proposal to the ICP with the support of **tie**.

#### Land

Network Rail has provided draft temporary and permanent land acquisition plans to tie. We are reviewing these to establish the extent to which they are compatible with the tram scheme and provided feedback to Network Rail to inform outline agreements on land transfer and access for maintenance.

#### Other agreements

tie has highlighted the need for various operating and commercial agreements between tie and Network Rail and has asked Network Rail to arrange initial meetings to discuss the scope of these agreements. Network Rail arranged the first meeting on this issue onr 2 December.

#### Patronage modelling

tie had originally forecast that we would start patronage modelling in Period 9 but tie is still seeking 2 sets of information to provide to JRC. tie has requested an update to the run-time model from SDS that shows journey times with and without the Gogar Interchange, and have also requested rail patronage information from Transport Scotland that is consistent with the likely stopping pattern at Gogar Interchange.

#### Cost reporting

Cost of work done to date is £385k versus the £550k originally forecast.

Agreement has been reached with Transport Scotland on the substantiation and payment of the £100k contribution to **tie** costs.

#### Scope of tie works

tie has devoted significant effort to involvement in frequent and detailed construction staging discussions with TS and Network Rail. This has taken place in response to TS requirements to get Network Rail moving with detailed design and procurement.

This goes beyond the scope of the original grant offer letter and is taking up significantly more **tie** staff time than was originally envisaged. We have discussed this issue with TS and TS has provisionally recognised that additional **tie** support is required.

We have also reached the point where further construction staging meetings need to involve BSC for tie and Network Rail to make meaningful progress. As tie has not been able to issue any instruction

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on the construction of the Gogar Interchange BSC is legitimately concerned that their costs for attending construction staging meetings would not be covered if the Gogar Interchange did not go ahead.

tie considers that it will be necessary to underwrite BSC's demonstrable costs to take part in construction staging meetings and tie requests a commitment from Transport Scotland to support this

The scope of **tie** works also does not include any external legal costs in relation to land or agreements and it is likely that **tie** will need legal advice on before the end of the financial year in relation to agreements with Network Rail. **tie** expects that the extent of this will become clearer during Period 11 as Network Rail tables some draft agreements for review.

#### Long-lead items / abortive works

tie has raised the general issue with Transport Scotland of long-lead items that would need to be ordered and works associated with the current tram scheme that would be abortive if Gogar Interchange is constructed.

#### Two examples are:

- (1) the switches & crossings for the east entry to the Depot have been ordered by BSC for the original ETN layout but not yet manufactured **tie** could instruct BSC to change that order to include the new S&C or to ensure that this particular item of S&C is the last one to be manufactured giving further time for a decision to be reached.
- (2) drainage is due to be installed early in 2010 at the Gogar Interchange site for the existing ETN scheme. The installation of that drainage could be postponed to avoid abortive work but there would be programme impacts if Gogar Interchange subsequently does not go ahead.

tie will continue with the implementation of the existing ETN scheme unless otherwise instructed by Transport Scotland. tie will hold further discussions on the options with Transport Scotland in Period 10.

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#### Other Reporting Streams Progress

The following sections describe progress on other areas of the project during period 9.

#### 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.
- Buses returned to Princes Street on 29th November 2009.

#### Traffic regulation orders (TROs)

- The Council decision made on 22 September 2009 in support of the TRO process triggered commencement of TRO1.
- The Statutory Consultation process commenced on 12 October 2009, this process being limited to 7 Statutory Consultees only at this stage. This process concluded on 12 November, with no showstoppers identified, although a number of comments raised by L&B Police and Lothian Buses will require to be addressed in TRO2.
- It is envisaged that the Public Deposit of TRO1 will take place in Q1 2010, and envisages the order being made in July 2010.
- TRO 2 will follow the making of TRO 1. TRO 2 will reflect the complete design and issues that have arisen from TRO 1.

#### **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. They should include the programme of those works for the immunisation solution for NR infrastructure. The NR Immunisation development nears completion
- 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.
- NR the Bridge and Operating Agreements are not yet concluded. There is an outstanding issue on indemnities to close out, and this is being elevated by CEC on the advice of TS, to the ORR. TS have provided helpful advice on this matter.

## Third party interfaces

- Forth Ports It is anticipated that CEC will enter into Licence agreements with Forth Ports for the remaining utilities and BSC works separately. The terms of the BSC Licence to work in the Leith Docks area has been agreed in principle with Forth Ports, and it is expected that the licence will be executed before the Christmas break. Discussions are reaching a conclusion between CEC and Forth Ports regarding a renegotiated S75 arrangement, and to this end it is anticipated that CEC and FP will execute the variation to the Original Tram Agreement early in 2010.
- 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 CEC has reached agreement with the parties objecting to the building fixings process without the need to resort to court action. It is expected that BSC will begin the process to notify owners for commencement of preparatory works.
- 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.

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

- Bridge installation and abutment works completed.
- Road construction experienced weather delay in the period however; this is being recovered within the programme.

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- The new road and barrier system are forecast to be in operation by 18<sup>th</sup> December 09.
- Planned Completion Date is 12<sup>th</sup> January 10.

#### Section 7B Utilities

- Service diversions and reinstatements complete with the exception of the HV cable installation, which is due for completion on 18th December, 09 and the foul main tie-ins, which will commence 11th January 2010.
- The Completion Date will be amended formally to January 10 on review of the work methodology from Farrans for the foul main works.

#### **Hilton Car Park**

INFRACO – Works were completed by W/E 11 December 09.

#### Section 1 Utilities

- Farrans commenced works 9<sup>th</sup> November 09
- C4 agreements with Scottish Power, Scottish and Southern Energy, BT, Tele West and GEO are all to be agreed.
- Scottish Water are still to approve the protection proposals including the adoption of the sewer design at Ocean Drive.
- The way-leaves through ADM Milling are not agreed, although the intent to carry out a land acquisition may negate this element, principle of land agreement is in place, finalisation required with Forth Ports and AD.
- The licence with ADM is in place and works commenced as of 30<sup>th</sup> November. The tender works exclude all diversions in plates 11-17 and there remains substantial utility works in plates 14-17 to resolve.
- The utilities are being relocated out of Lindsay road by Clancy Docwra, who commenced on 11<sup>th</sup> November. BT and GEO cable diversion works by the utilities will dictate the programme.

#### Murrayfield Pitches (Souters)

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

# Archaeological works at Constitution Street (Frontline)

Archaeological works completed Period 9.

Following meetings involving CEC and Historic Scotland (HS) it has been agreed the Cemetery Wall can be taken down and rebuilt, Heath architects are producing an investigation schedule to precede the down taking and will also produce the redesign for the wall in consultation with CEC and HS.

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# 3 Headline cost report

# 3.1 Current financial year

		FY 09/10		0011	FY 09/10		001115	FY 09/10		COMD	Costs	Total	
	C	OWD Perior	a	COW	D Year To	Date	COWD	Full Year F	orecast	To Date To Go		AFC	
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance	Actual	Forecast	Forecast	
Total Project COWD	11.343	14.032	-2.689	77.151	97.806	-20.655	114.503	150.072	-35.569	311.180	222.129	533.309	
Other Funding	0.937	1.159	-0.222	6.370	8.076	-1.705	9.454	12.391	-2.937	25.693	18.341	44.034	
Demand on TS	10.406	12.873	-2.467	70.781	89.731	-18.950	105.049	137.680	-32.632	285.487	203.788	489.275	

Note: the budget figure in the table above does not include £3.2m for ph1b costs in 09/10. These were budget as 'below the line costs' and the value has not yet been drawn-down.

