



4 Week Period Reporting Pack 08/09

Project Title:

Edinburgh Tram Project

Reporting Period:

Period 06 2008/09

Transport Scotland Project Manager:

John Ramsay

Progress Meeting Date:

Report authorised by: **Steven Bell**

Signature:.....

Date:.....

For and on behalf of tie Limited

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1 Executive Summary

1.1 Key issues

HSQE

There were no RIDDOR incidents in the Period and the AFR for the project is continuing to reduce and is now 0.09 with 106,600 hours worked in the period. This compares well to selected industry benchmarks (shown in section 6). Continued focus is being applied to ensure a range of initiatives are implemented to maintain this trend.

Programme

Overall progress remains behind the master programme. This is due primarily to:

- Design slippages V26 / V31 at time of Contract Close;
- Design slippage since novation of design to Infraco (now at V35); and
- Slow mobilisation of Infraco

A robust and realistic four-month detailed construction programme has now been agreed with BSC. The milestones to be achieved are outlined in section 4.3. Whilst BSC deliver on the activities within this programme, work will proceed with agreement of a revised contract programme. This revised programme will incorporate opportunities to recover these initial delays. These opportunities include use of additional resources, improved productivity, use of alternative technology for OLE installation and track-laying and better use of integrated traffic management. It is anticipated that this work will be complete with a revised Infraco contract programme and overall revision to the Tram Master Project Programme will be ready by the end of this calendar year. Infraco proposals for recovering the effects of their slow mobilisation will be included within the revised programme.

Whilst a straight import of the progressed programme into the master programme forecasts a potential revenue service slippage of up to five months, **tie** is confident that sufficient float and false logic constraints exist in the programme, along with methodology improvements, to maintain OPEN for Revenue Service as July 2011 with a range of May 2011 to December 2011. A detailed breakdown of this potential slippage and opportunities to recover is being produced and will be incorporated in the Period 7 report.

Additionally, the MUDFA Rev07 programme is almost finalised and this will be reflected in the overall update to the Tram Master Project Programme. Any commercial impact of revised programmes will be addressed in line with the final agreement of those programmes.

Progress – Design

SDS road design submissions have slowed as they incorporate necessary CEC comments. CEC have performed well at turning around approvals. BSC management of SDS is being challenged to ensure sufficient focus. The following table identifies outstanding approvals.

Phase 1a only	Submitted to CEC		Granted by CEC		% complete	% of plan
	v31	Actual	v31	Actual		
Prior approvals (52)	52	47	50	39	75%	78%
Technical approvals (73)	71	64	46	41	56%	89%
IFC (submitted to tie) (86)			64	47	55%	73%

Phase 1a and 1b	Submitted to CEC		Granted by CEC		% complete	% of plan
	v31	Actual	v31	Actual		
Prior approvals (70)	70	64	68	56	84%	82%
Technical approvals (95)	93	86	67	61	64%	91%

IFC (submitted to tie) (117)		94	74	63%	79%
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Two additional IFCs have been identified for additional works (not incentivised). Key design areas affecting critical path are identified within the main report.

Progress – MUDFA

Carillion has appointed a new Project Director as a result of tie's management intervention to address Carillion's poor performance. Over the past period an improvement in management approach has been noticeable and improved outputs are expected as a direct result.

Progress – Infraco (including Tramco)

Summary against the agreed milestones is shown in the table below (number of milestones)

	Period			Cumulative		
	Planned	Achieved	%	Planned	Achieved	%
Prelims	3	3	100%	18	18	100%
Construction	19	0	0%	54	0	0%
Total	22	3	14%	72	18	25%

Issues with slow mobilisation have been discussed. However, work has commenced on a number of worksites including Haymarket Viaduct, Edinburgh Park Viaduct and A8 underpass all commenced. Detailed progress reporting on the four-month construction programme will be in all future period reports.

The Tram mock-up is on programme.

Progress – Other

Pollution prevention works at the Scotrail Haymarket depot are reported to be on the NR programme for completion in November 2008.

Construction works for the relocation of the Murrayfield training pitches are progressing with approximately one week's slippage reported due to bad weather. The contractor aims to recover this over the next two periods.

Cost

The AFC for Phase 1a of the project remains unchanged from last period at £512m, including a revised risk allowance of £28.9m (up £0.5m from Period 5 see below). Funding available remains at £545m.

Cumulative expenditure to date (end of P6 08/09) on Phase 1a is £177.4m. COWD year to date, at £47.4m, is £11.5m lower than the 'budget' for the year to date. This is primarily due to delayed closure of the Infraco contract suite, slow Infraco mobilisation and delayed completion of land acquisition costs.

The FY08/09 outturn forecast has been reduced by £11.8m and now stands at £138.8m including a revised conservative risk allowance of £8.0m.

The current 12-week look ahead of the Infraco programme has established a revised position to the end of December 2008, which incorporates a realistic forecast linked to the completion of key milestone activities. Further detailed analysis of the programme, including discussion with the Infraco contractor is in progress to confirm the full year programme up to the end of March 2009. The completion of this exercise in Period 7, together with the finalising of the

MUDFA Rev07 programme, will provide better confidence of the new full year forecast. However, early indications are that the current year end figure of £138.8m should be treated as an interim position, with the understanding that it may be further reduced next period.

Based on the revised outturn above, the TS share of Phase 1a costs in FY08/09 at 91.7% (500/545) would be between £120m of Base Costs excluding risk allowance or £127m of the total costs, including Risk Allowance. This is being kept under review in the context of FY0809 funding allocated to the project by TS of £120m.

