



4 Week Period Reporting Pack 08/09

Project Title:

Edinburgh Tram Project

Reporting Period:

Period 05 2008/09

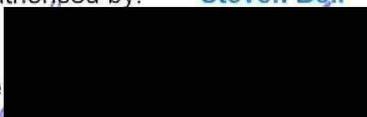
Transport Scotland Project Manager:

John Ramsay

Progress Meeting Date:

Report authorised by: **Steven Bell**

Signature



Date: 22/8/08

For and on behalf of **tie Limited**

Contents	Page
1 Executive Summary	3
2 Progress.....	7
3 Headline cost report	11
4 Time schedule report.....	14
5 Risk and opportunity.....	17
6 Health, safety, quality and environment	19
7 Stakeholder and communication	21
Appendix 'A' Detailed cost report.....	22
Appendix 'B' Change control register.....	25
Appendix 'C' Programme information	26
Appendix 'D' Primary risk register.....	27
Appendix 'E' Resource information.....	32

1 Executive Summary

1.1 Key issues

Health, safety, quality and environment

There were no RIDDOR incidents in the Period and the AFR for the project is continuing to reduce and is now 0.10 with 91,000 hours worked in the period.

This current good performance is being enforced by safety surveillance between both the contractors and **ties** safety management team. A benefit of this is an increasing focus on assurance and hand-back.

There were four minor accidents, ten minor incidents and seven near misses reported, significantly less than in previous periods.

Eleven of the 21 accidents, incidents and near misses this period have been investigated, actions agreed and implemented and closed with ten mitigations in progress. There are a further 27 open incidents which are awaiting investigation reports and closure. These are being progressed and there has been a further reduction in historical investigations during the period.

The RIDDOR Investigation report has been revised and re-submitted to **tie** with eight out of 10 recommendations now closed.

As learnt from previous incidents there is a paper to the TPB addressing enhanced Traffic Management and response arrangements throughout the city.

Three audits were rescheduled for Period 6 due to annual leave overlaps between auditors and auditees. A two day audit was completed by **tie** on Carillion during the period focusing on quality procedures, inspection and test plans and reinstatement / hand-back processes. There were issues / deficiencies identified within the systems audited and an action plan is now being discussed and agreed with Carillion to address these. A summary of the findings and corrective actions will be available for the Period 6 report.

Eleven NCRs were raised in the period and corrective actions are being agreed. There are four outstanding NCRs from previous periods being closed out.

Progress overview

Overall progress remains behind the master programme. As outlined in Period 4, the management of the recovery of design delays, mitigation of any potential utility diversion conflicts via Revision 07 of the MUDFA programme and Infraco slow mobilisation and unlocking of Infraco more effectively is being addressed across the Project.

Full integration of the issues and the proposed solutions is being carried out during August with Infraco and a more settled integrated programme, with attendant contingency recovery plan will be set out, agreed and implemented. It is expected to be developed for the Period 6 report and the September Tram Project Board.

Progress – Design

Although Prior Approvals and structures approvals have progressed well, the slippage against v31 has slightly increased in the period. There are only five Prior Approvals remaining to be submitted. Roads and drainage Technical Approvals have required more work to resolve outstanding issues with the submissions and CEC comments but this is now starting to

unlock with concerted actions from **tie**, CEC and SDS and a number of sections have been given conditional approval.

The slippage against v31 for IFC drawing delivery has reduced in the period. Where necessary and appropriate, actions and instructions are being implemented to mitigate any potential delay to the construction critical path. The figures below show the progress against v31 for Phase 1a (prioritised) and the combined Phase 1a and 1b design deliverables.

Phase 1a only	Submitted to CEC		Granted by CEC		% complete
	v31	Actual	v31	Actual	
Prior approvals (51)	47	46	35	37	73%
Technical approvals (60)	53	50	33	31	52%
IFC (submitted to tie) (84)			49	39	46%

Phase 1a and 1b	Submitted to CEC		Granted by CEC		% complete
	v31	Actual	v31	Actual	
Prior approvals (70)	70	65	63	55	79%
Technical approvals (82)	88	72	62	50	61%
IFC (submitted to tie) (115)			78	65	57%

Progress – MUDFA

Utility diversions completed were in line with the planned output for Period 5. Further improvement is still required to avoid material risk of impacting the Infraco construction and this is being progressed assertively at very senior levels with Carillion. Detailed enhanced proposals have now been agreed with Carillion and implementation of these will be well underway by mid Period 6.

Close-out programmes prior to the August city centre embargo (including St Andrews Square and Shandwick place) were completed successfully. The Haymarket enabling was completed to allow commencement of the traffic management and main diversion works on the 18th August. Leith Walk works north of McDonald Road and at Constitution Street are expected to be substantially completed by the end of August.

Work at Gogar depot and in Section 5B and 5C (The Gyle and Edinburgh Park) is slowing telecom diversions and this is being managed with Infraco to mitigate any impact on the main construction programme.

Progress – Infraco (including Tramco)

The slow mobilisation of Infraco is continuing to impact planned progress.

Whilst the demolition of the Caledonian Ale House is completed, preparations are underway to commence civils structures works and site clearance and roads survey coring and testing has progressed, concern remains at the slower than programmed progress with mobilisation. Infraco have continued to significantly increase their direct staff numbers and momentum is building.

However, it will take a number of periods to recover the slow initial progress. The plan to review this is outlined in the programme section below. Short-term targets to bring forward work including:

- Agreed with Infraco to bring forward building warrant approval for demolitions around Murrayfield area (supported by CEC – now starting 1st September c.f. 13th); and
- Reviewed 12 week look-ahead and further potential areas where works can commence by unblocking minor issues.