- tie Ltd and BSC reached commercial agreement prior to adjudication on the EoT1 DRP.
- Following the agreement for EoT2 liabilities BSC indicated that they now intend to bring projected start dates forward for Haymarket Viaduct, Building Fixings works, and works at the Guided Busway. Work has started in both areas.
- We continue in this report to reflect an outturn estimate of £533.3m. 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.
- 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 (last TS briefing 10<sup>th</sup> December 2009).
- The budget for ETP in 2009/10 is £150.1m (£153.3m inc 1b), which was produced linking the tie re-baselined 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 an acceptable outcome.
- The outturn figure reported in P8 for 2009/10 (£122.9m) has been re-assessed in period 9 (£114.5m) using the latest construction milestone live forecast and QS view of changes profiled to the end of the year.
- Funding available from TS for the project in 2009/10 is £149m. The TS share of this year's updated forecast (£114.5m) is £105.0m, giving available headroom of £44.0m.
- The negative figure forecast P10-13 in the table below relates to the net cost to utilities (costbetterment), with betterment being greater than cost in the last quarter.

#### Actual YTD P9 & forecast P10-P13 FY09/10

£m	YTD P9	Forecast P10-P13,09/10	Total FY09/10
Infrastructure and vehicles	54.4	29.6	84.1
Utilities diversions	9.2	-1.6	7.6
Design	1.7	0.9	2.5
Land and compensation	0.8	0.8	1.5
Resources and insurance	11.1	5.4	16.5
Base costs	77.2	35.2	112.3
Risk allowance	0.0	2.2	2.2
Total Phase 1a	77.2	37.4	114.5

Key sensitivities to the latest milestone forecast to P10-P13 09/10 are:

- On-street works Risks: Haymarket to Roseburn Junction Trackwork (£-637k); Leith Walk Roadworks (£-169k); Depot structure milestones in P13 (-£741k)
- Structures Opportunities: Tower Place Bridge (+£523k), Depot blockwork & Ducts (+£742k) Other key non-Infraco risks to the current forecast include (-£704k) Network Rail/ TS agreement.

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■ ETP COWD to Period 9 is £77.2m (Period 8 £65.8m) against budget £97.8m. The main drivers for the -£20.6m variance are: the timing of Infraco works costs forecast in 2009/10 offset by MUDFA spend incurred over the original 09/10 budget plan.

 Tramco production activity is running in-line with schedule; this is reflected in the Tramco construction works forecast profile

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

£m	<b>Q1</b> (p1-3)	<b>Q2</b> (p4-6)	<b>Q3</b> (p7-10)	<b>Q4</b> (p11-13)	Total FY09/10
Infrastructure and vehicles	15.8	18.5	29.2	20.6	84.1
Utilities diversions	3.2	4.3	1.6	-1.5	7.6
Design	0.7	0.4	0.7	0.7	2.5
Land and compensation	0.6	0.1	0.1	0.8	1.5
Resources and insurance	2.9	3.5	6.1	4.0	16.5
Base costs	23.2	26.9	37.6	24.6	112.3
Risk allowance	0.0	0.0	0.0	2.2	2.2
Total Tram	23.2	26.9	37.6	26.8	114.5

- A full reforecast of the Infraco 2009/10 cost profile was produced in period 9 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 construction 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 cost profile above shows a forecast ramp-up in activity throughout 2009/10, with base costs increasing from £23.2m in Q1 to a peak of £37.6m in Q3. This reflects the anticipated shift in Infraco milestone activity from Q1 to Q3 & Q4.
- Note: Utilities diversions -£1.5m forecast in Q4 relates to the nett (utilities costs -betterment credit) final betterment elements forecast against utilities providers.

#### 3.3 Total project anticipated forecast cost

Re-baselined Phase AFC and profiling

£m	Cum FY07/08	Actual 08/09	FY 09/10	FY 10/11	FY 11/12	AFC
Infrastructure and vehicles	30.7	45.4	84.1	131.6	10.4	302.1
Utilities diversions	18.4	33.4	7.6	0.0	0.0	59.4
Design	24.4	4.7	2.5	1.8	0.6	34.1
Land and compensation	16.8	1.7	1.5	0.0	0.8	20.9
Resources and insurance	42.8	15.8	16.5	12.7	11.9	99.7
Base costs (inc 1b)	133.1	101.0	112.3	146.1	23.7	516.1
Risk Allowance	0.0	0.0	2.2	15.0	0.0	17.2
Total	133.1	101.0	114.5	161.1	23.7	533.3

Note: Base costs include £6.2m for ph 1b.

 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-

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line with the latest live programme and Project Management assessment of deliverables. The AFC 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 £533.3m has been updated in period 9 by tie, and will be further updated when there is an updated agreed programme with the Infraco contractor.

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# 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 mid December 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	BSC Rev 2 programme – unapproved *	Actual / current forecast date tie live prgm
Approval of DFBC by CEC	21 Dec 06A		21 Dec 06A
MUDFA – commencement of utility diversions	02 Apr 07A	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	Mar-10	22-Feb-09A
Tramco / INFRACO – award following CEC / TS approval and cooling off period and SDS novation.	28 Jan 08	14 May 08A	14 May 08A
Construction commences	14-Apr-08	14-May-08A	14-May-08A
First track installation commences – on street	03-Nov-08	09-Jun-09	Jun 2009A
Carrick Knowe Bridge commences	21-Aug-08	31-Mar-09	19-Aug-08A
A8 underpass commences	08-Aug-08	12-Jan-09	28-Aug-08A
Haymarket viaduct commences	08-May-08	18-Jun-09	01-Sep-08A
Edinburgh Park viaduct commences	06-Aug-08	02-Dec-08	01-Sep-08A
Tram mock-up delivered	Oct 2008		Nov 2008A
Demolition of Wanderers clubhouse	25-Aug-08	01-Jun-09	22-Jan-10
Edinburgh Park viaduct complete	24-May-09	14-Oct-09	02-Apr-10
Princes Street re-opened	01-Aug-09	15-Jun-10	29-Nov-09A
NR immunisation complete	Nov 2009		Sep-10
Utilities works complete (including telecoms)	Nov 2008	Sep-09	Sep-10
All demolition work complete	22-Aug-08	Sept-10	May-10
All Issue for Construction (IFC) drawings delivered (inc Gogar interchange design)	21-Jan-09	08-Oct-09 (not inc Gogar interchange)	May-10
Haymarket viaduct complete	08-Dec-08	07-Jan-10	Jun-10
All consents and approvals granted	18-May-09		May10
Design assurance complete	20-Jan-09		Jun-10
1 <sup>st</sup> Tram delivered	09-Apr-10	09-Apr-10	09-Apr-10
Carrick Knowe bridge complete	11-May-09	24-Dec-10	Nov-10
A8 underpass complete	14-Jul-09	30-Sep-10	Nov-10
Roseburn viaduct commences	20-Jan-09	20-Oct-09	May-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	Apr-11
1 <sup>st</sup> section (other than depot) complete ready for energisation (2)	25-June-10	May-11	Dec-10
Commission Section 2 (Haymarket to Roseburn	11-Jan-10	Dec-11	May-11