Risk

In the Period 5 report it was stated that £0.6m of contingency was to be drawn down to fund additional traffic management requirements which will arise when Infraco assume control of the Guided Busway in November 2008. Subsequently, it was determined that this work will now be funded from the Infraco provisional sum for wide area network measures.

The detailed development of the Infraco element of the Project Risk Register and associated treatment plans has progressed well in Period 6 and the QRA will be updated in Period 7. Four broader risks with potential to impact the Infraco works have been highlighted and are being treated:

- Infraco unable to commence works or work is delayed or disrupted (includes mobilisation by Infraco, conflicts with utilities work completion and traffic management interface requirements);
- Changes to the final design during approvals / final design completion (the design and consents task force provides focus and control for identifying and addressing any such items);
- "Partnership" approach between **tie** and BSC is not effective with the potential to impact third party relationships (**tie** continue to lead and engage with the Consortium Directors and their parent companies in addition to effectively measuring and reviewing BSC engagement with third parties); and
- Shortage of competent resources within BSC to effectively deliver the Infraco works (key personnel recruitment, mobilisation and performance is being scrutinised and formally tracked to ensure BSC are addressing any areas of weakness).

Communications

The team has been working closely with stakeholders throughout the route regarding all upcoming tram works through notifications, face to face engagement and website updates. Particular focus has been on the upcoming utility diversions at The Mound and city centre and the preparation for the tram works on Leith Walk.

The TRO design presentations will start on 23 September. The presentations are divided into four areas: Newhaven, Leith Walk, city centre and the West End and beyond. This process is being led by CEC with **tie** facilitating.

The closing date for applications for the Small Business Support Scheme was 31 August 08. Over £1.5 million has been paid out to local businesses and, following a meeting on 25 September, a decision will be made as to how best deploy the remaining resources available to the business community.

2 Progress

2.1 General / overall

Land and Property

- NR – Expected to conclude the Bridge Agreements drafting by the end of September and agree an Operating Agreement with NR by mid-October;
- The SRU agreement was executed by CEC during the period;
- Forth Ports – SDS have been instructed to prepare the final agreement plans and **tie** are awaiting confirmation for pricing on enhanced finished for Ocean Terminal tramstop from BSC;
- Haymarket carpark compensation – a value has been obtained from First ScotRail and discussions are ongoing with TS regarding the franchise extension; and
- Building fixings – consent has been received (deemed consent or consent with agreement) from 364 owners for 92 fixings. There are 30 fixings (28 owners) where matters remain unresolved. Negotiations are underway with the owners of these and at least five are expected to be resolved shortly. However, there remains a possibility that all 28 owners may have to be referred to the Sheriff for resolution. CEC are leading the legal process, supported by the project team.

Network Rail

- The scope and programme for the NR immunisation work is being developed with Infraco. The preferred approach is to avoid invasive changes to NR infrastructure and this will be verified by means of a detailed simulation study by Infraco;
- Infraco will be developing the full assurance case for NR acceptance. NR has now assigned their approvals specialist to assist Infraco with their assurance case, which is expected to be completed by September 2008;
- The lift and shift project scope is complete. Additional works identified are
 - Scottish Power cable – mitigation is to work around the route of the cable; and
 - C&W cable at the Water of Leith bridge – SDS has designed a diversion and the works will be transferred into Infraco scope although the apparatus will be moved by C&W;
- The pollution prevention project at Haymarket depot remains on NR's programme for completion in November 2008. A local agreement with First ScotRail has been reached to accommodate any potential overlap between completion of the pollution prevention activities and commencement of the Infraco works.

General

- Murrayfield pitches are currently progressing one week behind program due to bad weather. The contractor aims to recover this over the next two periods.

2.2 Critical path

- The critical path has remained largely unchanged during the period albeit a number of activities have moved onto the critical path and are being monitored;
- SDS, as part of the Infraco consortium, continue to work closely with BSC to mitigate any remaining design issues although the following remain as design critical activities:
 - Section 2A track and roads – contract programme track gang logic forces on-street track installation into embargo periods thus delaying overall programme;
 - Section 5B track and roads – contract programme track gang logic forces on-street track installation into embargo periods thus delaying overall programme;
 - W18 Murrayfield tramstop retaining wall – approvals process delayed, awaiting change control estimate from BSC;
 - S26 South Gyle access bridge (IFC design issued but clash with sewer);
 - Section 5C track and roads; and
 - Depot roads;

- Revision 07 of the MUDFA Construction Programme is expected to be signed-off and issued during Period 7. This programme revision will take account of the more detailed information available from IFC designs, the traffic management / enabling works requirements and the potential interface with Infraco, but is expected to highlight potential conflicts in the following areas:
 - London Road roundabout south on Leith Walk chainage 0-375m to allow Infraco road works to proceed;
 - Edinburgh Park tramstop to Bankhead tramstop to allow Bankhead Drive retaining wall and South Gyle access bridge to progress;
 - Gogarburn tramstop to Edinburgh Park tramstop to allow Gyle tramstop retaining wall and track installation to progress; and
 - Gogar depot 800mm water main delaying full access to earthworks; andThese are all being addressed by mitigation / treatment plans to minimise any impact;
- The Infraco construction programme is currently under review. The current Infraco critical activities are as follows:
 - Section 1b roads / track;
 - Section 2 track;
 - S23 Carricknowe bridge;
 - Section 5B track and roads;
 - S26 South Gyle access bridge (IFC design issued but clash with sewer);
 - W11 Bankhead drive retaining wall;
 - Section 5C track and roads;
 - W16 Gyle tramstop retaining wall;
 - A8 underpass;
 - Depot earthworks; and
 - S29 Gogarburn under-bridge.