Infraco Proposals / SDS design alignment programme

A consolidated programme to complete this work, including the more significant elements of roads and OLE design was validated during Period 5. The impact and opportunity of this work will be incorporated into the Period 6 report.

Progress – Other

Pollution Prevention Works at Scotrail Haymarket depot are reported to be on programme for completion in November 2008. This requires continued monitoring and **tie** continue to seek improvements in programme from Network Rail to avoid potential impact to the Infraco programme.

Compensation negotiations for Haymarket car park have been slowed as a result of slow response from Network Rail which has been escalated with Network Rail's Director. It is likely to be Period 7 before this is concluded. First Scotrail have engaged on this issue and this can be resolved subject to resolution of responsibility for the impact of Franchise Extension.

Invasive species and badger works are on programme. Construction works commenced for the relocation of the Murrayfield training pitches in line with programme requirements.

Cost

The AFC for Phase 1a of the project remains unchanged from last period at £512m, including a revised risk allowance of £28.4m (down £2.0m from Period 4). The reduction in risk allowance is required to fund an alternative to Fastlink (a consequence of Tram utilising the existing guided busway) and the necessary A8 sewer utility diversionary works at Gogar. Funding available remains at £545m.

Cumulative expenditure to date (end of P5 08/09) on Phase 1a is £173.6m. COWD year to date, at £43.6m, is £6.5m 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 marginally increased by £0.1m (rounding) and now stands at £150.6m including a revised conservative risk allowance of £7.4m. A detailed 12-week look ahead on the main construction contracts is being undertaken and will inform the forecast each period. However, the current forecast anticipates that, in the case of both Infraco and MUDFA, any current slippage is recovered by the end of the FY08/09. Any movement in the current year outturn will be reflected in this report at the appropriate time when agreement is reached on a revised programme for the main construction contracts (expected to be concluded in September).

The TS share of Phase 1a costs in FY08/09 at 91.7% (500/545) would be between £131m of Base Costs or £138m of the total costs including Risk Allowance. This is being kept under review in the context of a current cap on FY0809 funding from TS of £120m. If necessary, CEC would temporarily "fund" the shortfall of between £11m and £18m until the start of the FY09/10, although **tie**'s view is that at these levels the time lag between certification of work done and payment will ensure that CEC is unlikely to be required to find significant additional cash to meet a shortfall due to the current TS funding cap.

Risk

£1.6m has been transferred from specified MUDFA risks to project contingency. As described above, £0.6m of this was subsequently drawn down for work needed to mitigate the effect of Infraco taking over the guided busway in November and a risk drawdown of £1.4m was

completed to address the A8 Sewer diversion. Any risk associated with the programme recovery works identified will be addressed in Period 6.

Programme

Detailed discussions with Infraco will continue during Period 6 to complete the review of the programme, especially relating to:

- The difference between v26 and v31 of the design and consents programme;
- Management and mitigation of areas where works overlap with MUDFA;
- Slower than expected mobilisation; and
- Integration opportunities in the programme to recover early slippage.

The following table shows the contract programme key dates:

Section	Description	Contract
Section A	Depot completion	25 March 2010
Section B	Test track available	23 April 2010
Section C	All Phase 1a construction complete	17 Jan 2011
Section D	Open for revenue service	16 July 2011

It is confident that this revised programme which maintains the contract end date can be achieved.

Work will continue with Infraco during the next period with the aim of having a revised contract programme agreed by end of September. This may result in early milestones being re-sequenced with a view to catching up on overall programme. Specific initiatives and actions for programme improvements include use of additional track / OLE gangs, re-sequencing of activities to be more efficient and use of technology to improve productivity.

Communications

With the continued mobilisation of Infraco there is a full media plan and engagement process with all our key business and political stakeholders to reflect the increased activity and the ongoing MUDFA utilities work. The Stakeholder and Communications Team continue to prepare for the construction of the infrastructure and this includes a full revamp of the Edinburgh Trams web-site and a review of the Customer Service delivery operations. Both of these are scheduled for implementation in October.

2 Progress

2.1 General / overall

Land and Property

- NR – Aiming to conclude the Bridge Agreements drafting during Period 6; and
- Forth Ports – BSC have been instructed to prepare a change estimate for the Ocean Terminal redesign. The results from costing exercise are to be presented to FP for agreement.

Network Rail

- The scope and programme for the NR immunisation work is being developed with Infraco. Further NR immunisation verification will be provided 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 **tie** with their assurance case, which is expected to be completed by the mid August 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;
 - Thales 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; and
- The pollution prevention project at Haymarket depot remains on programme for completion in November 2008. This still remains a concern to **tie** and is being closely monitored due to the potential to impact on the main Infraco programme and has been escalated with Network Rail's Director.

General

- The Caledonian Ale House is now demolished and preparations are underway to commence the Haymarket viaduct works; and
- Further civil structures mobilisation works have started.

2.2 Critical path

- The critical path has remained largely unchanged during the period;
- 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 1b roads / track;
 - Section 2A track and roads;
 - W18 Murrayfield tramstop retaining wall;
 - 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, currently in draft form, is expected to be signed-off and issued during Period 6. 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 conflicts in the following areas:
 - Newhaven roundabout to Ocean Terminal to allow Lindsay Road retaining wall to proceed;
 - Newhaven Roundabout to Ocean Terminal to allow track and road works to proceed;
 - 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 unhindered;
- 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; and
- The Infraco construction programme is currently under review, although the 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

- During the period both v34 and v35 of the SDS design programme update were submitted to tie via BSC.

