



## 4 Week Period Reporting Pack 08/09

**Project Title:**

Edinburgh Tram Project

**Reporting Period:**

Period 01 2008/09

**Transport Scotland Project Manager:**

John Ramsay

**Progress Meeting Date:**

Report authorised by: **Steven Bell**

Signature: 

Date: 2/5/08

For and on behalf of **tie Limited**

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# 1 Executive Summary

## 1.1 Key issues of the moment

### Progress – Infraco negotiations (as at 1<sup>st</sup> May 2008)

Negotiations with the Infraco have proven to be protracted and complex with the main difficulties surrounding the effective transfer of risk in relation to design and systems integration to the private sector in a manner which is consistent with the Business Case and which represents value for money to the public sector.

Last period (P13 0708 report) we reported that commercial negotiations were complete to all intents and purposes, we had issued notification of intent to award letters and that work was continuing by BBS, CAF and PB to complete the extensive documentation and perform quality assurance checks with a view to contract signature in mid April. Since then two things have happened:

1. A decision was taken to refer the updated cost estimate (£508m) and programmed opening date (July 2011) back to the City of Edinburgh Council meeting on 1<sup>st</sup> May with contract signature following on 2<sup>nd</sup> May. The delay from mid April to 2<sup>nd</sup> May would have no impact on the construction programme and activities would continue under the Mobilisation and Advance Works Agreement with Infraco.
2. On 30th April the Infraco bidder gave notice that following due diligence there are circumstances giving rise to a requirement to increase the previously agreed price.

At the time of writing **tie** is engaging with the Infraco bidder to determine the nature of their requirement and to rebuff any price increase. **tie**'s is to address this issue with a view to signing the Infraco contract suite during the week beginning 5<sup>th</sup> May but without material impact on the cost estimate or programme.

The payment of initial milestones under the Infraco and Tramco contracts totalling £47.2m (including £24.2m in respect of advance material purchases and other long lead items) would follow soon after Contract Award.

The remainder of this report was written anticipating contract signature on or around 2<sup>nd</sup> May and should be read assuming that item 2 above does not have any material impact on the validity of the facts and commentary made. All stakeholders will be kept full informed of progress and events as they emerge.

### Progress – Design

To date, 16 Prior Approvals have been issued to CEC and 11 have been approved (v31; 21 issued and 11 approved). Twelve Technical Approvals have been issued to CEC. Three existing structures have been approved and although no new structures have completed the approval process, full approval is imminent for 6 new structures (v31; 16 issued and 4 approved). A new taskforce composed of senior representatives from **tie**, CEC and SDS has been set up to ensure the approvals are granted promptly.

### Progress – MUDFA

Progress has reduced from that achieved in Period 13 with 70% of the planned diversions completed in the period. A total of 77% of the planned diversions have been achieved in total to date. The overall effect on the critical path remains at two weeks and implementation of the revised recovery programme actions is underway. Rescheduling of key areas has been carried out to address resource peak demand and to prioritise critical interface areas with Infraco.

Excavation works carried out under MUDFA unearthed skeletal remains of three bodies thought to be about 300 – 400 years old in Constitution Street. It is the opinion of the CEC archaeologist that more finds are likely. A report compiled by the archaeologist is expected mid May to allow a decision to be made on the way forward. MUDFA progress will not be impacted by this but action will be necessary to prevent Infraco works being impacted.

The following activities were undertaken:

- MUDFA works at the Lothian Road / Shandwick Place junction were complete by Friday 25 April 2008 to allow the city centre phase II traffic management arrangements to be introduced;
- Preparation for the installation of the 800mm main at the depot will commence on 28 April in accordance with the latest programme. This is a critical activity to ensure commencement of Infraco work at the beginning of June;
- It has been confirmed that the 1500mm sewer underneath the A8 underpass will need to be diverted. IFA drawings for this are expected on 29 April; and
- BAA have commenced works on relocating their fence line. These works are on programme and completion is expected by mid May.