2.3 Procurement consultant

- This phase is now complete.

2.4 Design

- Awaiting copy of the latest design programme from BSC (V36). Design dates used in the programme remain at V35.

2.5 Financial / funding / procurement strategy

- This phase is now complete.

2.6 Parliamentary process / approvals

- This phase is now complete.

2.7 Procurement construction works

- This phase is now complete.

2.8 Construction works

MUDFA

- Constitution Street – Works continued in period from Duke Street to Baltic Street and Tower Street in line with section programme;
- Leith Walk – Intensity of work in Leith Walk, particularly from chainage 100-350 focusing on an end of September completion prior to Infraco commencing in this area in early October 2008;

- London Rd – Works south of London Rd recommenced on 1st September 2008 and the Phase 3 traffic management to complete telecom element will be implemented earlier than previously planned. The construction of two BT chambers carried out over the embargo, adjacent to the Cathedral and Church, were completed within the period;
- Works within St. Andrew Street (north), Princes Street (east), George Street and South St David Street recommenced, as planned, on 1st September 2008;
- Utility diversion works commenced at Haymarket area on 18th August 2008. Currently reviewing de-scoping and alternative working methodology targeting a pre-Christmas 2008 completion;
- Awaiting confirmation from SGN that the proposals for de-scope section of works at Haymarket Yards are acceptable. Subject to satisfactory response, minor diversion required for SW main;
- Critical signalling works at South Gyle installed w/c 8th September 2008. Works ongoing completion of remaining elements anticipated by 26th September 2008;
- Utility diversion works have completed at Gogar roundabout;
- 800mm water main – late delivery of two valves means that completion of water main (diversion of flows) is now 30th September 2008. This will enable the depot earthworks programme to continue through the existing water main area. Final tie-ins will be complete by 6th October 2008; and
- 1,500mm Sewer diversion works commenced in period. Works on programme for 23rd January 2008 transfer of flows.

Infraco

As stated in the Executive Summary, mobilisation is slower than expected, compared to the contract programme. Work is now being undertaken in line with the three-month detailed construction programme. Activities started, in progress and completed include:

- Demolitions in progress at Roseburn Street/Russell Road.
- S19 Haymarket viaduct, S27 Edinburgh Park Station bridge and A8 underpass works have been started;
- S20 Russell Road bridge, S21E Water of Leith bridge and S23 Carricknowe bridge works are all at their early stage of mobilisation and clearance works. Main construction works are expected to start during Period 7 following pre construction activities approval (including WPP and Form C); and
- Road surveys that commenced during Period 5 with respect to the Infraco proposals for roads and drainage at Princes St and Shandwick Place are progressing with the identified reports being discussed with stakeholders.

Advanced works

- Preparation for the removal of remaining 50,000m³ of earthworks is now underway; and
- Invasive species 5th visit taking place in September.

2.9 Testing and commissioning

- This phase has not yet commenced

2.10 Hand over and service operations

- This phase has not yet commenced

2.11 Network output programme interface (with Transport Scotland)

- N/A

2.12 Interface with other projects

A matrix of the risks associated with the interface with other external projects has been prepared and has identified the following:

- CEC St. Andrew Square Streetscape works – integrated with MUDFA and enabling works;
- Invasive species eradication programme – integrated with Infraco programme logic;
- Airdrie to Bathgate – Integrated with Infraco for disruptive possessions;
- NR pollution prevention works – Interfaces with Infraco works at Murrayfield and particularly S21A Roseburn St viaduct;
- St James centre development – to be reviewed with CEC;
- Waverly re-roofing programme – to be reviewed with TS;
- Waverley steps programme – to be reviewed with TS;
- Gogar Surface station programme – to be reviewed with TS;
- National Portrait Gallery refurbishment;
- Murrayfield pitches relocation – Programme has been incorporated into the master programme. Contractor has set up on site and site clearance has been completed. The drainage works have been started;
- Haymarket interchange Project (HISAM);
- Haymarket Station refurbishment;
- RBS tramstop at Gogarburn;
- Tiger Development – new hotel at Haymarket junction.

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 is being sought with TS in Period 7.

3 Headline cost report

3.1 Current financial year

	FY 08/09 COWD Period			FY 08/09 COWD Year To Date			FY 08/09 COWD Full Year Forecast			COWD To Date Actual	Costs To Go Forecast	Total AFC Forecast
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance			
Total Project COWD	3.744	8.763	-5.018	47.382	58.926	-11.544	138.760	150.851	-12.091	177.422	334.594	512.017
Other Funding	0.309	0.724	-0.414	3.344	4.297	-0.953	18.760	30.852	-12.091	14.649	24.865	39.515
Demand on TS	3.435	8.039	-4.604	44.038	54.629	-10.591	120.000	120.000	0.000	162.773	309.729	472.502