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

- Revision 07 of the MUDFA programme will be fully integrated and prioritised to match Infraco construction programme priorities. Progress is behind that planned in Rev 06 and is outlined below;
- The 800mm water main diversion at Gogar started on 5th May 2008 and is now forecast to complete by 5th September 2008 to enable Infraco to complete earthworks. Secondary tie-ins will be complete by 19th September 2008;
- Enabling works completed at Haymarket ahead of utility diversion programme which commenced in this area on 18th August 2008;
- Enabling works are underway at Baltic Street junction;
- Works continue in Leith Walk (Elm Row) north of London Road roundabout; and

- Utility diversion works commenced at Gogar Roundabout on 28th July 2008 for a period of four weeks.

Infraco

As stated in the Executive Summary, mobilisation is slower than expected, compared to the contract programme. Activities started, in progress and completed include:

- Consortium office erected and water-tight;
- Demolition of the Caledonian Ale house completed;
- S19 Haymarket viaduct, S20 Russell Road bridge, S21E Water of Leith bridge, S23 Carricknowe bridge, and S27 Edinburgh Park Station bridge works are all at their early stage of mobilisation and clearance works. Main construction works are expected to start during Period 6 following pre construction activities approval (including WPP and Form C);
- Road surveys commenced during Period 5 with respect to the Infraco proposals for roads and drainage at Princes St and Shandwick Place and is progressing with the identified reports being discussed with stakeholders;
- Commenced mobilisation of satellite office at 163 Leith Walk; and
- Work commenced to prepare the site for the consortium office complex at Edinburgh Park.

Advanced works

- The repositioning of the BAA fence is now complete. Preparation for the removal of remaining 50,000m³ of earthworks is now underway;
- Invasive species 5th visit taking place in September; and
- The Gogar drain has been wired off to discourage any further badger activity in the area.

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 available and to be incorporated into Master Tram Project programme during Period 6;

- Haymarket interchange Project (HISAM);
- Haymarket Station refurbishment;
- RBS tramstop at Gogarburn; and
- 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**.

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	Costs To Go	Total AFC
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance	Actual	Forecast	Forecast
Total Project COWD	7.374	8.688	-1.315	43.640	50.164	-6.523	150.647	150.851	-0.205	173.681	338.336	512.017
Other Funding	0.609	0.717	-0.109	3.035	3.573	-0.539	30.647	30.852	-0.205	14.340	25.174	39.515
Demand on TS	6.765	7.971	-1.206	40.606	46.590	-5.985	120.000	120.000	0.000	159.340	313.162	472.502

- Year to date COWD is £6.5m lower than 'budget' (Period 4 £5.2m) due to:
 - Delayed award of Infraco and Tramco and slow mobilisation - £4.0m (Period 4 £2.9m) – 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;
 - Other timing differences £1.7 (as Period 4) include the completion of land acquisition costs which are now anticipated to be concluded in Period 7 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 marginally increased by £0.1m to £150.6m, as profiled in the table below. This includes what **tie** considers to be a conservative allocation of the risk allowance for the FY08/09 year of £7.4m - down £2.0m from Period 4 following risk transfers to fund:
 - The alternatives to Fastlink (£0.6m, Infraco); and
 - The required A8 sewer diversion (£1.4m, MUDFA);
- The current full year profile is subject to a detailed 12 week look ahead reviewing progress against agreed milestones for Infraco and Tramco. The result of this has informed the current FY 08/09 figures for the following three periods. However, the current profile anticipates that, in the case of both Infraco and MUDFA, any slippage is recovered by the end of the FY08/09. This situation shall remain unchanged until revised programmes are agreed for the main construction contracts. In the case of MUDFA, a revised contract programme is in the final ratification stages, the results of which are expected to be reported against in the Period 7 update of this report. 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	P6	P7-9	P10-13	Total FY08/09
Infrastructure and vehicles	13.3	2.4	31.8	41.5	89.0
Utilities diversions	20.0	2.8	6.5	2.2	31.5
Design	2.8	0.2	0.7	0.2	4.0
Land and compensation	1.0	1.8	0.5	0.4	3.7
Resources and insurance	6.5	1.2	3.3	4.0	15.0
Base costs	43.6	8.5	42.8	48.3	143.3
Risk allowance	0.0	0.0	2.4	5.0	7.4
Total Phase 1a	43.6	8.5	45.2	53.3	150.6
Phase 1b	0.0	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 £7.4m (reduced this period – see third bullet above), which is considered conservative;

- The TS share of Phase 1a costs in FY08/09 at 91.7% (500/545) would be between £131m of Base Costs or £138m of the total costs including Risk Allowance. This is being kept under review in the context of a current cap on FY08/09 funding from TS of £120m. If necessary, CEC would temporarily "fund" the shortfall of between £11m and £18m until the start of the FY09/10, although **tie's** view is that at these levels the time lag between certification of work done and payment will ensure that CEC is unlikely to be required to find significant additional cash to meet a shortfall due to the current TS funding cap;
- The implication of the current TS funding cap will be kept under close review as FY08/09 progresses in the context of periodic reforecast of outturn expenditure and dialogue with TS officials; 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 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 £12.8m. Note that all utility diversions and land compensation costs are 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	89.0	116.9	68.9	305.5
Utilities diversions	18.4	31.5	0.0	0.0	49.9
Design	21.4	4.0	0.7	0.7	26.8
Land and compensation	16.8	3.7	0.0	0.0	20.6
Resources and insurance	42.7	15.0	10.2	12.9	80.8
Base costs	130.0	143.3	127.8	82.5	483.7
Risk Allowance	0.0	7.4	12.8	8.2	28.4
Total Phase 1a	130.0	150.6	140.6	90.7	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
---------------------	---------------	-------------------------	---------------