#### Progress – Infraco advanced works

- Consideration is being given to netting along boundary of LOD and Gogar drain to discourage new badger sett construction;
- Invasive species treatment is ongoing;
- Contract awarded to erect hoarding at RBS; and
- Archaeological works have commenced on site 2B.

#### Progress – Infraco mobilisation activities

- Tree felling has been completed in sufficient areas to allow summer works to progress;
- The application for a Building Warrant to demolish the Caledonian Ale House has been submitted and the power will be disconnected on 11<sup>th</sup> May; and
- To ensure a mutual understanding exists on constructability and interpretation of design, **tie** now chairs and facilitates an interface meeting between BBS and SDS until such times as the parties are in a contractual relationship.

#### Progress – Other

- Land and property – All licence holders have now vacated properties. The land that Infraco require for site clearance and demolition will be available in line with the agreed construction programme;
- The NR Framework Agreement has been executed. The outstanding agreements still to be resolved with Network Rail are Bridge Agreements and Operating Agreement, which will be pursued in Q2 2008;
- Agreement has been reached on design principles in the Forth Ports area and the agreement will be executed by the end of May;
- SRU – All major issues have been resolved and the agreement will be executed by the end of May;
- Scottish Power and Telewest agreements were signed; and
- The OCIP cover is being extended to July 2011.

#### Cost

- The AFC for Phase 1a of the project remains at **£508m**, including a risk allowance of **£32.3m**. Funding available remains at **£545m**. There are no significant changes pending. Cumulative expenditure to date (end of P1 0809) on Phase 1a is **£136.5m**;

- The “Budget” for FY0809 has been baselined at **£150.9m** including a risk allowance of **£10.0m** and is predicated on commencement under Infraco and Tramco in the first week of May 2008. Variance reporting in future reports in FY0809 will be against this baseline;
- In the context of a current cap on FY0809 funding from TS of £120m, CEC would need to temporarily “fund” the shortfall of between £9m and £18m until the start of the FY0910, although it is unlikely that CEC will need to find cash to meet a shortfall due to the lag between work being done and payment under the contracts. The implication of the current TS funding cap for FY 0809 will be kept under close review; and
- A project has been initiated to deliver an updated business plan and financing plan for Phase 1b for presentation to CEC in the autumn of 2008.

### Risk

There were no significant risks added or closed during the period. The QRA has been assessed as adequately reflecting the negotiated Infraco contract suite and other risks during the construction phase of the project.

One risk on the MUDFA risk register is expected to be realised and will require a transfer from the Risk Allowance to the base cost estimate when the quantification is finalised: As stated above, the MUDFA contract team are required to divert a 1,500mm sewer in the Gogar area and will, in the coming period, calculate the cost of this additional work. Any drawdown on the Risk Allowance will be highlighted in the Period 2 report.

### Health, safety, quality and environment

The AFR for the project is now 0.15.

There was one major injury accident, reportable under RIDDOR to the Health and Safety Executive, in the period. An interim report has been received from the MUDFA contractor. Operatives were removing material by hand in an excavation to an area where the excavator could remove it. During these works part of the excavation became dislodged and struck one of the operatives on his leg, resulting in a fractured ankle. All excavation works have been reviewed and the final investigation report with recommendations is awaited.

A near miss was reported regarding the traffic management and pedestrian arrangements on Constitution St on 25 April. An independent **tie** director will chair a panel that will formally investigate this issue and lessons learnt.

There were two minor office-based accidents. Twelve other incidents and three near misses were reported in the period. Two environmental incidents were reported in the period. Both were in relation to the discovery of human remains / graves in Constitution Street outside South Leith Parish Church (impact on progress is outlined above).

Analysis of the emerging trends from MUDFA cable strikes is showing that 80% of the strikes are for services <600mm deep, 56% are due to excavator buckets and 47% of the services affected are street lighting or LV electricity cables.