- Year to date COWD is £11.5m lower than 'budget' (Period 5 £6.5m) due to:
 - Delayed award of Infraco and Tramco and slow mobilisation - £8.3m (Period 5 £4.0m) – note that, although the contracts were awarded four weeks later than was anticipated, at the time the 'budget' profile was established, the key milestones in the contractual programme including the commencement of revenue service in July 2011 were unaffected;
 - £1.6m of profiled Risk to P6 which has not been utilised to this point; and
 - Other timing differences £1.7 (as Period 5) include the completion of land acquisition costs which are now anticipated to be concluded in Q4 this financial year and have no consequential impact on any other element of the programme;
- Effective mitigation of programme slippages are being developed and agreed with both the MUDFA and Infraco contractors with a view to ensuring there are no conflicts between the utilities and infrastructure programmes and the scheduled opening date of the tram in July 2011 is not delayed; and
- The full year FY08/09 expenditure has been reduced by £11.8m to £138.8m, as profiled in the table below. This position includes a reduction in the Infraco forecast of £12.4m. The current 12-week look ahead of the Infraco programme has established a revised position to the end of December 2008, which incorporates a realistic forecast linked to the completion of key milestone activities. Further detailed analysis of the programme, including discussion with the Infraco contractor is in progress to confirm the full year programme up to the end of March 2009. The completion of this exercise in Period 7, together with the finalising of the MUDFA Rev07 programme, will provide better confidence of the new full year forecast. However, early indications are that the current year end figure of £138.8m should be treated as an interim position, with the understanding that it may be further reduced next period.
- Payment applications submitted by CEC to TS have been adjusted to reflect the cumulative cash requirements of the 12-week look ahead.

Reforecast profile for FY08/09

£m	YTD	P7-9	P10-13	Total FY08/09
Infrastructure and vehicles	14.3	28.0	34.3	76.6
Utilities diversions	21.4	7.4	2.8	31.5
Design	3.0	0.7	0.2	3.9
Land and compensation	1.1	1.4	1.0	3.5
Resources and insurance	7.6	3.4	4.2	15.2
Base costs	47.4	40.9	42.6	130.8
Risk allowance	0.0	0.0	8.0	8.0
Total Phase 1a	47.4	40.9	50.5	138.8
Phase 1b	0.0	0.0	3.7	3.7

- The Phase1b costs are provided for information only and reflect the commencement of Phase 1b utility diversions in late 2008 if there is a resolution to the additional funding requirements for Phase 1b to the satisfaction of CEC and Transport Scotland at that time;
- The proportion of the overall risk allowance allocated to the year, proportionate to the level of forecast base costs, is £8.0m, which is considered conservative;
- Based on the revised outturn above, the TS share of Phase 1a costs in FY08/09 at 91.7% (500/545) would be between £120m of Base Costs excluding risk allowance or £127m of

the total costs, including Risk Allowance. This is being kept under review in the context of FY0809 funding allocated to the project by TS of £120m; and

- As previously reported and agreed with CEC and TS, initial milestones under the Infraco and Tramco contracts, in respect of advance material purchases, will be classified as prepayments. The aggregate amount of these payments for advance material purchases is £24.2m. These prepayments will be reclassified as expenditure against funding in the periods in future years when the related materials are delivered to site and incorporated in the works.

3.2 Next financial year

- The forecast COWD for FY09/10 is shown in the table at 3.3 below. The significance of reducing the current year forecast by £11.9m has resulted in a reported increase of £10.4m for FY09/10 (including risk); and
- The sensitivities of this amount are the same as for FY08/09 above; changes to the programme, significant variations to the works and the extent to which there will be call on the risk allowance profiled to that year of £13.0m. Note that all utility diversions costs are currently anticipated to be spent by the end of FY08/09.

3.3 Total project anticipated forecast cost

Phase 1a AFC and profiling

£m	Cum FY0708	FY0809	FY0910	Balance	AFC
Infrastructure and vehicles	30.7	76.6	127.1	70.5	304.9
Utilities diversions	18.4	31.5	0.0	0.0	49.9
Design	21.4	3.9	0.6	0.8	26.8
Land and compensation	16.8	3.5	0.2	0.0	20.6
Resources and insurance	42.7	15.2	10.1	12.8	80.9
Base costs	130.0	130.8	138.0	84.2	483.1
Risk Allowance	0.0	8.0	13.0	8.0	28.9
Total Phase 1a	130.0	138.8	151.0	92.2	512.0
Phase 1b	3.0	3.7	29.3	51.3	87.3

- As previously agreed, cumulative costs incurred to the end of FY07/08 also include £3m incurred on Phase 1b design, meaning that total costs to the end of FY07/08 were £133m; and
- The estimate for Phase1b is based upon unit costs in the Infraco and Tramco contracts and is subject to finalisation in accordance with a value engineered and approved / consented design and programme. The finalised price will be valid if an option under the Infraco contract is exercised in sufficient time to allow construction of Phase 1b to commence in July 2009. Infraco have commenced formally estimating this finalised price to inform the current update of the Phase 1b Business case and capital expenditure.

3.4 Change control

- The current change control position is summarised in the table below:

BASE ESTIMATE	498.10	87.30	585.40
APPROVED CHANGES - to Financial Close	13.91	0.00	13.91
CONTROL BUDGET - Baseline	512.02	87.30	599.32

APPROVED CHANGES - post Financial Close	0.00	0.00	0.00
REVISED CONTROL BUDGET	512.02	87.30	599.32

ANTICIPATED CHANGES	0.00	0.00	0.00
CURRENT AFC	512.02	87.30	599.32

PREVIOUS AFC	512.02	87.30	599.32
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- Base estimate – The position at Final Business Case (Oct 2007);
- Approved changes to Financial Close – The financial impact of the project control budget having been reset to reflect final Infraco and Tramco Contract Award levels and a consequential reappraisal of the risk allowance. This was approved at the Tram Project Board on 4th June;
- Control budget baseline (New Project Control Budget) – The baseline within which all future project change control will be reported against;
- Approved changes post Financial Close – Tram Project Board approved changes from this point on. There are none to report with financial effect on the Control Budget at this point. The funding for the utility (sewer) diversionary work at Gogar and the Infraco main site office rental costs have been met from a drawdown of funds from the project risk allowance; and
- Anticipated changes – Future potential changes that are work in progress prior to formal approval. There are none to report at this point.