- 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 alternatives to Fastlink and utility (sewer) diversionary work at Gogar 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	Date	Actual / Forecast
Approval of DFBC by CEC	21 Dec 06A	21 Dec 06A
TRO process commences		
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	12-Sep-08
Edinburgh Park viaduct commences	06-Aug-08	05-Sep-08
A8 underpass commences	08-Aug-08	28-Aug-08
Carricknowe Bridge commences	21-Aug-08	29-Sep-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	Feb 2009
Haymarket viaduct complete	08-Dec-08	14-Apr-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 is being carried out during August with Infraco and a more settled integrated programme, with attendant contingency recovery plan will be set out, agreed and implemented. It is expected to be developed for the Period 6 report and the September Tram Project Board.

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;
- 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 to be included within Revision 07;
- On-street roads / drainage design.
- SGN Medium Pressure main in Section 1b;
- 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

- Newhaven roundabout to Ocean Terminal to allow Lindsay Road retaining wall to proceed;
- Newhaven Roundabout to Ocean Terminal to allow track and road works to proceed;
- 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 unhindered;
- 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.

5 Risk and opportunity

5.1 Summary

MUDFA Risk Review

Following a comprehensive review of the MUDFA Risk Register with the Construction Director, the risk allocation for two risks has been reduced:

- Risk Id 914, "*Statutory Utility Companies unable to meet design approval / acceptance turnaround time to meet programme*", has been reduced by 50% due to the increase in design packages being approved by the utility companies.
- Risk Id 164, "*Unknown or abandoned assets or unforeseen / contaminated ground conditions affect scope of MUDFA work*", has been reduced by 25% due to the amount of work completed by the MUDFA team. This risk will continue to reduce as the works progress.

Therefore, the total transferred to contingency is £1.6m.

A8 Sewer diversion

One risk on the MUDFA risk register has been realised and is being funded from the risk allocation. This is Risk Id 342 "*1,500mm sewer requires to be diverted*". Finalised costs have been received and a transfer of £1.4m completed from the risk allocation to the MUDFA budget.

Guided Busway

£0.6m of the £1.6m transferred to contingency has been drawn down to fund additional traffic management requirements which will arise when Infracore assume control of the Guided Busway in November 2008.

P6 Risk Review

During Period 6 a systematic review of the project risk register and treatment plans will take place with the Risk Manager and the Project Directors. The output of this review will feed into the Period 6 report.

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 6:** *SDS have not provided the required loadings for the Electrical Network.*
 - The consequence of this risk is that, without the required information, Siemens would need to estimate the required loadings and this may result in insufficient power being available. Siemens have now taken the lead in trying to resolve this matter. **tie** continue to monitor progress on this;
- **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 meet 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 Infracos slow mobilisation. Mitigation includes the programme interrogation review currently underway and concluding in September.

Risk reviews

- There were no risks closed in the period;
- As stated in the report last period, work is underway to augment the Infraco risk profile, with meetings with all the Infraco project managers taking place during each period. This continued during Period 5; and
- The QRA has been assessed as adequately reflecting the negotiated Infraco contract suite and other risks during the construction phase of the project.

5.3 Risk action plan for next period

All risk mitigations are identified in the Primary Risk Register.

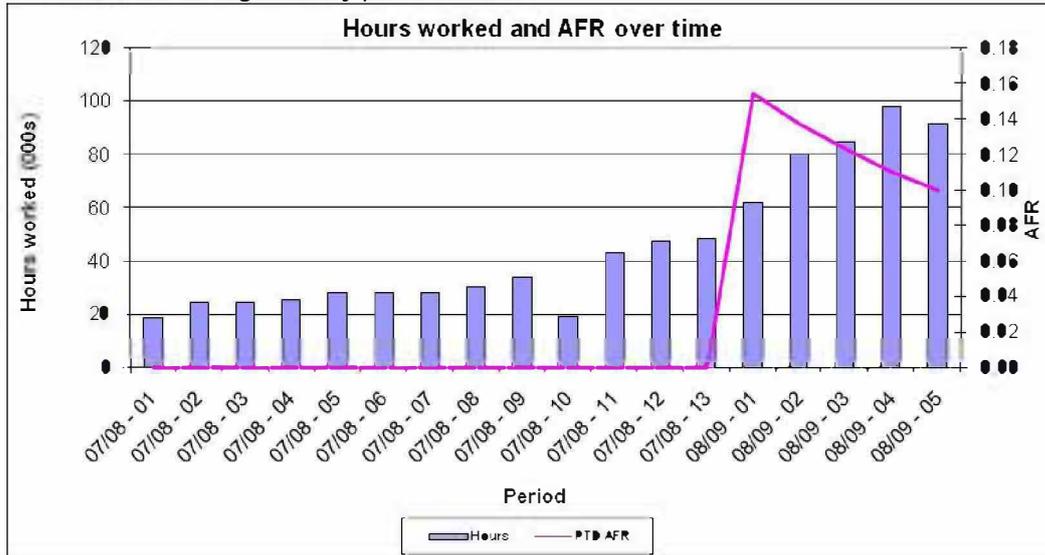
5.4 Review project opportunity register

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 detail in Period 7.