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Milestones	Baseline programme date	BSC Rev 2 programme – unapproved *	Actual / current forecast date tie live prgm
junction)			
Final tram delivered	17-Jan-11	May-12	17-Jan-11
Driver training commences (depot only)	Dec-10	Jun-11	Jan-11
Commission Section 6 (depot)	25-Mar-10	Jun-11	Jul-11
Roseburn viaduct complete	20-Apr-10	Jun-09	Apr-11
Test track complete	23-Apr-10	16-Aug-11	Oct-11
Commission Section 7 (Gogar to Edinburgh Airport)	25-June-10	Oct-11	Dec-11
Commission Section 1 (Newhaven to Haymarket)	11-Mar-11	May-12	Jun-12
Commission Section 5 (Roseburn junction to Gogar)	09-Nov-10	Feb-12	Jun-12
Driver training commences (excludes depot)	Nov 2010	Aug-11	Jun-12
System testing complete off street	09-Dec-10	Mar-12	Jun-12
Construction Line 1a complete	17-Jan-11	05-Apr-12	Jun-12
System testing complete on street	16-Feb-11	May-12	Jun-12
Letter of "no objection" from Independent Competent Person to commence tram running	17-Apr-11	May-12	Jun-12
Shadow running starts	18-Apr-11	Jul-12	Sep-12
Shadow running complete	July 2011	Oct-12	Dec-12
Letter of "no objection" from Independent Competent Person to commence revenue service	July 2011	Oct-12	Dec12
Open for revenue service	July 2011	October 2012	Dec-12

<sup>\*</sup>BSC Rev 2 programme is not an agreed Contract programme

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

# 4.2 Key issues affecting schedule

tie and BSC have now entered into an agreed timetable to build and prepare a revision 3 programme, with a first draft expected by the end of January 2010. This process is underway with weekly reviews of data

#### 4.3 12-Week look-ahead

Milestones	Actual / current forecast date
1A Commence remaining non-MUDFA utility Diversions	09-Nov-09A
7 Complete Utility diversions Ingliston Park and Ride to Airport	13-Nov-09A
2A S19 Haymarket viaduct re-commences	23-Nov-09A
1C Complete Road & track installation on Princes Street	29-Nov-09A
1D Complete Road and Track works Lothian Rd junction	29-Nov-09A
2A -Trackworks Haymarket to Roseburn Junction -1135m	07-Dec-09S
5A Construct New Scotrail Carpark	07-Dec-09S
5B Trackworks Bankhead to Edinburgh Park Stn	07-Dec-09S

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Milestones	Actual / current forecast date
A8 Underpass -phase 1 recommence	07-Dec-09S
7 Hilton Hotel Carpark	08-Dec-10F
6 Depot Building Pits	11-Dec-09S
6 Depot Building Steelwork	18-Dec-09F
5A W4 Russell Road retaining wall piling - recommencing in Jan	04-Jan-10S
1A3 Commence Temporary Platforms and Demolition Tower Place bridge	04-Jan-10S
5C S32 Commence Depot Access bridge	04-Jan-10S
1A - Newhaven Rd to Ocean Terminal - ch 0000-0160 - Roadworks	04-Jan-10S
1A - Newhaven Rd to Ocean Terminal - ch 0000-0160 - Trackworks	04-Jan-10S
1B - Leith Walk - ch 350-100 - Roadworks	05-Jan-10S
6 Depot Building Foundations	06-Jan-10F
5A Demolition of Wanderers Clubhouse	11-Jan-10S
5C W16 Commence Gyle Stop RW	11-Jan-10S
7 Burnside Road construction	14-Jan-10F
1B Complete Utility diversions Balfour St to McDonald Rd	23-Jan-10F
1D - Haymarket ch 1250-1125 - Roadworks Phase 1	04-Feb-10S
6 Depot Earthworks	05-Feb-10F
1D Complete Utility diversions Haymarket to Shandwick Place	06-Feb-10F
6 Depot Sub-station	08-Feb-10S
5A S20 Russell Road bridge	26-Feb-10S
7 W14/W15 Gogarburn RW	01-Mar-10S
1B - Leith Walk - ch 600-850 - Roadworks	03-Mar-10S
1C1 - Complete Utility diversions McDonald Road - London Road	21-Mar-10F
5B Trackworks Balgreen Rd Saughton Road North	23-Mar-10F
5B Trackworks Saughton Rd to Bankhead (Guided Busway)	26-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. Four items were closed on the Infraco concerns register. There were thirteen draw downs on the risk allowance approved in the period totaling  $\mathfrak{L}_{1,191,219}$ . These are detailed later in this report. This leaves a risk and contingency balance of  $\mathfrak{L}_{2,229,630}$  (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		
19/10/09	Change and Risk Review	Project Risk Manager Infraco QS Infraco Commercial Mgr	Review of current and proposed changes against risk allowance		
30/11/09	Signalling, Communication and Control (SCC) Risk Review	Project Risk Manager SCC Project Risk Manager	Risks and Treatment Plans Reviewed		
30/11/09	Depot Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed		
01/12/09	Mudfa Risk Review	Project Risk Manager Mudfa Construction Director	Remaining Treatment Plans Reviewed		
01/12/09	Structures Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed		
01/12/09	Network Rail	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed		
01/12/09	High-level Infraco Risk Review	Project Risk Manager Infraco Director Engineering Director	High-level risks reviewed		
02/12/09	Section 1A Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed		
03/12/09	Roads and Drainage Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed		
3/12/09	Design Risk Review	Project Risk Manager Design Project Manager	Risks and Treatment Plans Reviewed		
3/12/09	Princes Street Risk Review	Project Risk Manager Project Manager	Risks and Treatment Plans Reviewed		
3/12/09	Gogar Interchange Risk Review	Project Risk Manager Project Manager Programme Manager	Risks to Tram Project and construction of interchange identified		

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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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		Action Owner	S Bell	T Hickman	F McFadden	M Paterson	T Glazebrook
		Date (	30-0d-09				30-Jun-09
		Current	Complete	On Programme 30-Dec-11	On Programme 30-Dec-11	On Programme 30-Dec-11	Complete
		Previous Status	Complete	On Programme	On Programme	On Programme	Complete
		Treatment Strategy	DRP on programme management (EOT1)	between tie/BSC nme managers	Programme Management Panel process	Weekly te/BSC commercial meetings	Establish a process which will act as a control mechanism for design changes. (If one exists already then ensure process is complied with)
Progress Report Issue 1 Period 09	Top 5 Risks - Period 9 2009/10	Risk Owner Significance Black Flag	Heat - 25 00				Han ZE DO
Document Type: Issue: Progress Meeting Date: Page: 37	Top 5	Effect Risi	Increased out-turn cost S Bell due to delay plus revenue	loss			Additional cost and S Bell programme delay
Vermona del Discontratorio		Event	Delay to completion of project				Tramworks price based on a design which may have been altered. Unclear who authorised design change.
Edinburgh Tram Project Delivery Organisation Period Progress Report			General delay to programme with various causes e.g. failure to obtain	approvals on time; parliamentary processes, contractor issues.			Base Date Design information to Issued For Constructions (BDDI-IFC). Lack of visibility of design changes between November 2007 and May 2008
Edinbur Delivery C		ARM Risk ID Cause	5343				, 1077

30-Jun-09 S Bell

Complete

Complete

Intensive Mediation Marathon 29/6/09 to 6/7/09 to try and resolve. Issues.