4 Time schedule report

4.1 Report against key milestones

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

Milestones	Baseline programme date	Actual / current forecast date
Approval of DFBC by CEC	21 Dec 06A	21 Dec 06A
TRO process commences	14Dec07A	
MUDFA – commencement of utility diversions	02 Apr 07A	02 Apr 07A
Approval of FBC by TS – approval and funding for Infraco / Tramco	09 Jan 08	Dec 07A
Tramco / Infraco – award following CEC / TS approval and cooling off period and SDS novation.	28 Jan 08	14 May 08A
Construction commences	14-Apr-08	14-May-08A
Haymarket viaduct commences	08-May-08	01-Sep-08A
Edinburgh Park viaduct commences	06-Aug-08	01-Sep-08A
A8 underpass commences	08-Aug-08	28-Aug-08A
Carricknowe Bridge commences	21-Aug-08	21-Oct-08
All demolition work complete	22-Aug-08	25-Nov-08
Tram mock-up delivered	Oct 2008	Oct 2008
First track installation commences – on street	03-Nov-08	03-Nov-08
MUDFA works complete	Nov 2008	Mar 2009
Haymarket viaduct complete	08-Dec-08	24-Mar-09
Roseburn viaduct commences	20-Jan-09	20-Jan-09
Design assurance complete	20-Jan-09	15-May-09
All Issue for Construction (IFC) drawings delivered	21-Jan-09	21-Jan-09
Princes Street closed	03-Feb-09	03-Feb-09
Roseburn viaduct complete	20-Apr-10	20-Apr-10
Carricknowe bridge complete	11-May-09	14-Jul-09
All consents and approvals granted	18-May-09	18-May-09
Edinburgh Park viaduct complete	24-May-09	24-May-09
A8 underpass complete	14-Jul-09	04-Aug-09
Princes Street re-opened	01-Aug-09	01-Aug-09
NR immunisation complete	Nov 2009	Nov 2009
TRO process complete	01-Dec-09	01-Dec-09
1 st OHL installed	11-Dec-09	11-Dec-09
Commission Section 2 (Haymarket to Roseburn junction)	11-Jan-10	11-Jan-10
Commission Section 6 (depot)	25-Mar-10	25-Mar-10
1 st Tram delivered	09-Apr-10	09-Apr-10
Test track complete	23-Apr-10	23-Apr-10
1 st section (other than depot) complete ready for energisation	25-June-10	25-June-10
Commission Section 7 (Gogar to Edinburgh Airport)	25-June-10	25-June-10
Driver recruitment commences	July 2010	July 2010
Commission Section 5 (Roseburn junction to Gogar)	09-Nov-10	09-Nov-10
Driver training commences	Nov 2010	Nov 2010
System testing complete off street	09-Dec-10	09-Dec-10
Final tram delivered	17-Jan-11	17-Jan-11
Construction Line 1a complete	17-Jan-11	17-Jan-11
System testing complete on street	16-Feb-11	16-Feb-11
Commission Section 1 (Newhaven to Haymarket)	11-Mar-11	11-Mar-11
Letter of "no objection" from Independent Competent Person to commence tram running	17-Apr-11	17-Apr-11
Shadow running starts	18-Apr-11	18-Apr-11

Shadow running complete	July 2011	July 2011
Letter of "no objection" from Independent Competent Person to commence revenue service	July 2011	July 2011
Open for revenue service	July 2011	July 2011

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.

Red:

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

4.2 Key issues affecting schedule

Mitigation for all of the issues noted below is underway to maintain and protect the contract programme. Each area is being managed with full visibility and ownership by **tie**'s project management team. Full integration of the issues and the proposed solutions continue to be carried out during September with Infraco. A more settled integrated programme, with attendant contingency recovery plan has been set out, agreed and implemented for the next four periods to the end of 2008. It is anticipated that the full integrated programme will be developed and agreed by the end of the calendar year.

General

- Telecoms service providers programme impact on Infraco construction programme continues to be monitored with emphasis in the following areas
 - BT cabling and chamber at Foot of the Walk;
 - BT and Easynet cabling adjacent South Gyle tramstop retaining wall;
 - BT and Easynet cabling at Bankhead Drive retaining wall; and
 - BT cabling at South Gyle access bridge.

Design

- W3 / W4 Russell Road bridge design for wingwall to be modified to avoid clash with existing sewer, this is being investigated at the moment;
- S26 South Gyle access bridge design for west abutment to be modified to avoid clash with existing sewer;
- Section 7B utility design and build programme is included within Revision 07;
- On-street roads / drainage design;
- SGN medium pressure main in Section 1B (protection option now agreed);
- SGN medium pressure main at IPR;
- Sewer / irrigation drain Murrayfield pitches / S21E Water of Leith bridge;
- Power cable Murrayfield pitches / S21C Underpass / S21D retaining wall; and
- Sewer at S29 Gogarburn bridge.

The approvals taskforce, comprising SDS, CEC and **tie**, is operating effectively to mitigate the design issues above.

MUDFA

- Balfour Street to Foot of the Walk the completion of utility diversions and telecoms to allow access for Infraco road works at chainage 100-350;
- London Rd roundabout south on Leith Walk chainage 0-375m to allow Infraco road works to proceed;
- Haymarket to east end of Shandwick Place to allow Infraco roadworks to commence in January 2009;
- Edinburgh Park tramstop to Bankhead tramstop to allow Bankhead Drive retaining wall and South Gyle access bridge to progress;
- Gogarburn tramstop to Edinburgh Park tramstop to allow Gyle tramstop retaining wall and track installation to progress; and
- Gogar depot 800mm water main completion to allow full access to earthworks.