## 2 Progress

### 2.1 *General / overall*

- Land and property – All licence holders have now vacated properties. The land that Infraco require for site clearance and demolition will be available in line with the agreed construction programme;
- The NR Framework Agreement has been executed. The outstanding agreements still to be resolved with Network Rail are Bridge Agreements and Operating Agreement, which will be pursued in Q2 2008;
- Agreement has been reached on design principles in the Forth Ports area and the agreement will be executed by the end of May;
- SRU – All major issues have been resolved and the agreement will be executed by the end of May;
- Scottish Power and Telewest agreements were signed; and
- The OCIP cover is being extended to July 2011.

### 2.2 *Procurement consultant*

N/A

### 2.3 *Design*

The SDS v31 design programme has been issued and incorporated into the final contract. An agreed mitigation matrix in place to reduce any design risks against Infraco construction. To date, 16 Prior Approvals have been issued to CEC and 11 have been approved (v31; 21 issued and 11 approved). Twelve Technical Approvals have been issued to CEC and none have been approved (v31; 16 issued and 4 approved). A new taskforce composed of senior representatives from tie, CEC and SDS has been set up to ensure the approvals are granted promptly.

### 2.4 *Financial / funding / procurement strategy*

The procurement strategy is complete and now being implemented. Finance and funding is covered in the cost section.

### 2.5 *Parliamentary process / approvals*

Parliamentary process's complete. Approvals monitoring continues via a direct sub-set of SDS Design programme.

### 2.6 *Procurement construction works*

Infraco contract suite is expected to be signed early in Period 2.

### 2.7 *Construction works*

- Archaeology works – Site 1 is complete and site 2 is underway at Gogar;
- SGN have confirmed that the completion of their works and the resultant isolation of the existing SGN gas main at the depot will be complete by 2<sup>nd</sup> May;
- The scope and programme of the Network Rail immunisation continues to be developed with Infraco. The initial electrical modelling has been completed and has established the theoretical baseline for the zone of impact between the tram and mainline networks and also a preferred solution for the immunisation works;
- Infraco will be developing the full assurance case for NR acceptance;
- Relocation of existing lineside equipment (lift and shift) is expected to be complete by the end of April 2008; and

- The relocation of the Haymarket First Scotrail depot diesel fuel tanks, part of NR's pollution prevention (PP) scheme, is expected to be further delayed until late November 2008. This is being escalated with Ron McAuley (NR Director Scotland) on 6 May.

#### MUDFA On-street

- Diversion works in the following area remain ongoing:
  - Section 1B from McDonald Road to Balfour Street;
  - Section 1C from The Mound to St Andrew Street;
  - Section 1C (RAT-1C-1) St Andrew Square BT Diversions;
  - Section 1D from South Charlotte Street to Castle Street West; and
  - Section 1D from Lothian Road to Shandwick Place West End.
- Diversion works in Section 1B from Balfour Street to Foot of the Walk commenced in Period 1;
- Section 1a Newhaven Rd to Foot of the Walk – Permission has been sought and agreed in principle for MUDFA to work through the August embargo and the first three weeks of the Oct-Jan embargo to recover the programme for this section;
- Foot of the Walk up to McDonald Road is being considered for some re-sequencing of allocated resources to ensure that this section remains ahead of the requirement for Infracore start; and
- Section 1D Princes Street West to Haymarket has been identified as a possible Traffic Management issue. A large BT chamber has to be constructed in the middle lane of Haymarket Terrace in the same timeframe as Infracore will be constructing the Haymarket Station Viaduct.

#### MUDFA Off-street

- Diversion works in Section 5B from Edinburgh Park Tram Stop to Broomhouse Road remain ongoing;
- Diversion works in Section 1A2 Constitution Street commenced on 31<sup>st</sup> March;
- Diversion works for 800mm SW main at Gogar depot are programmed to commence on 28<sup>th</sup> April 2008; and
- Section 5B – There is a major BT chamber to be constructed in the section between South Gyle Access and Edinburgh Park Station which will have to be programmed in detail with Infracore construction.