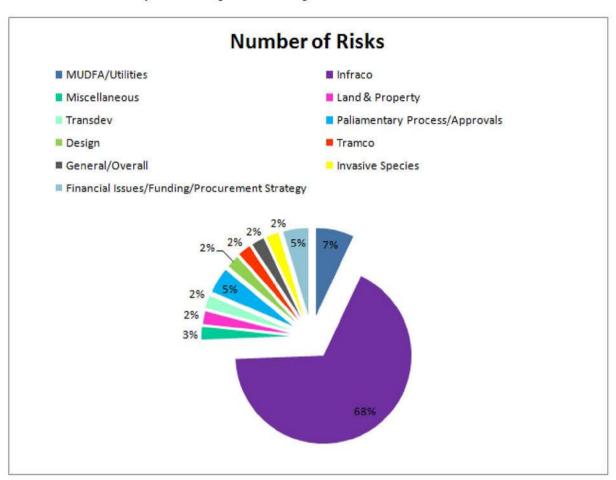
Mediation resulted in no overall Complete Complete 14-Aug-09 agreement on BDDI - IFC although it gave useful background information. Strategy paper to be presented to TPB on 29 July to seek approval for way forward including utilising necessary contract mechanisms (DRP, audit etc)	Resolution Strategy approved - 1st Complete Complete 10-Aug-09 DRP to go 10th August, audit requests to BSC for information going w/c 3.8.09	Of the issues previously highlighted as going through DRP, thas been ruled in favour of tie, 2 have been ruled in BSC's favour and this is being reviewed by lie, Further issues are due to enter DRP in December 09 and January 10.
Mediation resulted in no or agreement on BDDI - IFC: it gave useful background information. Strategy pape presented to TPB on 29 Jusel approval for way forw including utilising necess contract mechanisms (DR etc)	Resolution Strate DRP to go 10th A requests to BSC going w/c 3.8.09	Of the issues previously highlighted as going thro 1 has been ruled in favor have been agreed, 2 have ruled in BCC's favour and being reviewed by the, Fur issues are due to enter December 09 and Janua December 09 and Janua

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Excavation material be	Excavation of soft, unsuitable material below Earthworks	Additional cost	F McFadden High 25.00	Donaldsons to carry out surveys	Complete	Complete	30-Jul-09	CNeil
outline				Extent of soft ground being investigated. External specialist advice deployed.	On Programme	On Programme 31-Dec-09	31-Dec-09	M Paterson
Unrealistic e	Unrealistic estimates being submitted for potential changes	Programme delay while disputes regarding	F McFadden High - 25.00	Additional resource from TNT	Complete	Complete	30-Jul-09	M Paterson
		estimates are resolved		Agreed with BSC for independant evalutation to get benchmark	Complete	Complete	30-Jul-09	M Paterson
				All estimates to be scrutinised by the commercial team and, where appropriate, challenge made to BSC. Additional resource (T&T) being used to check estimates to reduce delay.	On Programme	On Programme 30-Dec-10	30-Dec-10	M Paterson
Roads throu	Roads throughout works require full depth reconstruction	Roads throughout works require Programme impact plus full depth reconstruction additional costs. £1.5m cap applies to only 4 areas.	F McFadden Bigh 24.00	Carry out surveys to confirm extent of roads requiring full depth reconstruction	Complete	Complete	30-Jun-09	C Nell
				Suite of options from surveys to be reviewed and agreement reached	On Programme	On Programme 31-Dec-09	31-Dec-09	M Paterson

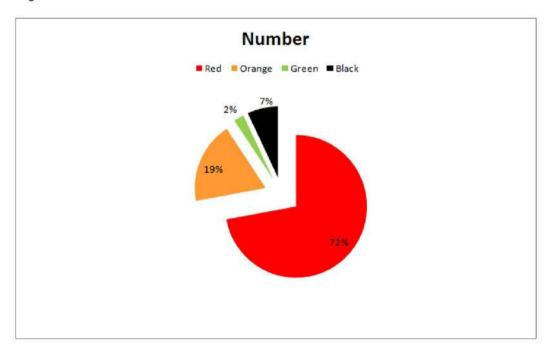
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Issue:

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.

## <u>Infraco</u>

The following four items were closed in the period.

Discipline			Risk description	1
	Risk Number	Cause	Risk Event	Effect
	17		,	
NR	13	Possession cancelled or tie stop being possession owner	Loss of disruptive or RotR possession	Could prevent critical work being completed, i.e. a bridge installation. For RotR possession there would be a delay in completing the works
Section 1D	61	Planning permission granted for other works in this section	Potential conflict with other projects in this area	Delay to programme, extension of time claim. Additional cost.
Section 1D		Inadequate management of stakeholders in Princes Street and Haymarket junction	Stakeholders dissatisfied with level of information from tie resulting in complaints etc	Negative publicity for project. Damage to tie's reputation.
Section 1D	82		Analysis which informed the approved TM arrangements proves to be incorrect/flawed when implemented on site	Unacceptable delays/congestion in city centre

The following three concerns were added in the period by the Infraco Director.

•	1		Risk description	
	Risk Number	Cause	Risk Event	Effect
· ·	17		·	
General	116	Failure of BSC to comply with Employer's Requirements	Failure to supply system verification, integration and design assurance documentation.	ICP does not approve system for operation.
General		Utility diversions carried out prior to final design of DKE. Lack of space when utility diversion were being carried out	Conflicts with services within the DKE at Leith Walk	Additional cost and delay
General	118	Supplemental Agreements are used for remaining on-street works	Contractor paid on demonstrable costs as per agreements.	Additional cost

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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.

Action Owner	Risk ID -	Action ID -	Action Name	Due 🔻	Active -	Complete -	Late -	Next 3 periods
-10.5421 17		177000	The tie "Safety" bus is being used to deliver safety talks &	zur swahrzopzuszen -		5401	e-0-15	esco da Morecomo
B Cummins	928	690	culture surveys to the contractors workforce.	31/12/2009	Yes	No	No	Period 10
0.11.11	004	204	Obstructions and voids survey, establish ownership reduced	04/40/0000	Version 1		22223	D : 140
C Neil	931	681	delay on discovery.	31/12/2009	Yes	No	No	Period 10
C Neil	1076	645	Tramworks PMs attendance at Traffic Management meetings. Weekly meetings between tie Tramworks and Utilities PMs. 4-weekly tie Tramworks/Utilities management meetings. Identification of programme clashes between Tramworks and Utilities works tracked.	31/12/2009	Yes	No	No	Period 10
C Neil	1078	647	Engagement between tie and BSC at different levels. Regular review of BSC management of third parties as per Employers Requirements.	31/12/2009	Yes	No	No	Period 10
D Burns	869	644	Length of Line 1a to be re-surveyed on regular basis	30/12/2009	Yes	No	No	Period 10
D Sharp	271	559	Assure the quality and timing of submissions	31/12/2009	Yes	No	No	Period 10
F McFadden	914	557	SDS to obtain consent for design in accordance with programme requirements - SGN and Scottish Power. Complete with the exception of section 1A1	31/01/2010	Yes	No	No	Period 12
F McFadden	914	573	SDS to obtain consent for design in accordance with programme requirements - Scottish Water and all Telecoms. Complete with the exception of section 1A1 Assess TM implications to minimise enabling works and	31/01/2010	Yes	No	No	Period 12
G Barclay	1084	654	additional cost	31/01/2010	Yes	No	No	Period 12
M Blake	164		In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer. York Place to Picardy Place and particularly Broughton St Junction IFC design incompatable with concested utilities.	31/12/2009		No	No	Period 10
M Blake	139		In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer. York Place to Picardy Place and particularly Broughton St Junction IFC design incompatable with congested utilities.			No	No	Period 10
M Paterson	1091		Extent of soft ground being investigated. External specialist advice deployed.	31/12/2009	Yes	No	No	Period 10
M Paterson	1094		Suite of options from surveys to be reviewed and agreement reached	31/12/2009		No	No	Period 10
P Dobbin	931		Infraco trial holes where applicable.	31/01/2010		No	No	Period 12
P Dobbin	105	683	Headland working at Constitution Street.	31/12/2009	Yes	No	No	Period 10
S Bell	1077	691	Six issues going through DRP process. Anticipated conclusion mid-November 09.	17/12/2009	Yes	No	No	Period 10
W Biggins	911	628	Liase with Scottish Power to agree and approve method of crossing tunnel.	31/12/2009	Yes	No	No	Period 10

### 5.3 Cost Quantative Risk Analysis

The QRA which was in place at Financial Close was reviewed and amended in Period 9 08/09. A further review of the QRA was carried out in Period 13 08/09 and Period 1 09/10, with the results presented as a range of possible outcomes. The revised range of numbers was used to inform a range of numbers for the overall budget.