Infraco

- Slow mobilisation of Infraco package contractors; and
- Installation of bridge beams at Edinburgh Park viaduct and Carricknowe dependant of pre-booked disruptive possessions.

4.3 12 week look ahead

Will be included as a separate file via CD.

The table below shows the key milestones over next 3 months to reflect the MUDFA Rev07 and the 12-week programme agreed with BSC.

	MUDFA	INFRAACO
September-08	Baltic St	
	Forth Ports	S19 Haymarket viaduct – commencement of excavations
	Continue Leith Walk south	Complete consortium office
	Continue Leith Walk close-out	Continue Murrayfield pitches-Souters
	Finalise enabling on George St / St. Andrew Square	Demolitions on Roseburn Street buildings
	Finalise Princes St (South St. Davids – South St Andrews)	S23 Carricknowe Viaduct – fencing and haul roads
	St Andrews Square	S20 Russell Road Bridge – TM and site clearance
	York Place / Picardy Place	Haymarket – Roseburn – track excavation
	West End junction	Bankhead to Edinburgh Park South track excavation
	The Mound	S26 South Gyle Access Bridge – fencing and site clearance
	Haymarket	S27 Edinburgh Park Viaduct – Establishment and haul roads
	Continue Edinburgh TS to Gogarburn roundabout	A8 underpass – Phase 1 (North side)
	A8 sewer	Depot – Building foundations, Access roads, earthworks
	Complete depot	S21B Murrayfield RW – Site clearance
Airport		
October-08	Baltic St	Commence Leith Walk roads chainage 100-350 (Cassel bank Street up to the Walk)
	Forth Ports	W3 / W4 Russell Road
	Continue Leith Walk South	Haymarket Viaduct – foundations and sub-structure
	Continue Leith Walk Close-out	S29 Gogarbridge surcharge and piling for abutments
	St Andrews Sq	Haymarket to Roseburn Junction track excavation
	York Place / Picardy Place	W3 / W4 Russell Road RW's – foundations
	The Mound	Murrayfield pitches
	Haymarket	S21B Murrayfield retaining wall piling
Continue Edinburgh TS to Gogarburn Roundabout	S21C Murrayfield stadium underpass – site clearance	

	A8 sewer	S23 Carricknowe viaduct – excavation
	Airport	S20 Russell Road bridge – piling and abutments
		S26 South Gyle Access Bridge – piling and abutments
		Balgreen – Saughton track excavation
		W11 Bankhead drive retaining wall-site clearance and piling
		S27 Edinburgh Park viaduct – Approach ramps
		A8 underpass – Phase 1 (North side)
		Depot – Building foundations, Access roads, earthworks
November-08	Forth Ports	Leith Walk Roads chainage FOW junction
	Tower Street and Constitution Street	Continue all the above structures
	Complete Leith Walk south	1A roads and tracks
	Complete London Rd to Picardy Place	1B roads and Tracks
	Continue Picardy Place to York Place	Lindsay Road retaining wall
	Continue St. Andrew Square	Depot access roads
	Continue The Mound	Depot building ground beams
	Continue Haymarket	
	Continue A8 sewer	
	Continue airport	

5 Risk and opportunity

5.1 Summary

Infraco Risk Review

The detailed development of the Infraco element of the Project Risk Register and associated treatment plans has progressed well in Period 6 and the QRA will be updated in Period 7. Four broader risks with potential to impact the Infraco works have been highlighted and are being treated:

- Infraco unable to commence works or work is delayed or disrupted (includes mobilisation by Infraco, conflicts with utilities work completion and traffic management interface requirements);
- Changes to the final design during approvals / final design completion (the design and consents task force provides focus and control for identifying and addressing any such items);
- "Partnership" approach between **tie** and BSC is not effective with the potential to impact third party relationships (**tie** continue to lead and engage with the Consortium Directors and their parent companies in addition to effectively measuring and reviewing BSC engagement with third parties); and
- Shortage of competent resources within BSC to effectively deliver the Infraco works (key personnel recruitment, mobilisation and performance is being scrutinised and formally tracked to ensure BSC are addressing any areas of weakness).

MUDFA

The MUDFA Risk Register was reviewed with the MUDFA Construction Director. Risk Id 342 (A8 sewer) has been closed following the drawdown of this risk. The Construction Director has identified a potential drawdown on Risk Id 139 to deal with the diversion of a 800mm gas main at Ingliston. This is being reviewed with SGN to minimise any diversion requirement.

Guided Busway

In the Period 5 report it was stated that £0.6m of contingency was to be drawn down to fund additional traffic management requirements which will arise when Infraco assume control of the Guided Busway in November 2008. Subsequently, it was determined that this work will now be funded from the Infraco provisional sum for wide area network measures.

Risks closed

There were four risks closed in the period. These were minor in terms of risk allowance and the value of these risks was transferred to contingency (£45k).

QRA

The QRA was updated to reflect the drawdown for the A8 sewer diversion, the reduction of risk within MUDFA and the closure of the four risks previously mentioned. The total risk and contingency for the project is now £28.9M.