#### Advanced work

- Depot – Phase 3 earthworks programme will commence following decommissioning of SGN gas main by 2 May;
- Repositioning of the BAA fence expected to complete mid-May which will free up 50,000m<sup>3</sup> of earthworks for excavation;
- 800mm water main diversion is programmed from end of April to end of 3<sup>rd</sup> week in June 2008. The earthworks in way of existing water main (circa 30,000 m<sup>3</sup>) will be excavated by mid-July 2008; and
- Integration of St. Andrew Square enabling, CEC streetscape works and MUDFA programmes has been aligned at Revision 06 of the MUDFA programme.

### **2.8 Testing and commissioning**

This phase has not yet commenced

## **2.9 Hand over and service operations**

This phase has not yet commenced

## **2.10 Network output programme interface (with Transport Scotland)**

This phase has not yet commenced

## **2.11 Interface with other projects**

- SGN decommissioning of gas main by 2 May – Integrated with depot earthworks;
- BAA re-positioning of airport fence line – Integrated with depot earthworks;
- CEC St.Andrew Square Streetscape works – Integrated with MUDFA and enabling works;
- Invasive Species Eradication programme – Integrated with Infraco;
- Airdrie to Bathgate – Integrated with Infraco for disruptive possessions;
- NR lift and shift – Due to complete 5 May;
- NR PP works – Interfaces with Infraco works at Murrayfield and particularly S21A Roseburn St viaduct; and
- Murrayfield pitches relocation.



### 3 Headline cost report

#### 3.1 Current financial year

	FY 08/09			FY 08/09			FY 08/09			COWD To Date	Costs To Go Forecast	Total AFC Forecast
	COWD Period			COWD Year To Date			COWD Full Year Forecast					
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance			
Total Project COWD	6.457	6.457	0.000	6.457	6.457	0.000	150.851	150.851	0.000	136.498	371.519	508.017
Other Funding	-0.036	-0.036	0.000	-0.036	-0.036	0.000	30.852	30.852	0.000	11.270	30.676	41.946
Demand on TS	6.493	6.493	0.000	6.493	6.493	0.000	120.000	120.000	0.000	125.228	340.843	466.071

The budget for FY0809 has been re-profiled at the end of Period 1 to reflect anticipated commencement under the Infraco and Tramco contracts in the first week of May. There is therefore no variance between actual COWD in period 1 and the "Budget" for the period. The tables below reflect the Phase 1a "Budget" for the year 0809 of £150.9m and profiling thereof which will be the basis against which actual COWD will be reported for the remainder of FY0809.

The profiling is consistent with the contractual programme and milestone payment schedules agreed with the Infraco and Tramco contractors. Payment applications submitted by CEC to TS will be adjusted to reflect the cumulative cash requirements of this updated profile.

#### Budget and profile for FY0809

£m	P1-3	P4-6	P7-9	P10-13	Total FY0809
Infrastructure and vehicles	12.5	10.5	36.0	30.8	89.8
Utilities diversions	13.8	8.6	5.1	2.7	30.2
Design	0.9	0.8	0.6	0.1	2.4
Land and compensation	2.7	0.2	0.2	0.6	3.7
Resources and insurance	4.0	3.5	3.1	4.2	14.8
<b>Base costs</b>	<b>33.9</b>	<b>23.6</b>	<b>45.0</b>	<b>38.4</b>	<b>140.9</b>
Risk allowance	-	1.6	4.5	3.9	10.0
<b>Total Phase 1a</b>	<b>33.9</b>	<b>25.2</b>	<b>49.5</b>	<b>42.3</b>	<b>150.9</b>
Phase 1b	-	0.1	0.8	2.1	3.0

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 profile above will not now materially change except to the extent changes are initiated by tie, stakeholders or the contractors or there are changes to the Infraco works by way of significant variations.

The proportion of the overall risk allowance allocated to the year, proportionate to the level of forecast base costs, is £10m, which is considered conservative.