The Project Risk Allowance at financial close was £30,336,196. Drawdowns to the end of Period 9 09/10 now total £28,106,566. Remaining risk balance based on the approved QRA is £2,229,630.

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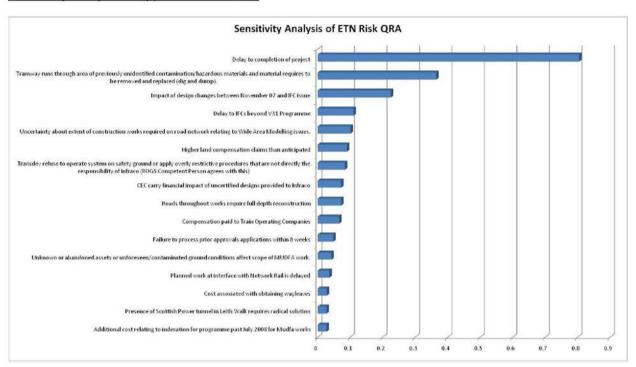
## Risk drawdown

The following table illustrates the drawdown applications on the project risk and contingency allocations in Period 9.

Description	Owner	Value (£)
Carrickknowe - works out with LOD	Mike Paterson	4,324
Haymarket BDDI - IFC increase	Mike Paterson	67,315
Network Rail costs	Gail Blythe	644,128
Boundary Hedge between Gogarburn Tramstop & Depot	David Carnegy	5,369
Depot Access Road Specification	Mike Paterson	78,675
Levels BDDI to IFC at Edinburgh Park Bridge	Mike Paterson	62,851
TRO Infraco Consultation Plans	David Carnegy	23,480
A8 Underpass Existing 1 way BT service	Mike Paterson	22,847
Trial Soil Nailing - Russell Road Underbridge	David Carnegy	44,718
Approach Ramps	Mike Paterson	185,000
Design Changes for MUDFA	Damian Sharp	3,527
5C CEC Comments for Lochside Av up to Adoptable Standard	Mike Paterson	40,071
Depot Floor-Pit for turntable	Mike Paterson	8,914
	Total	1,191,219

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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.

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#### 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.

## **Opportunities**

An opprtunities workshop was held in Period 7. Treatment plans were reviewed and updated in Period 9. The schedule below highlights the opportunities identified and current position.

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mber TY	Event	Opp rating *	A	Treatment plan	Owner	Due date	Review Comments	Progr (%)
	Original forecast value for incentwisation was £400k. In-line with performance it is tie management view that the SDS incentivisation cannot be fully justified, with £400k the worst case.	16	Open	tie PM to manage SDS KPI agreement to ensure that the maximum incentivisation paid out should be £300k	Damian Sharp		Any savings expected to materialise in Period 6	
3	Within the current forecast figures is a cost of 5947k for the additional cost of Land Value over and above the market rate when the project budgetted. £162k of the benefit has already been taken to AFC feaving an opportunity of £785k.	19	Open	AS to lay out a timetable as to when land savings can be crystallised. In light of the stagnated property market it is unlikely that the additional £785k built into forecast or the duplication of cost in risk will be utilised.	Alastair Sim		Being managed by A Sim. Still regarded as possible saving.	
4	Opportunity to claw back £230k of costs directly to Transport Scotland on the back of the Scotrail settlement.	11	Open	AS to lay out plan/ timetable as to how specifically these costs can be passed onto TS.	Alastair Sim		SB and AS to meet with TS	
21	Programme allows for full depth road reconstruction. If this is not necessary there will be a programme time saving		Open	B Bell managing through development workshop	B Bell			
23	CoCP working hours are 7am-7pm Mon-Fri, 8am- 1pm Saturday. If these restrictions were relaxed in specific areas such as Balgreen to Carrick Knowe, Edinburgh Park and Bankhead Drive there could be a potential programme saving.		Open	Application to relax CoCP restrictions to CEC	TC/WB	31/12/2009	This has been made in a number of areas and working out with CoCP is currently underway.	
	50metre radius curve at Gogar - at the moment the trackform will be embedded. Opportunity to convert to ballasted.	12	Open	tie/BSC to examine possibilities	WB/BB	31/01/2010	P7 - BSC are redesigning with ballasted track. Saving will be in moving from slab to ballasted but maintenace cost will increase P9 - desing underway.	
9.60	ERs identified 43 sets of breathers and expansion joints around situ cutures throughout network. BScs proposal is to install 5 sets. Saving of cost of 38 sets.	122	Open	tie have received BSC's proposal on longitudinal expansion and expansion around structures. Tachnical meeting arranged in P3 to review tie's return comments on BSC's proposal	WB/88		BAM review has confirmed 5 sets only can work however SDS disagree. WB to arrange workshop to progress final number.  P7 - BSC not agreeing to change due to loss of profit in BB chil works.  P9 - Siemens installing to their design which removes need for 38 sets of breathers. Resubmitted design proposal with design calles and this is being reviewed. Saxing of approximately £12k x 38. Actual saxing to be agreed in P10.	
1	The depth of excavation (for S21b and S21d and W8) could be reduced thereby providing a cost/time saving. To do this the design needs to be revisited. (BSC did additional SI in this area in summer 2008 which could be used to review designs).	1	Open	tie would need to instruct BSC to revisit design as BSC have indicated they will not do so unless instructed.	TC/CN	30/11/2009	TC and CN to manage	
- 69	£250k cabling programme planned for Hope St junction. IF BT can be convinced to leave in situ then this will represent a saving.	1	Open	Meeting taking place with BT on 14 Oct to present proposal to BT	GB/CN	31/01/2010	Meeting still to happen but opportunity still 'five' P9 - BT rejected proposal. G Barclay to meet BT	
	tie have paid NR risk fee totalling £510k to date with potential to increase to £900k. Possibility of (a) recouping the spend or (b) saving the remainder	1	Open	Those who have a 3rd party agreement and have a principal contractor's license are meant to be exempt from the risk fee. DS to review agreement to confirm tie qualify for exemption.	GB/DS	30/11/2009		
38	Potential to make programme savings once systems programme has been received.	1	Open	BB and GB to review programme once received.	GB/BB		Programme still outstanding	
39	Systems beginning the Masseburn - opportunity is to change trackform from direct fix to Rheda City Copen. This would give a productivity saving as track would not be fixed to slab. Also opportunity to examine the need for slab track at all.		Open	Needs to be Infraco change - potential 88 reluctance due to affect on civil works.	WB/88		Siemens to prepare change proposal - would result in programme saving  P9 - CEC planners have confirmed that Haymarket to Russell Rd Bridge (477m) and Russell Rd to Murrayfield Hall (490m) can be changed to ballasted from direct fix.	
	Change rail section in all transtops (in the off streat section) from grooved to S49 rail. This would provide a cost and productivity saving.	1	Open	Consortium issue in removing work from civils to systems as the need for a transition slab is removed.	W8/88		Siemens have submitted proposal for S49 through tram stops.  P9 - S49 now being installed through tram stops. (production saving)	
1	Section 5Y (within 5B) - opportunity to remove ashphalt, which has been noted as a requirement by CEC planner in the section from east side of Edinburgh Pk tram halt to Edinburgh Pk viaduct approach, and continue the S49 on track ballast from the pedestrian crossing to the approach to Edinburgh Pk viaduct. (removes 100m of grooved rail with crossover and 2 transition slabs and improves producties the second producties of the second producties	1	Open	This has been discussed with Siemens who will write to tie proposing these changes.	wa/aa		Semens progressing with design change and ordering switches and crossings based on S49 P9 - opportunity accepted by Stemens and being carried out. (Production saving)	
43	productivity) Re-railing points - 15 no identified in ERs for the depot area. These could be removed with resultant saving in cost and productivity		Open	tie to decide if these are required. If not then BSC to be instructed.	W8/88		WB to discuss with Siemens	
2.2	Ground Improvement layer - adopt BAM's preliminary design for the floating slab developed to incorporate the noise and vibration measures.		Open	tie, BAM and SDS to discuss	W8/88		BAM still working on design for ground improvement layer	
	Edinburgh Pk green track - soft ground through Edin Pk limits what can be installed. Opportunity is to change trackform to ballasted. Substantial cost saving as civils cost will be	1	Open	Edin Pk/CEC agreement required.	WB/88		WB to take forward  P9 - tie saving to be calculated  Proposal needs to be made to	