5.2 Review project risk register

Top risks

The top risks in the Primary Risk Register are:

- **Risk Id 918:** *CEC are unable to honour their funding commitments:*
 - Two of the mitigating actions are complete and one will be ongoing as the project progresses. Effective action is in place here from CEC and good visibility is provided to the project team;
- **Risk Id 139:** *Uncertainty of utilities location and consequent required diversion work / unforeseen utility services within LoD, and Risk Id 164:* *Unknown or abandoned assets or unforeseen / contaminated ground conditions affect scope of MUDFA work:*

- These risks pertain to the MUDFA contract and are being mitigated by trial excavations in order to confirm the location of utilities. This information is then passed to the designer. This process will continue until the design is complete;
- **Risk Id 31:** *Bankhead Drive retaining wall: BT and Easynet diversion work not due to be completed till the end of January 2009. However, work on the structure was due to start mid-June 2008, and Risk Id 30: South Gyle access bridge: BT diversion work not due to be completed till the end of September 2008. However, work on the bridge was due to start mid-June 2008:*
 - Both risks 30 and 31 are caused by a delay in the MUDFA diversion works. The Infraco and MUDFA project managers have met on site to try and find a resolution to this issue although additional resources will be required to complete the BT diversion works to mitigate impact on the Infraco programme.
- **Risk Id 1033:** *Failure of Infraco to mobilise in time to commence work in line with programme.*
 - This risk was added in Period 3 to reflect **tie's** concern at Infraco's slow mobilisation. Mitigation includes the programme integration review currently underway.

5.3 Risk action plan for next period

Risk mitigations are identified in the Primary Risk Register and treatment plans are under further development.

5.4 Review project opportunity register

On Contract Award, a number of value engineering initiatives were instructed and will be progress in line with the contract. Future VE opportunities have been identified and a team is being set up to specifically target realisation of such initiatives. This will be reported on in greater detail in Period 7.

6 Health, safety, quality and environment

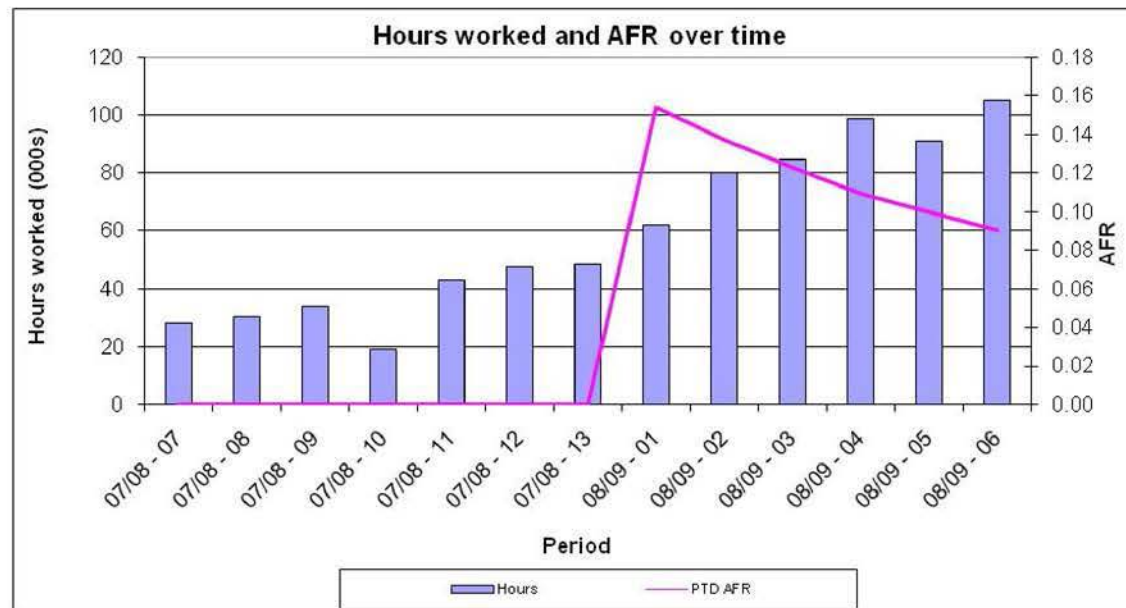
6.1 H and S accidents and incidents, near misses, other or initiatives

- There were no RIDDOR incidents in the period; and
- The AFR for the project continues to reduce and is now 0.09 (106,600 hours in the period) which is a strong industry performance (see table below).

Comparison with Tram Project AFR with industry performance is shown in the table below.