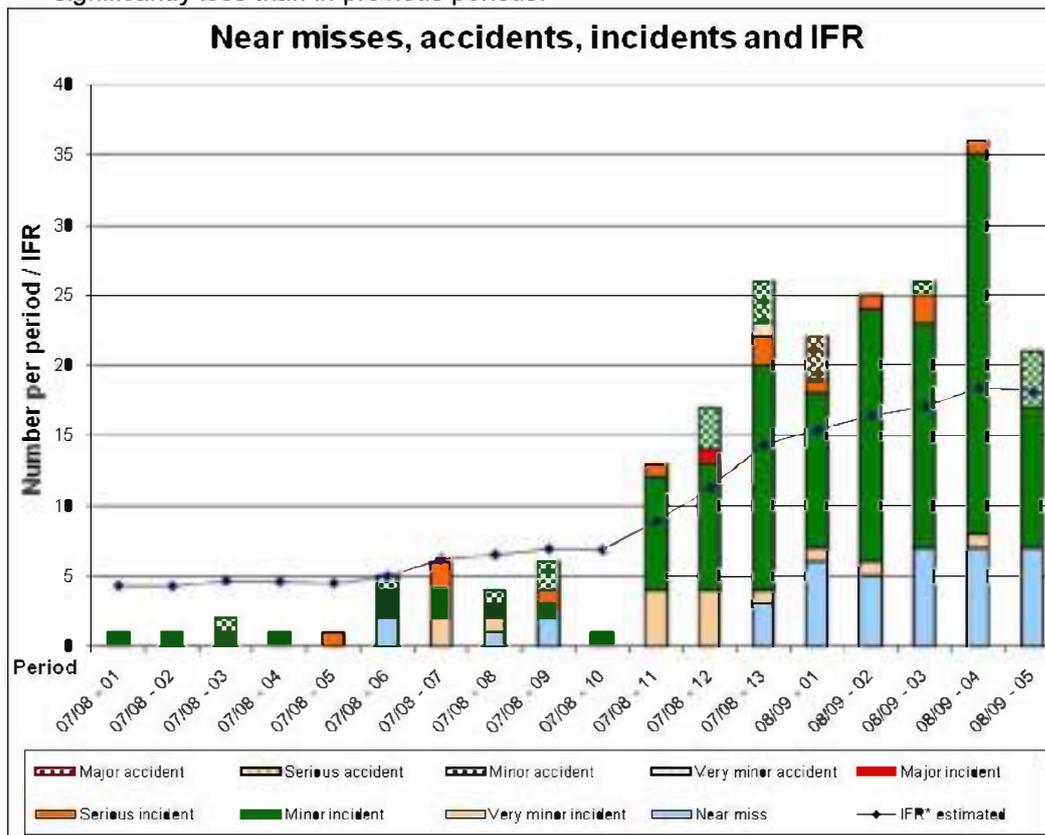
6 Health, safety, quality and environment

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 0.10 (91,000 hours in the period) which is a strong industry performance.



- There were four minor accidents, ten minor incidents and seven near misses reported, significantly less than in previous periods.



- Eleven of the 21 accidents, incidents and near misses this period have been investigated, actions agreed and implemented and closed with ten mitigations in progress;
- There are a further 27 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; and
- The RIDDOR investigation report has been revised and re-submitted to **tie** with eight out of 10 recommendations now closed.

6.2 Environment

- There were 0 environmental incidents reported in the period.
- An area of contaminated land has been identified in the area of the A8 underpass. This will be reported on in Period 6.

6.3 Quality

- Three audits were re-scheduled for Period 6 due to annual leave overlaps between auditors and auditees;
- A two day audit was completed by **tie** on Carillion during the period focusing on quality procedures, inspection and test plans and reinstatement / hand-back processes. There were issues / deficiencies identified within the systems audited and an action plan is now being discussed and agreed with Carillion to address these. A summary of the findings and corrective actions will be available for the Period 6 report;
- Eleven NCRs were raised in the period. Ten against the MUDFA contractor and one against Infracore. Corrective actions are being agreed; and
- There are four outstanding NCRs from previous periods:
 - NCR 29 is being progressed by Carillion with BT. A derogation has been requested with regards to the concrete test failure of a chamber;
 - NCR036 is being progressed by Infracore. BSC - within a fenced Green Zone - 1. No approved WPP signed off by the BSC CRE and on WPP site. 2. There was no evidence of preplanning - i.e.: No Rimini plan or COSS brief available on site 3. The COSS had not undertaken a briefing of the staff on site;
 - NCR037 is being progressed by Carillion. Brick built sewer shaft - **tie** require evidence that the construction conforms to Scottish Water specification; and
 - NCR038 is being progressed by Infracore. Commenced work without a permit- Baird St.

7 Stakeholder and communication

7.1 Stakeholder / communication strategy / plan

The Communications and Stakeholder strategy will be reviewed by September so it is 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

As part of the media strategy, news releases were distributed for the Shandwick Place reinstatement and Haymarket Phase 1 utility diversion works. Other media enquiries included Leith Walk traffic management, the impact of tram works on cyclists and the World War Two flight simulator.

We have fully informed all key stakeholders of any upcoming works through the July Tram Project fact sheet, production and distribution of Tram Updates 7 and 8 (Haymarket Phase 1 and Leith Walk) plus ongoing construction updates on the Edinburgh Trams website. The team has been working closely with stakeholders regarding the August embargo to ensure all work has been reinstated in the exempt areas and that this will be maintained throughout the embargo period.

The profile of the project was also raised at the Fringe Sunday event, where Edinburgh Trams hosted a stand in the CEC marquee. Work is also ongoing on the redevelopment of the tram website.

Finally, as part of the project's commitment to Business Support, over £1.5 million has been paid out to local businesses.