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Opp number 17	Event	Opp rating		Treatment plan	Owner	Due date	Review Comments
	Eliminate soil nailing in preference for 1:2 batter. This would provide a mitigated cost increase		Open	AR/SB/FMF have agreed to reduce clearances in the depot stabling area. BSC to confirm conditions can meet 1:2 slope.	AS		
47	Advance Siemens commencement by 6-9 months as contract programme showing completion prior to handover to Siemens	1	Open	Programme team to be made aware of opportunity and attempt to negotiate with BSC	AS		
48	Obtain agreement with CEC to adopt a different road construction methodology thereby saving time and money.	1	Open		CN		
49	Opportunity to amend to standard foundations in off-street section which would reduce cost.	1	Open		CN		
	Selling of land which has been purchased but is no longer required	1	Open		A Sim		
	Recovery of costs from Siemens for recovery of stray current monitoring costs.	1	Open		CK/BB		
64	Opportunity to convert from direct fix to Rheda City C trackform at Approach to South Gyle Access Bridge (49m) East side of Bankhead Stop (33m) Eastern ramp at Edinburgh Park Station Bridge (72m) East Side of Castle Gogar Access Rd (679m) Departure side of IPR stop (104m) Gyle Tramstop to south side of A8 (165m)	1	Open	WB liaising with Siemens to agree proposals.  Production saving to be made:	WB		P9 - Approach to South Gyle Access Bridge (49m) - becoming Rheda City C from Direct Fix (Production saving) East side of Bankhead Stop (33m) - becoming Rheda City C (Production saving) Easten ramp at Edinburgh Park Station Bridge (72m) - becoming Rheda City C (Production saving) East Side of Castle Gogar Access Rd (679m) - From A8 to Depot this can become ballasted throughout (200m to be Rheda City C and 479m to be ballasted throughout (200m to be Rheda City C and 479m to be ballasted) Potential cost/production savings Departure side of IPR stop (104m) - becoming Rheda City C (Production saving) Gyle Tramstop to south side of A8 (165m) - convert from greentrack to ballasted, agreed with CEC planner. Potential £350 per metresaving

The following opportunites have progressed well and commercial agreement needs to be reached as to any cost or programme savings, as the opportunity has been agreed in principle with Siemens.

- No.29 BSC are redesigning with ballasted track. The saving will be in moving from slab to ballasted but maintenace cost will increase.
- No.34 Siemens are installing to their design which removes the need for 38 sets of breathers. Resubmitted design proposal with design calculations are being reviewed. Saving of approximately £12,000 x 38. This saving does not include any reduction in civils costs.
- No.39 CEC planners have confirmed that Haymarket to Russell Rd Bridge (477m) and Russell Rd to Murrayfield Hall (490m) can be changed to ballasted from direct fix. Saving needs to be calculated.
- No.40 S49 is now being installed through tram stops. This provides a production saving which needs to be agreed with BSC.
- No.42 this opportunity has been accepted by Siemens and is being carried out. This provides a production saving which needs to be agreed with BSC.
- No.54 Approach to South Gyle Access Bridge (49m) becoming Rheda City C from Direct Fix. This provides a production saving which needs to be agreed with BSC.

East side of Bankhead Stop (33m) - becoming Rheda City C. This provides a production saving which needs to be agreed with BSC.

Eastern ramp at Edinburgh Park Station Bridge (72m) - becoming Rheda City C. This provides a production saving which needs to be agreed with BSC.

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East Side of Castle Gogar Access Rd (679m) - From A8 to Depot this can become ballasted throughout (200m to be Rheda City C and 479m to be ballasted) This provides a cost and production saving which needs to be agreed with BSC.

Departure side of IPR stop (104m) - becoming Rheda City C. This provides a production saving which needs to be agreed with BSC.

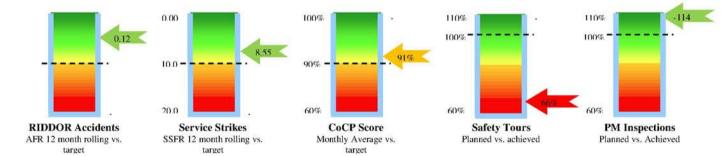
Gyle Tramstop to south side of A8 (165m) - convert from greentrack to ballasted, agreed with CEC planner. Potential for  $\mathfrak{L}350$  per metre saving.

# 6 Health, safety, quality and environment

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

6.2

HS&E ACCIDEN	NTS and INC	IDEN	TS SL	JMMAF	RY						
Total	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	EN V	R T A	МОР	AFR	SFR
Period	153,150	0	0	3	20	9	2	0	5	0.00	5.88
13 period rolling	1,717,639	1	1	31	258	146	13	8	51	0.12	8.50



There have been no reportable accidents during Period 9 bringing the 13 period Accident Frequency Rate to 0.12 which is ahead of the target for 09/10. Period 9 figures also show that the service damage frequency rate continues to fall, with no service strikes reported by MUDFA. BSC service strikes have risen in the period with a significant near miss and service strike recorded. However, the 13 period rolling frequency continues to fall significantly. As a result of a significant power cable incident on Princes St. BSC organized a safety stand-down to discuss safe digging practices and protocols, this involved 168 staff and operatives. The significant near miss was a cable strike in Princes St.; operative breaking out concrete and 'nicked' a power cable. Flash occurred and operative sustained minor burns to eyebrows. BSC are currently investigating the near miss.

There have been 10 near misses reported during Period 9 the majority of which were reported by the contractor - this is an improvement from last period. This can be attributed to better communication with all consortium partners and assistance from **tie.** The number of inspections planned by Project Managers was 15, the actual completed was 16; 12 CoCP inspections and 4 joint site inspections. 4 of the 6 planned safety tours were completed during Period 9.

Targeted support was given to the Princes Street team, which assisted in a successful hand back of a safe and suitable Princes St to the City with an emphasis on safety and quality. Lessons learned from the hand over process will be reviewed and where necessary taken on board for future handovers.

There was a significant reduction in the number of MOP incidents during period 9.

A poor resturn on Safety Tours has been noted in the period, and this will be addressed in subsequent periods going forward. This has, in part been due to the process to record the findings of tours completed towards the end of the period.

#### Environment

There was an increase in environmental incidents in period 9, with a significant diesel spill on Princes Street being recorded. Refuling practices need to be defined and improved. BSC have been instructed to review their process. Live Japanese Knotweed has been identified (subsequent to

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treatment) at the Viking Building. TCM have carried out a formal review of the whole area and will remove this plant in line with the requirements of their guarantee. BSC Strategy for dealing with invasive species remains outstanding and has been escalated to Director level.