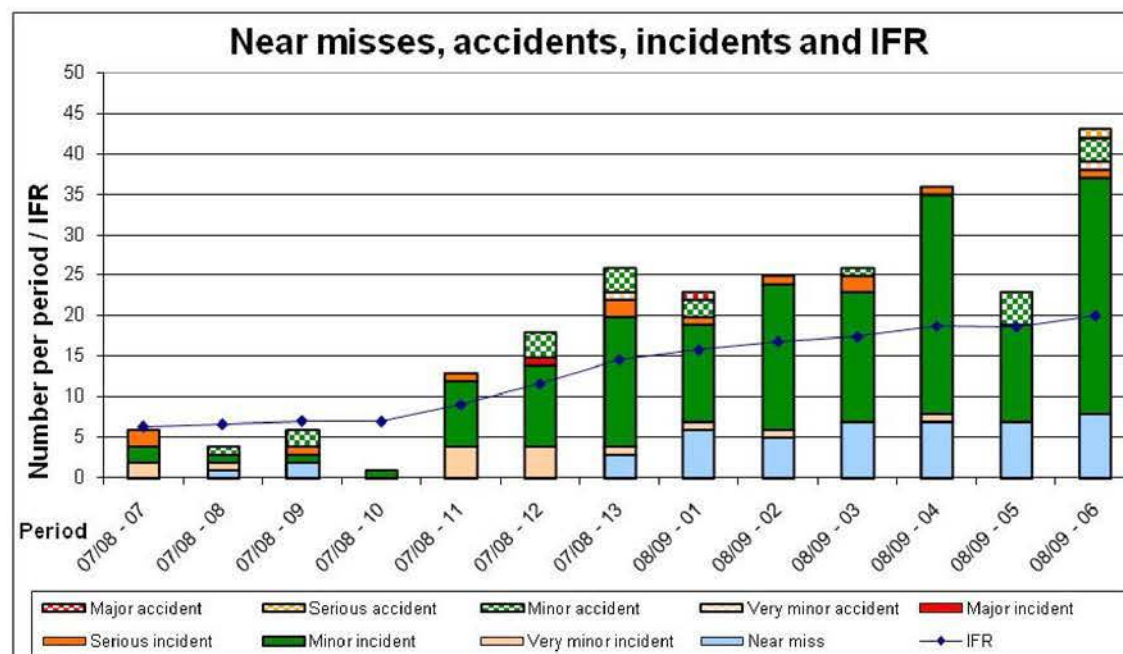
Organisation	YTD AFR
Scottish Water Solutions	0.28
May Gurney Integrated Services	0.16
Carillion Civils	0.22
Carillion Infrastructure	0.26

The trend in AFR and hours worked is shown in the table below.



- There were six minor accidents, 1 serious incident, 29 minor incidents and 8 near misses reported in the period.

The trend in near misses, accidents, incidents and IFR is shown in the table below.



- All incidents are under investigation and 22 of the 44 accidents, incidents and near misses this period have been investigated, actions agreed, implemented and closed;
- There are a further 32 open incidents which are awaiting investigation reports and closure. These are being progressed and there has been a further reduction in the backlog during the period;
- The RIDDOR investigation report has been revised and re-submitted to **tie** with 9 out of 10 recommendations now closed; and
- The incident classed as serious related to a report of a pedestrian falling into an excavation outside a pub in Leith Walk. Interim reports suggest that edge protection was in order. However, the member of the public appeared to be incapacitated prior to stumbling.

6.2 Environment

- There were no environmental incidents reported in the period; and
- An area of contaminated land was identified in the area of the A8 sewer diversion in Period 5. Arrangements are underway for the disposal of the material by a specialist contractor.

6.3 Quality

- Three audits were scheduled for Period 6 due to annual leave overlaps between auditors and auditees; 1 was completed (BSC Project Management Plan), no findings were raised.
- A two day audit was completed by **tie** on Carillion during Period 5 focusing on quality procedures, inspection and test plans and reinstatement / hand-back processes. There were two issues identified within the systems audited, management control and comprehensive nature of inspection and test plans. An action plan is agreed with Carillion to address these. Management arrangements and controls have been reinforced by Carillion and additional senior staff are now deployed onto the project. Reinstatement assurance arrangements have also been addressed with proposals being finalised for closing out necessary assurance and testing. This includes an updated

regime that has now been instigated with additional documented evidence of inspections;

- 6 NCRs were raised and 7 closed in the period; and
- There are 10 outstanding NCRs from previous periods. Close-out of these is being continued and should be completed by the end of Period 7.

7 Stakeholder and communication

7.1 Stakeholder / communication strategy / plan

The structure and responsibilities of the Communications and Stakeholder team are under review and changes will be made in the next period. The Communications and Stakeholder Strategy will be refreshed for the next stage of the project. This revision will include members of the **tie** Communications and Stakeholder team and key members of the CEC's communications team.

7.2 Stakeholder / communication update

Throughout the last period, the team has engaged, informed and consulted through the following methodologies:

As part of the media strategy a statement on The Mound was released for the upcoming utility diversions at the end of September. Other media enquiries included Granton and Line 1b. Willie Gallagher was interviewed at the Scottish Transport Conference on 16 September for a special feature in The Scotsman.

The team has been working closely with stakeholders throughout the route regarding all upcoming tram works through notifications, face to face engagement and website updates. Particular focus has been on the upcoming utility diversions at The Mound and city centre and the preparation for the tram works on Leith Walk.

44,000 invitations for the Traffic Regulation Order (TRO) Design presentations were distributed this period to businesses and residents throughout the route. The events are taking place in September and October.

The closing date for applications for the Small Business Support Scheme was 31 August 08. Over £1.5 million has been paid out to local businesses and a decision will be made in the next period as to how best deploy the remaining resources available to the business community.

The first meeting was held to discuss the Tram School's Programme. This programme is being led by CEC and **tie**.

7.3 Communication and stakeholder action plan for next period

Media activity next period will be focused on utility diversions at The Mound, London Road and infrastructure works on Leith Walk and the A8 underpass. Notifications and stakeholder engagement will also take place to support these works.

Updates will be produced for utility works on The Mound, Leith Walk and London Road / Elm Row, plus an update on the upcoming infrastructure works on Leith Walk. The September fact sheet will also be distributed.

The TRO design presentations will start on 23 September. The presentations are divided into four areas: Newhaven, Leith Walk, city centre and the West End and beyond. This process is being led by CEC with **tie** facilitating.

A meeting will be held on 25 September to discuss the remaining resources available from the Small Business Support Scheme.

Appendix 'A' Detailed cost report

Appendix 'B' Change control register

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

Appendix 'C' Programme information

To be sent separately by CD:

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

Appendix 'D' Primary risk register

Appendix 'E' Resource information

(Updated Organisation Charts, Notifying Changes of Key Personnel – N/A)