7.3 Communication and stakeholder action plan for next period

Media activity next period will be focused on Infracore work at the A8 underpass, MUDFA work at the Mound, Princes Street and Lothian Road, plus the closure of the Small Business Support Scheme at the end of August. Notifications and stakeholder engagement will also take place to support these works and we will be communicating the recommencement of MUDFA works in the embargo zone.

The team will be working with CEC on the preparation of the Traffic Regulation Order Design presentations to the general public. These are due to be held in September / October and will involve inviting businesses and residents throughout the whole route (approximately 60,000) to nine events. The presentations will be divided into four areas: Newhaven, Leith Walk, the city centre and the West End and beyond. This process is being led by CEC with **tie** facilitating the process. An evaluation report based on the design consultation process will also be finalised.

As mentioned above, the Small Business Support Scheme will come to a close on 31 August 2008. A decision will then need to be made as to how best deploy the remaining resources available to the business community.

Working with the CEC team we will progress the Tram School's Programme, with the first planning meeting taking place the first week in September. This programme is being led by CEC and **tie**.

Appendix 'A' Detailed cost report

FY 08/09: Demand on TS 120.000

1: HEADLINE FINANCIAL COMMENTARY

PERIOD RESULTS:
Period is for Phase 1a only

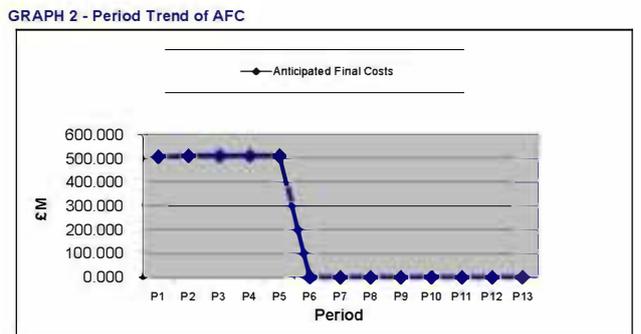
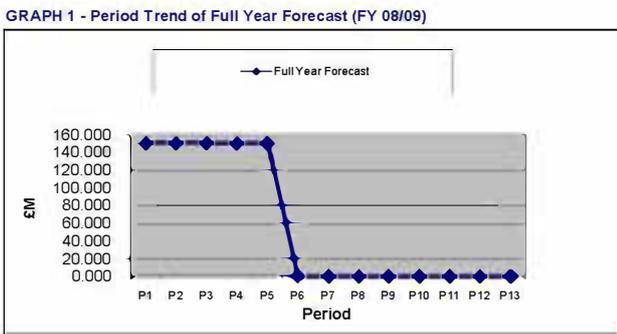
YTD RESULTS:
YTD is for Phase 1a only

FULL YEAR FORECAST:
FY 0809 is for Phase 1a only

AFC:
AFC is for Phase 1a only

2: SUMMARY

	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	7.374	8.688	-1.315	43.640	50.164	-6.523	150.647	150.851	-0.205	173.681	338.336	512.017
Other Funding	0.609	0.717	-0.109	3.035	3.573	-0.539	30.647	30.852	-0.205	14.340	25.174	39.515
Demand on TS	6.765	7.971	-1.206	40.606	46.590	-5.985	120.000	120.000	0.000	159.340	313.162	472.502



3: RISK AND OPPORTUNITIES TO:

FULL YEAR FORECAST:

AFC:

4: ACCRUALS COMMENTARY

5: TOTAL PROJECT ELEMENT SPEND BREAKDOWN (TS & 3rd Party Costs)

PLANNED/EMERGING/FORECAST
Allocated in accordance with standard WBS. Values relevant to business case or other agreed baseline date to be known as original estimate

Relevant Baseline date: FBC 20/12/2007

	Estimated Cost			Actual Cost/Forecast			Variance
	Original Estimate	Escalated Original Estimate	Escalated Latest Estimate	Cost Of Work Done (COWD)	Forecast to Completion	Anticipated Final Costs (AFC)	
General Overall	28.233	28.233	28.847	22.307	6.541	28.847	0.000
Procurement Consultant	68.126	68.126	69.636	42.295	27.342	69.636	0.000
Design	23.683	23.683	26.828	24.221	2.606	26.828	0.000
Financial Issues/Funding/Procurement Strategy	2.258	2.258	2.627	2.122	0.505	2.627	0.000
Parliamentary Process/Approvals	0.329	0.329	0.319	0.319	0.000	0.319	0.000
Procurement Construction Works	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Construction Works	273.102	273.102	297.244	78.926	218.318	297.244	0.000
Testing & Commissioning	1.984	1.984	0.000	0.000	0.000	0.000	0.000
Handing Over & Service Operations	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NOP/Rail Projects Interface (Promoters View)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Interfacing Developments	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TRAMS, Vehicles (Edinburgh TRAMS Use Only)	51.370	51.370	58.153	3.491	54.662	58.153	0.000
Risk	48.974	48.974	28.363	0.000	28.363	28.363	0.000
Opportunity (Negative Value)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OB/Contingency	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	498.060	498.060	512.017	173.681	338.336	512.017	0.000

6: Current Year 08/09 - Baseline Budget

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Total
1 Total Project COWD - Budget	6.457	13.085	14.265	7.667	8.688	8.763	10.395	15.222	23.863	6.198	13.563	12.195	10.490	150.851
2 Other Funding - Budget	-0.036	1.080	1.178	0.633	0.717	0.724	0.858	1.257	1.970	0.512	1.120	10.348	10.490	30.852
3 Demand on TS - Budget	6.493	12.005	13.088	7.034	7.971	8.039	9.537	13.965	21.893	5.686	12.443	1.847	0.000	120.000