The project CoCP relaxation process has been refined and agreed with CEC, however, this does not allow for the breach of noise control requirements. The new procedure will be formally rolled out to the contractor and operatives in the new year.

Works ongoing regarding contaminated ground. BSC have been asked to provide clarification/evidence of areas that they believe to be contaminted in order that **tie** can review and advise.

## 6.3 Deliver a Safe Tram (Quality)

				Data Ch	ecked		
Section	Activity	Interdisciplinary Design Check	Hazards	Inspection and Test Plan System	Design Variation/Chang e	As Builts	Asset Register
Section 1D Princes Street	OLE Bases/Structural Concrete	0.5	NA	1	NA	NA	NA
Section 2A Haymarket Viaduct	Re start on site 23/11/09	0.5	0.5	1	1	0	NA
PD	Total (y)	1	0.5	2	1	0	0
	Max Possible Total (y)	2	1	2	1	1	0
Total	Percentage P8	19%	69%	89%	50%	74%	21%
	Percentage P9	21%	73%	90%	53%	73%	50%

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

Due to the handover of Princes Street 3 / 4 Period 9 "Deliver a Safe tram" inspection metrics were held, at Princes Street to ensure records were fully in place. This has been noted as 1 inspection in order that there is no duplication.

Asset Management meeting held with S. Smith/J. Ritchie **tie** and E. Ingles Siemens (BSC) on the 17/11/09. E. Ingles advised that he is happy to support the metrics inspections and that a full asset register will be set up in the New Year (2010). BSC advise that the Engineer for each area is responsible for ensuring that the asset register is being developed and that the information is being passed to E. Ingles. Asset Nomenclature Concept Document Revision 1 (Draft) previously submitted to S. Scott (Transdev) and L. Murphy (**tie**) for discussion.

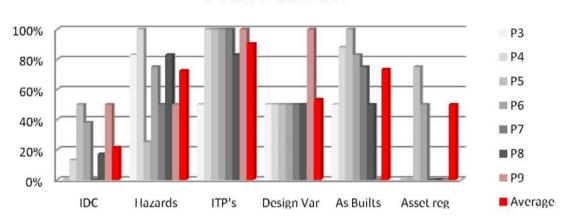
ITP workshop carried out 11/11/09 to discuss the progress towards Princes Street handover. Follow up ITP inspection/workshop carried out on site with both McKenzie's and Crummock's on 24/11/09. Both workshops attended by **tie** representatives.

Design Assurance Audit (Tram) carried out 18/11/09. CAF have been given until end of play 2/12/09 to produce further evidence for audit as the majority of their records are held in Spain and were unavailable at the time of audit. Subsequent to this date the final report and findings will be written up and issued.

Initial meetings held with BSC to discuss the As Built drawing process. This is currently ongoing as inital discussions developed into a meeting to discuss Princes Street, thus **tie** will push the development of the As Built process during period 10.

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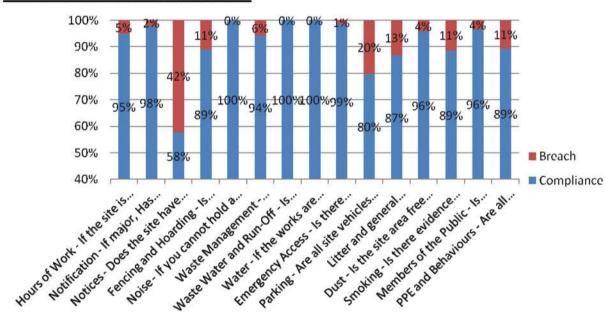
## Period Tracker



## Action being taken

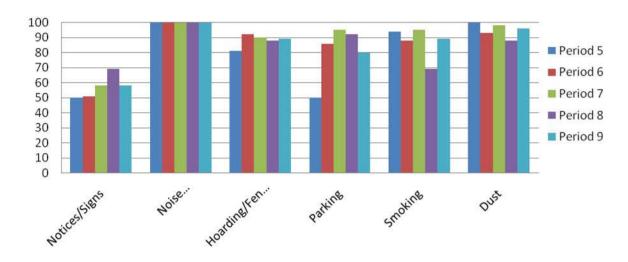
- Contact now established for all aspects of the Deliver a Safe Tram strategy, with the additional support from BSC helping to provide more meaningful outcomes from the weekly inspections.
- Areas previously inspected are being re-inspected to close out actions.
- Weekly meetings now being held with tie Quality and BSC quality departments.
- tie Project Manager start on site checklist to incorporate a version of the DaST questions.

### Code of Construction Practice Period 9



CoCP compliance continues to be monitored by **tie** with a number of increases in non compliances being noted during period 9, specifically the increase in non complaince of no smoking within the site. However slight improvements were noted in the compliance of notices/signs and parking on site. The CoCP relaxation process was improved during period 9 and will be rolled out to all relevant staff in the new year - this should lead to improvements in compliance.

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The COCP statistcs are published on the tram website and continue to be monitored on a period by period basis. Action plans are alos published to address areas of concern.

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## 7 Stakeholder and Communications

## 7.1 Media / Press Activity

The media activity has been steady, mainly with balanced and positive coverage surrounding two key themes – Edinburgh Sparkles and the re-opening of Princes Street.

In terms of the re-opening of Princes Street on 29<sup>th</sup> November, the lead up to the day provided a mixture of positive, balanced and some negative coverage based mainly on scientism. However, with Princes Street opening on the 29<sup>th</sup> November as planned, there was a significant shift towards much more positive coverage regarding the trams project generally. There were a few exceptions, however, we were able to mitigate these rapidly along with our partners.

The Edinburgh Sparkles campaign in which Edinburgh Trams played a significant role, provided a joint approach to widespread positive coverage of the festive events in the City and in turn providing a platform for Edinburgh Trams being a key stakeholder within the Capital.

During the next reporting period we will continue to focus on an ambitious programme of works, particularly on the off-street works including, Carrick Knowe Viaduct, Burnside Bridge at the Airport; Haymarket Viaduct, Edinburgh Park Viaduct, Gogarburn Bridge and Gogarburn Depot. Towards the end of January, we can also expect to have some media activity surrounding planned works for 2010 which consists of a significant amount of on-street tram works.

## 7.2 Customer Service Activity

Customer enquiries have decreased by 89 from Period 8's total of 453 contacts to 364. Weekly totals remained low throughout the period with only week 2 breaching the 100 mark with 102 contacts.

Emails (145) and Phone calls (165) continue to be the main channels of communication with the Customer Service team, with numbers reaching the same volumes as Period 8. Correspondence via Face to Face meetings (F2F) however has dropped considerably from last period where 116 contacts were recorded compared with Period 9's 21. A distinct drop in information requests to Tram Construction Advisors by businesses can be attributed to the low figures for this period. This drop in F2F enquires by businesses could go towards explaining the overall decrease in Period 9s figures.

Information Requests again comprise the majority of all contacts made by the public numbering 330 in total. The remaining 34 contacts were concentrated in Complaints (6), Business Support (8) and Insurance Claims (6). Period 8 figures reflected the same amount of enquires in these areas.

## 7.3 Public Information Planning

Prior to the launch of Edinburgh Sparkles on Thursday, November 26, Edinburgh Trams worked with Winter Festivals, to produce various signage and banners giving directions, promoting the city, and thanking the city for its patience.

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In order to facilitate a wider and more interactive view of how the trams will look, feel and be used in operation, we have ordered 500 copies of 'a day in the life of the tram' DVD, which shows modalities of usage, features of the tram and benefits. These will be distributed to key stakeholders and enquirers.