The TS share of Phase 1a costs in FY0809 at 91.7% (500/545) would be between £129m 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. The fall back position is that CEC would temporarily "fund" the shortfall of between £9m and £18m until the start of the FY0910, although our 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 FY0809 progresses in the context of periodic reforecast of outturn expenditure and dialogue with TS officials.

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 FY0809 is shown in the table at 3.3 below. The sensitivities of this amount are the same as for FY0809 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 £12.7m. Note that all utility diversions and land compensation costs are anticipated to be spent by the end of FY0809.

### 3.3 Total project anticipated forecast cost

During Period 13 FY0708, the anticipated outturn on Phase 1a was adjusted upwards from £498m to £508m to reflect the final Infraco and Tramco prices and a consequential reappraisal of the Risk Allowance required to deliver the remainder of Phase 1a of the project. It is considered that this out-turn is materially consistent with the Final Business Case and is well within the funding cap of £545m.

All change control will now be reported against the AFC of £508m

#### Phase 1a AFC and profiling

£m	Cum FY0708	FY0809	FY0910	Balance	AFC
Infrastructure and vehicles	30.7	89.8	116.5	64.3	301.3
Utilities diversions	18.4	30.2	-	-	48.6
Design	21.4	2.4	0.3	0.3	24.4
Land and compensation	16.8	3.7	-	-	20.5
Resources and insurance	42.7	14.8	10.2	13.2	80.9
<b>Base costs</b>	<b>130.0</b>	<b>140.9</b>	<b>127.0</b>	<b>77.8</b>	<b>475.7</b>
Risk Allowance	-	10.0	12.7	9.6	32.3
<b>Total Phase 1a</b>	<b>130.0</b>	<b>150.9</b>	<b>139.7</b>	<b>87.4</b>	<b>508.0</b>
Phase 1b	3.0	3.0	29.2	52.1	87.3

As previously agreed, cumulative costs incurred to the end of FY0708 also include £3m incurred on Phase 1b design meaning that total costs to the end of FY0708 were £133m.

The estimate for Phase 1b 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 Infraco contract is exercised in sufficient time to allow construction of Phase 1b to commence in July 2009. A project has been initiated to deliver an updated business plan and financing plan for Phase 1b for presentation to CEC in autumn 2008.

### 3.4 Change control

The current change control position is summarised in the table below.

PHASE	1A	1B	TOTAL
BASE ESTIMATE	498.10	87.30	585.40
APPROVED CHANGES - to Financial Close - P13 07/08	9.91	0.00	9.91
CONTROL BUDGET - Baseline	508.02	87.30	595.32
APPROVED CHANGES - post Financial Close	0.00	0.00	0.00
REVISED CONTROL BUDGET	508.02	87.30	595.32
ANTICIPATED CHANGES	0.00	0.00	0.00
CURRENT AFC	508.02	87.30	595.32
PREVIOUS AFC	508.02	<del>87.30</del>	595.32

- 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, Tramco prices and a consequential reappraisal of the risk allowance;
- 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 – Agreed Tram Project Board approved changes from this point on. There are none to report at this point; 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 given in the 07/08 Period 3 report.