7: Current Year 08/09 - Actuals (Updated 4 weekly)

4 Total Project COWD + Revised Forecast	6.457	11.287	10.360	8.162	7.374	8.529	8.244	11.252	25.694	11.832	13.147	13.400	14.910	150.647
7 Other Funding + Revised Forecast	-0.036	0.932	0.855	0.674	0.609	0.704	0.681	0.929	2.122	0.977	1.086	6.205	14.910	30.647
10 Total Demand on TS	6.493	10.355	9.505	7.488	6.765	7.825	7.563	10.323	23.572	10.855	12.062	7.195	-0.000	120.000

8: Variance tracker

12 Variance Line 1 to Line 4 - Project Actual vs Budget	0.000	-1.798	-3.905	0.495	-1.315	-0.234	-2.152	-3.970	1.831	5.634	-0.415	1.205	4.420	-0.205
13 Variance Line 2 to Line 7 - Oth Funding Actual vs Budget	0.000	-0.148	-0.322	0.041	-0.109	-0.019	-0.178	-0.328	0.151	0.465	-0.034	-4.143	4.420	-0.205
14 Variance Line 3 to Line 10 - Demand on TS vs Budget	0.000	-1.650	-3.583	0.454	-1.206	-0.214	-1.974	-3.642	1.679	5.169	-0.381	5.348	-0.000	-0.000

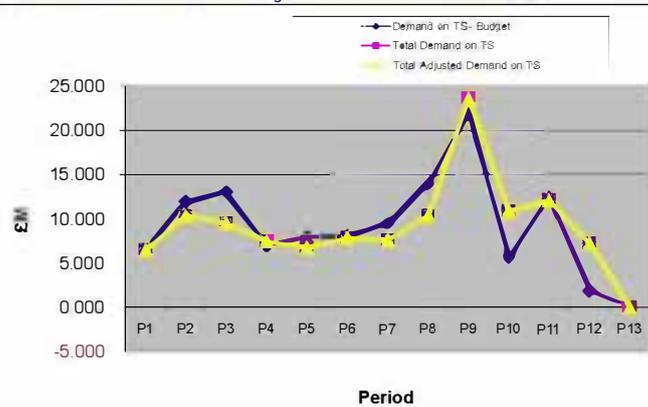
9: Next Year 09/10 - Forecast (Updated 4 weekly)

	Q1	Q2	Q3	Q4	Total	Financial Commentary - FY 09/10 Onwards
16 Total Project COWD	27.992	26.150	37.307	49.138	140.586	All costs are for Phase 1a only
19 Other Funding	-19.227	2.159	3.080	4.057	-9.931	
22 Total Demand on TS	47.219	23.991	34.226	45.080	150.517	

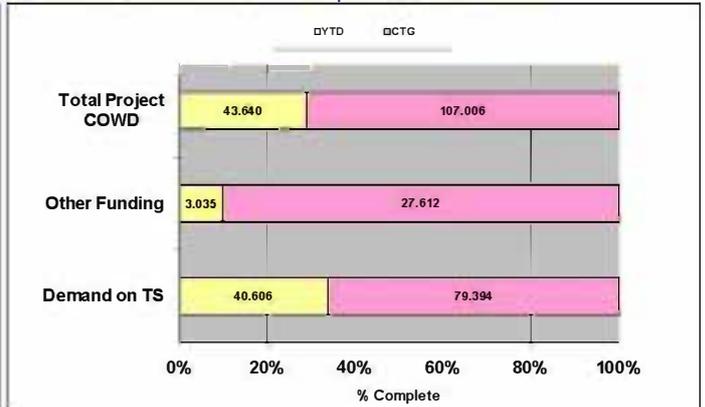
10: All Years (Escalated) (Updated 4 weekly)

	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FUTURE	TOTAL
24 Total Project COWD	0.000	3.093	10.664	30.431	85.852	150.647	140.586	76.588	14.156	0.000	0.000			512.017
27 Other Funding	0.000	0.000	1.000	0.019	10.287	30.647	-9.931	6.324	1.169	0.000	0.000			39.515
30 Total Demand on TS	0.000	3.093	9.664	30.412	75.565	120.000	150.517	70.264	12.988	0.000	0.000	0.000	0.000	472.502

GRAPH 3 - Demand on TS: Actual/Budget Run Rate - Current Year FY 08/09



GRAPH 4 - Year To Date/ Costs To Go - % Complete - Current Year FY 08/09



11: Other Funding

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Total
Budget (Current Year 08/09)														
CEC	-0.036	1.080	1.178	0.633	0.717	0.724	0.858	1.257	1.970	0.512	1.120	10.348	10.490	30.852
Other Funding Stream														0.000
Other Funding Stream														0.000
Other Funding Stream														0.000
Other Funding Stream														0.000
Total Budget Other Funding	-0.036	1.080	1.178	0.633	0.717	0.724	0.858	1.257	1.970	0.512	1.120	10.348	10.490	30.852
Actual (Current Year 08/09)														
CEC	-0.036	0.932	0.855	0.674	0.609	0.704	0.681	0.929	2.122	0.977	1.086	6.205	14.910	30.647
Other Funding Stream														0.000
Other Funding Stream														0.000
Other Funding Stream														0.000
Other Funding Stream														0.000
Total Actual Other Funding	-0.036	0.932	0.855	0.674	0.609	0.704	0.681	0.929	2.122	0.977	1.086	6.205	14.910	30.647

12: Promoter Full Year Forecast Run Rate

Period Trend of Full Year Forecast (Current Year 08/09)	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
Full Year Forecast	150.851	150.851	150.984	150.537	150.647								