We have placed a duo of adverts in the local newspaper and EHLiving magazine thanking the Edinburgh public for their patience and support during the closure of Princes Street and a message re-iterating the fact that an embargo will be in place in the city centre over the winter period.

Discussions are ongoing regarding the livery and branding of the tram vehicle. To this end tie have hosted a sub-group of the branding group tasked with recommending options for tram livery. Several designs have been produced, which are currently being evaluated.

#### 7.4 Website / Internet Communications

There were 20,526 visits to the <u>www.edinburghtrams.com</u> website, making this our busiest period on record. This increase in online activity is both reflected by and attributable to the ongoing success and growth of our social media presence.

The number of followers on twitter has risen to 452 against last period's 377. Facebook interaction and membership has also risen to 468 members compared with last period's 423. The number and variety of influential stakeholders, such as MSPs, journalists and business leaders following our updates continues to rise, especially on twitter where our number of followers follows a steady rising trend to 452.

Video podcasts views have risen to 3342 from 2450 on <a href="www.edinburgtrams.com">www.edinburgtrams.com</a> this period, largely attributable to popular video content about both the Edinburgh Sparkles Campaign and the re-opening of Princes Street.

RSS feeds, which actively push information to users were accessed 5,098 times this period – a record for the site, compared with 3,871 last period. "Local Updates" remain in second place, with podcasts continuing to be our most popular RSS item with almost twice as many hits. Partially explained by the increasing popularity of our Facebook and Twitter pages, these figures reveal a consistent trend over the last three periods making our video podcast our single most accessed online communications resource after the facebook and twitter feeds themselves.

Participation in online discussion forums on our Facebook continues to increase. with users now posting some of their own discussion threads about topics which are of interest to them. Photo and video features remain our most popular content items on social media networks.

## 7.5 Logistics

A limited logistic operation has been retained in the Haymarket area during December as a result of the complexity of traffic management. This service will be available to the stakeholders immediately around West Maitland St.

It is also the intention of the logistic team to maintain the cleanliness of those sites which have been left in place over the festive period to accommodate traffic management for tram work.

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#### 7.6 Partner and Stakeholder Communications

Princes Street re-opened on the 29th November complete with tram tracks, central reservation and tram stop, with great success. Excluding cars, traffic is now able to travel the length of the street with Bus stops now operational again.

Worksites are in the process of being removed across Edinburgh as part of the combined city centre Christmas embargo and goodwill gesture on behalf of Edinburgh Trams. Notifications therefore are aimed at giving businesses and residents a snapshot of the upcoming work and traffic management which is due to commence in January 2010. Updates have also been produced on off road sections of work as well. In particular, updates have been produced for Haymarket, the West End, York Place, Broughton Street and the stretch of work between Newhaven and Constitution Street.

Initial visits to schools across Edinburgh to inform the kids of the Tramformer scheme have now finished and visits to the Tram Mock-up and Princes Street site were arranged to give school children an idea of the scale of the project. The next phase of the scheme is now being planned, with site visits due to be arranged for March 2010.

Training for cyclists has been arranged to teach the correct way in which to cycle alongside the tram tracks. Instructors from the Bike Station will be available on Sunday 13th December at Castle Street for free drop in sessions.

A new booklet of tram facts has been produced which contains 20 key facts on the project. The facts cover a range of topics from why we are building the tram route to tram integration with Lothian bus services alongside general facts and figures relating to the length of the route, number of tram stops etc. The tram facts booklet is available to the general public and will be distributed to Edinburgh City Council as well as being available on the Tram Mock-up.

In addition to the tram facts another issue of the Tramlines newsletter will be published during Period 10 which will give an insight into the project. The newsletter will be distributed both internally as well as being available to the public via the Edinburgh Trams website.

Presentations were given to the following during Period 9:

- Newhaven and Leith Harbour Community Council
- Leith Business Association
- Update for Roseberry House Tenants
- Cockburn Association On their concerns over traffic
- Women's Group Merchants Golf Club
- City Regions Conference tie Chief Executive, Richard Jeffrey was a speaker at the conference

#### 7.7 Freedom of Information Requests

During Period 9 there have been 3 requests for information. Information given to a previous request has been asked to be reviewed.

Currently a one family FOISA strategy is being discussed with our partners in order to create a comprehensive system for dealing with requests from the public.

#### 7.8 Winter Festival

Following the launch of the joint Edinburgh Sparkles campaign during the last reporting period the continued joint working with the City of Edinburgh Council, stakeholder groups and other partners, the significant media and marketing strategy has continued to provide heightened publicity within the City, Scotland and throughout the UK.

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A wide variety of events, which Edinburgh Trams contributed both financially through the sponsorship of specific events and marketing materials as well as by way of practical resources has helped to encourage shoppers and visitors alike into the Capital following the re-opening of Princes Street.

In addition to the City Centre campaign through the Edinburgh Sparkles umbrella, tie has also provided support for promoting other areas of the City on the tram route for the festive period. Some of these include assistance in promoting the West End Retailers as well as cosponsoring with the Council, three Christmas trees for Elm Row (Leith Walk); Coates Crescent & Shrubhill and assisting in arranging public relations support for the lighting up of these.

Publicity includes media articles, bill-board advertising taken out at Queens Street Railway Station in Glasgow for the Edinburgh Sparkles Campaign, newspaper advertising as well as joint marketing ventures with other partners within the Edinburgh Sparkles campaign group. **tie** has also supported traders in the Leith Walk and Constitution Street areas of the City in the lead-up to the festive season by removing tram works from Leith Walk and re-opening Constitution Street to through traffic throughout the City Centre embargo period (these areas are not usually covered officially by the embargo).

## 7.9 Customer Service Figures

### a) Transport Scotland - Monthly Customer Service Report 09/11/2009 - 04/12/2009

Item	Volume Month	Volume (Cumulative from 21/11/08)	Performance (Month)	Performance (Cumulative)	Target Performance
Telephone response	228	3376	96	97	90% in 30 seconds
Telephone Same day resolution	212	3253	93	96	Info only
Email 140 acknowledgement		1805	100		100% acknowledged within 24 hours
Email response			100	99	90% resolution in 7 days
Email same day resolution	124	1636	89	91	Info only
Letter acknowledgement	35	134	100		100% acknowledgement within 24 hours
Letter response			100	95	100% resolution in 7 days
Total Enquiry Volumes	403	5315			
Website update	23	971	100	100	Weekly

## b) Out of Standard/Work in Progress statement at month end 04 Dec. 2009

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		Volume of WIP @	Oldest date	Oldest Issue	Handled By
		m/end			
				Bus services  – post tram	Mandy Nelson/John White (Lothian Buses)
	Email	2	30/11/09	2732223777722	
M/e 04 Dec. 2009					
	Letters	0	N/A	N/A	
	Calls	0	N/A	N/A	

## c) Monthly Notifications Performance 09/11/09 to 04/12/2009 and Cumulative from 21 November 2008

## 0 Major notifications

11 Minor notification - 7 for utility (4 in standard 3 out of standard) 4 for tram works (all in standard) 0 Emergency notifications

	Utilities	Tram works	Total	% in		
Notification Type				Standard		
5%	Month	Notifications	0	0	0	
Major works		In Standard	N/A	N/A	N/A	N/A
	Cumulative	Notifications	6	5	11	
		In Standard	0	2	2	18
	Month	Notifications	7	4	11	
Minor Works	AN ONE COOK TAILOR	In Standard	4	4	8	73
	Cumulative	Notifications	78	32	110	
	3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	In Standard	66	24	90	82
Emergency	Month	Notifications	0	0	0	
		In Standard	N/A	N/A	N/A	N/A
	Cumulative	Notifications	14	0	14	
		In Standard	14	0	14	100