Key Milestone	Baseline Date	Act/Fcast Date
Approval of DFBC by CEC	21 Dec 06A	21 Dec 06A
Approval of DFBC by Transport Minister – approval and funding for utility diversions	16 Mar 07A	16 Mar 07A
TRO process commences		
Tramco – complete initial evaluation / negotiation	09 Mar 07A	09 Mar 07A
MUDFA – completion of pre-construction period of MUDFA contract	30 Mar 07A	30 Mar 07A
MUDFA – commencement of utility diversions	02 Apr 07A	02 Apr 07A
Infraco – return of stage 2 bids	08 May 07A	08 May 07A
Tramco – appointment of Preferred Bidder	21 Sep 07	20 Sep 07A
Infraco – completion of evaluation / negotiation of bid	10 Sep 07	25 Sep 07A
Infraco – appointment of Preferred Bidder.	25 Sep 07	23 Oct 07A
Approval of FBC by TS – approval and funding for Infraco / Tramco <i>Letter approved, but not yet signed.</i>	09 Jan 08	Dec 07
Tramco / Infraco – facilitation of novation negotiation complete	22 Oct 07	19 Mar 08A
Infraco – negotiation of Phase 1b complete.	30 Nov 07	19 Mar 08A
Tramco / Infraco – final negotiation and appointment	11 Jan 08	19 Mar 08A
Tramco / Infraco – award following CEC / TS approval and cooling off period.	28 Jan 08	02 May 08
Construction commences on Phase 1a	26 Feb 08	05 May 08
Construction commences on Phase 1b	29 Jun 09	6 Jul 09
TRO process complete	19 Jun 09	Apr 10
Construction complete Phase 1a	08 Jul 10	17 Jan 11
Operations commence Phase 1a	Jan 11	July 2011*
Construction complete Phase 1b	Jun 11	30 Jun 11
Operations commence Phase 1b	Dec 11	Jan 2012

\*Assumes that there is not a construction embargo in Picardy Place in August 2010.

#### Guidance for Completion:

Legend for colouring of Act/Fcast date text

Green

Yellow

Red

Act/Fcast date is ahead or in line with baseline

Slight slippage – readily recoverable with action.

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

### 4.2 Key issues affecting schedule

- The impact of the BT Openreach programme on the Infraco construction programme continues to be monitored with the construction of two major BT chambers identified during the period as potentially clashing with Infraco. One has been removed through Traffic Management, while the second is under review; and
- Delivery of design programme – Final contract programme for novation in place with attached mitigations.

#### MUDFA

- Construction progress at Foot of the Walk being monitored to ensure that programme remains ahead of required Infraco start;
- Scope that has been transferred from sections 5B and 5C to Infraco has still to be realised in the Infraco construction programme and any resultant impact understood;
- Network Rail Pollution Prevention Programme, although commenced, gives cause for concern; and
- St. Andrew Square enabling and CEC streetscape works.

### **4.3 12 week look ahead**

Will be included as a separate file via CD. Critical items include:

#### Section 2A

- Track;
- Russell Road bridge; and
- Haymarket Station viaduct.

#### Section 5A

- Murrayfield stop retaining walls;
- Murrayfield Stadium retaining walls; and
- Murrayfield underpass.

#### Section 5B

- Track
- South Gyle access bridge; and
- Bankhead Drive retaining wall.

#### Section 5C

- Track.

#### Section 6

- Depot.

#### Section 7

- Gogar culvert 1;
- Gogarburn retaining wall 1;
- Gogarburn retaining wall 2; and
- Gogarburn culvert 2.

## 5 Risk and opportunity

### 5.1 Review project risk register

#### Top risks

The top risks in the Primary Risk Register are:

*Risk Id 286: Infraco refuses to accept or fully engage in novation of SDS.*

The actions identified to mitigate this risk are highlighted in the Primary Risk Register. The actions are complete as Contract Award and novation are imminent.

*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.

*Risk Id 987: CEC do not agree to final negotiated contract.*

The mitigation of ongoing member engagement to ensure this does not happen is an ongoing activity and will continue until the contract is awarded.

*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 reviews

A review of the MUDFA risk register took place in Period 1. This was carried out by the Risk Manager and the MUDFA Construction Director.

The Network Rail Risk Register was progressed following receipt of the initial register from Network Rail after a risk workshop. This was progressed at tie's end by the Risk Manager, the Project Manager and Assistant Project Manager for Engineering and Development. The output was returned to Network Rail in advance of the next risk workshop.

There were no significant risks added or closed during the period. The QRA has been assessed as adequately reflecting the negotiated Infraco contract suite and other risks during the construction phase of the project.