13: Promoter AFC Run Rate

Period Trend of AFC	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
Anticipated Final Cost	508.017	512.017	512.017	512.017	512.017								

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

Period 5 - 2008/09 Primary Risk Register

ARM Risk ID	Risk Description			Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	Cause	Event	Effect								
916	CEC do not achieve capability to deliver	CEC are unable to honour their funding commitment	Potential showstopper to project if contribution not reached; Line 1B may depend on incremental funding from CEC	S McGarrity		Project	CEC has formed a multi discipline Tram Contributions Group to monitor identified sources of £45m contribution including critically developers contributions. tie are invited to that group. (see add info)	Complete	Complete	28-Sep-07	CEC
							CEC to deliver necessary contributions for 1a	Complete	Complete	28-Aug-07	CEC
							Tram Project Board to monitor progress towards gaining contributions	Ongoing	Ongoing	Ongoing	D Mackay
139	Utilities diversion outline specification only from plans	Uncertainty of Utilities location and consequently required diversion work/ unforeseen utility services within LoD	Increase in MUDFA costs or delays as a result of carrying out more diversions than estimated	G Barclay	High		Carry out GPR Adien survey	Complete	Complete	31-Oct-07	J Casserly
							Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	Ongoing	A Hill
164	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; asbestos found in excavation for utilities diversion; unknown cellars and basements intrude into works area; other physical obstructions; other contaminated land	Unknown or abandoned assets or unforeseen/contaminated ground conditions affect scope of MUDFA work.	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	I Clark	High		Carry out GPR Adien survey	Complete	Complete	31-Oct-07	J Casserly
							Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	Ongoing	A Hill

ARM Risk ID	Risk Description			Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	Cause	Event	Effect								
6	SDS non performance and lack of interface between SDS and Siemens	SDS have not provided loadings for Electrical Network	Delay to procurement of supplies. Siemens need to determine loadings based on information at hand and if this is incorrect then potentially insufficient power available.	J Monk	High - 25 00		tie to push SDS to ensure they provide information to SP		On Programme	01-Sep-08	J Monk
31	Mudfa delay in diversion works due to lack of BT resources	Bankhead Drive Retaining Wall: BT and Easynet diversion work not completed till end Jan 09 - work was due to start mid-June 08	Delay and disruption to programme.	T Cotter	High - 25 00		Site visit with Infraco PMs and Mudfa to assess interface issues between services and structure		On Programme	01-Aug-08	T Cotter
30	Mudfa delay in diversion works due to lack of BT resources	South Gyle Access Bridge: BT diversion work not completed till end Sept 08 - work was due to start mid-June 08	Delay and disruption to programme.	T Cotter	High - 25 00		Site visit with Infraco PMs and Mudfa to assess interface issues between services and structure		On Programme	01-Aug-08	T Cotter
173	Uncertainty over extent of contaminated land on route	Tramway runs through area of previously unidentified contamination and material requires to be removed and replaced (dig and dump).	Increase in costs to remove material to special and other tip.	B Bell	High - 25 00		Issue contamination and gi report to Infraco bidders	Complete	Complete	2-Mar-07	B Dawson
							tie to obtain ground investigation and contamination reports from SDS	Complete	Complete	30-Mar-07	A McGregor

ARM Risk ID	Risk Description			Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	Cause	Event	Effect								
44	SDS contractor does not deliver the required prior approval consents in line with SDS v31	Late prior approval consents	Delay to programme with additional resource costs and delay to infraco. Impact upon risk balance.	D Sharp	High - 23.00		Evaluation of prior approval programme	On Programme	On Programme	31-Oct-08	D Sharp
							Hold fortnightly Roads Design Group	On Programme	On Programme	Ongoing	T Glazebrook
							Twice-weekly meetings of Approvals Task Force	On Programme	On Programme	31-Oct-08	D Sharp
							Informal consultation prior to statutory consultation	On Programme	On Programme	31-Jul-08	T Glazebrook
							Integrate CEC into tie organisation/accommodation (office move)	Complete	Complete	4-Jun-07	T Glazebrook
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	W Biggins	High - 22.00		tie needs to identify critical possessions tied into Infraco's programme and then highlight them to NR	On Programme	01-Sep-08	W Biggins	
928	Major single safety incident (including a dangerous occurrence) during construction	Safety incident during construction	Delay (potentially critical) due to HSE investigation and rework. PR risk to tie and stakeholders.	F McFadden	High - 21.00		All Site Staff to get CSCS or equivalent	On Programme	On Programme	Ongoing	C McLauchlan
							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	T Condie
							Safety Induction to be carried out for all site staff	On Programme	On Programme	31-Dec-10	T Condie
							Site Supervisors to be appointed by tie	Complete	Complete	28-Feb-07	S Clark

ARM Risk ID	Risk Description			Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	Cause	Event	Effect								
1033		Failure of Infraco to mobilise in time to commence work in line with programme.	Delay to programme. Cost overruns. Negative publicity. Criticism from stakeholders	S Bell	High - 19.00		Continued focus at Infraco progress meetings as well as programme workshops to mitigate the impacts of any delay	N/A	On Programme	1-Oct-08	S Bell
							Implementation of Advanced Works programme in order to mitigate potential future issues during construction	N/A	On Programme	1-Aug-08	R Bell
							Infraco given instructions to proceed at risk	N/A	On Programme	1-Aug-08	R Bell
							Pressure from Approvals Task Force to ensure Technical and Prior Approvals are delivered	N/A	On Programme	1-Oct-08	D Sharp

Appendix 'E' Resource information

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