One risk on the MUDFA risk register has been realised and will require funding. This is *Risk Id 342: 1,500mm sewer requires to be diverted*. The MUDFA contract team are required to divert a 1,500mm sewer in the Gogar area and will, in the coming period, calculate the cost of this additional work. Any drawdown on the risk allocation will be highlighted in the Period 2 report.

### 5.2 Risk action plan for next period

All risk mitigations are identified in the Primary Risk Register.

### 5.3 Schedule quantitative risk analysis

This will be carried out once the programme has been agreed.

### 5.4 Review project opportunity register

On Contract Award, a number of value engineering initiatives will be instructed.

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## **6 Health, safety, quality and environment**

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

The AFR for the project is now 0.15.

There was one major injury accident, reportable under RIDDOR to the Health and Safety Executive, in the period. The **tie** reference for this incident is AIIR00099. An interim report has been received from the MUDFA contractor. Operatives were removing material by hand in an excavation to an area where the excavator could remove it. During these works part of the excavation became dislodged and struck one of the operatives on his leg resulting in a fractured ankle. Work was stopped and the individual taken to hospital. All excavation works have been reviewed. The final investigation report with recommendations is awaited.

A near miss was reported regarding the traffic management and pedestrian arrangements on Constitution St on 25 April. An independent **tie** director will chair a panel that will formally investigate this issue and lessons learnt.

There were no other site accidents reported. There were two minor office-based accidents. Twelve other incidents and three near misses were reported in the period.

### **6.2 Environment**

Two incidents were reported in the period. Both were in relation to the discovery of human remains / graves in Constitution Street outside South Leith Parish Church. The appointed site archaeological contractors have dealt with the incidents.

### **6.3 Quality**

Nothing to report this period.

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## **7 Stakeholder and communication**

### **7.1 Stakeholder / communication strategy / plan**

The Communications and Stakeholder strategy is part of the Final Business Case, which was finalised at the end of 2007. A review of this strategy will take place by June 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 Communication and stakeholder matters arising from previous period**

- Production and distribution Update 4 – Shandwick Place Phase 2;
- Briefings held on construction programme to press and key stakeholders;
- Production of tram information boards along key locations of the route;
- Press coverage of Line 1B, Community Boards, Open for Business and Small Business Support Scheme;
- Management of sponsorship events and exhibitions;
- Stakeholder strategy in Constitution St being implemented and working well;
- Continue to work with traders regarding effective marketing of the 'Open for Business' strategy;
- Tram Operations Group has been set up for retail and tourism sectors. This meets monthly with the intention of working to create transparency for local businesses;
- Attended a meeting with the formation of the Leith Walk Traders Association;
- Rules of the Small Business Support Scheme amended to change the definition of a frontager so as to give access to support for certain businesses based on side streets;
- All customer notices have been sent out to residents and businesses affected by the London Road works; and
- New construction updates prepared for Constitution St and Leith Walk.

### **7.3 Communication and stakeholder action plan for next period**

- Production and distribution of updates for upcoming work sites;
- Media briefings for contract close and upcoming works;
- Prepare copy for Outlook;
- Produce tram fact sheet May; and
- Open for Business Marketing Group.



## **Appendix 'A' Detailed cost report**

**(Excel Template PSF1 and PSF2 attached as separate spreadsheet)**

## **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 1 - 2008/09 Full 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								
286	Infraco lack of confidence in SDS designs or delivery programme	Infraco refuses to accept or fully engage in novation of SDS.	Possible delay to award; Damage to reputation; Possible extra costs or risk transferred back to tie.	B Dawson	Medium - 14.00	Project	Complete designs and allow due diligence to be undertaken by bidders	On Programme	On Programme	1-Oct-08	B Dawson
							Consult with legal on options relating to due diligence to be carried out on design and availability of consents	Complete	Complete	28-Aug-07	B Dawson
							Introduce and engage Infraco bidders to SDS as early as possible	Complete	Complete	28-Feb-07	B Dawson
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	NIL - 0.00	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
987	Unacceptable financial cost and/or risk	CEC do not agree to final negotiated contract	Potential cancellation of project	D Fraser	NIL - 0.00	Project	Ongoing member engagement	On Programme	On Programme	Ongoing	W Gallagher

ARM Risk ID	Risk Description			Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	Cause	Event	Effect								
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 - 25.00		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	31-May-08	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 - 25.00		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	31-May-08	A Hill
342	Tram alignment at A8 crossing at Gogar coincides with 1500mm sewer	1500mm sewer required to be diverted	Capex cost to cover BT data nest/cable move; additional design costs; delay while works to undertake move are carried out; additional tunnelling costs.	I Clark	High - 24.00		Confirm if diversion required	On Programme	Complete	8-Mar-08	G Barclay
							Confirmation of BT requirements to tie	Complete	Complete	15-Oct-07	I Clark
352	Increase in land values	Higher land compensation claims than anticipated	Additional uplift on compensation claims	A Sim	High - 20.00		Close out	On Programme	On Programme	28-Mar-08	A Sim
							Initiate early negotiations between DV and landowners	On Programme	On Programme	Ongoing	A Rintoul
							Liaise with CEC Planning	On Programme	On Programme	Ongoing	R McMaster

ARM Risk ID	Risk Description			Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	Cause	Event	Effect								
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.	T Glazebrook	High - 23.00		Issue containment 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
44	SDS contractor does not deliver the required prior approval consents before novation	Late prior approval consents	Delay to programme with additional resource costs and delay to infraco. Impact upon risk balance.	T Glazebrook	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
							Hold weekly CEC/SDS liaison meetings	On Programme	On Programme	Ongoing	T Glazebrook
							Informal consultation prior to statutory consultation	On Programme	On Programme	31-Jul-08	T Glazebrook
							Integrate CEC into tie organisation/accomodation (office move)	Complete	Complete	4-Jun-07	T Glazebrook
							Tram Design Working Group	On Programme	On Programme	Ongoing	G Murray
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.	S Clark	High - 23.00		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
931	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; known redundant utilities; unknown live utilities; unknown redundant utilities.	Unknown or abandoned assets impacts scope of Infraco work	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	T Glazebrook	High - 23.00		GPR surveys in areas where there are likey to be services	Complete	Complete	1-Apr-07	T Glazebrook
							MUDFA trial holes to verify GPR surveys	On Programme	On Programme	31-Jan-09	P Douglas

ARM Risk ID	Risk Description			Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	Cause	Event	Effect								
914	Required approval/acceptance turnaround time does not reflect SUC standard practice; SUCs do not have enough resource or process capability to achieve 20 day turnaround	Statutory Utility Companies unable to meet design approval/acceptance turnaround time to meet programme	Additional period required for design approval/acceptance turnaround	T Glazebrook	High - 20.00		SDS to obtain consent for design in accordance with programme requirements - Scottish Water and all Telecoms	On Programme	On Programme	30-Jun-08	I Clark
							SDS to obtain consent for design in accordance with programme requirements - SGN and Scottisk Power	On Programme	On Programme	30-Jun-08	M Blake
271	Inadequate quality of submission of approval. Partial submission of package. Programme compression. Lack of CEC resources.	Failure to process prior approvals applications within 8 weeks	Delay and disruption to Infracore programme	T Glazebrook	High - 10.00		Agree approvals submission arrangements with CEC to align with SDS design programme and procurement programme.	On Programme	On Programme	31-Mar-08	T Glazebrook
							Assure the quality and timing of submissions	On Programme	On Programme	29-Aug-08	T Glazebrook
							Final agreement to be approved by Roads Authority, CEC Promoter, CEC in-house legal and tie	Complete	Complete	28-Feb-07	T Craggs
							Finalise alignments and gain agreement from CEC	Complete	Complete	29-Dec-06	T Craggs
							Where appropriate increase case officer resource to cope with programme compression	On Programme	On Programme	28-Aug-08	D Fraser



## Appendix 'E' Resource information

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