

DESIGN ASSURANCE STATEMENT PURPOSE

- ❖ **Provide a summary of the submission**
- ❖ **Statement that design is fit for purpose**
- ❖ **Exceptions are declared in an easily retrievable manner**
- ❖ **Facilitates Review Process**
- ❖ **Provides confidence of self assurance management**

DAS Process

- ❖ Managed by SDM's
- ❖ Disseminated to DTL's et al for input
- ❖ Provided with each subsection design submission
- ❖ Where applicable references required for each statement
 - Drawing/document references
 - System Wide impact references
 - CDM information
- ❖ Exceptions/Deviations detailed in appropriate section of DAS
- ❖ References where risks/hazards remain open
- ❖ Guidance notes included
- ❖ Signed off by SDM, Design Manager and Project Manager

DAS Example

APPENDIX 1 - EDINBURGH TRAM NETWORK 121 SIGN ASSURANCE STATEMENT

(For clarification refer to guidance notes attached)

<p>a) SUBMISSION DETAIL & TITLE: Section / Sub Section to which this Certificate Relates: (7) Date of Issue: (8)</p>	<p>b) Summary of Section / Sub Section Submission: (9)</p>
<p>c) Submission Specific Design Documents: (10)</p> <p>Have all Submission Specific Design Documents been reviewed, approved and under variation control (in Homogeneity)? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:</p>	<p>d) Submission Specific Drawings: (11)</p> <p>Have all Submission Specific Design Documents been reviewed, approved and under variation control (in Homogeneity)? Yes <input type="checkbox"/> No <input type="checkbox"/> Comments:</p>
<p>e) Applicable Systems-Walk Throughs and Characteristics: (12)</p> <p>Have all applicable Systems Walk Throughs and Documents been reviewed, approved and under version control (in Homogeneity)? Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>Yes</p>

DAS Completed Example

APPENDIX 1 - EDINBURGH TRAM NETWORK IN SIGN ASSURANCE STATEMENT

a) **SUBMISSION DETAILS / TITLE:** Sub-Section 5C design Assurance Statement v1
Section / Sub-Section to which this Certificate Relates: (7) 5C
Date of Issue: (5) 08th May 2007

b) **Summary of Section / Sub-Section Submission:** (9)

Section 5C is 1.5km long and runs from Edinburgh Park Sign (exclusive) to Coggerburn Stop (inclusive). The track is segregated through the Edinburgh Park Development area with one signalised road crossing at Leithside Avenue. The track is then segregated, until another signalised road crossing at South Gyle Roadway, heading towards the Gyle centre. The track is segregated for the remainder of the section, running parallel to the Gyle shopping centre where there is a tram stop, before running underneath the A11 road. The tram route then branches off into the Depot (Section 6 - a separate submission) and Section 5C alignment continues west along a retaining structure and then at grade through existing farmland until it reaches the Coggerburn tram stop.

There are two tramstops in the section, Gyle and Coggerburn. There are no substations. There are two structures, Gyle Transport retaining wall (W19) and A11 Underpass (SR) in the submission.

Drainage, Landscaping and Utilities design forms part of this technical submission.

TRC - It is planned to produce a draft TRC for the whole LCD following completion of the PD2 design. This is a separate submission to this one.

TTRC - There are 2 TTRCs one to cover the MUDFA works and a second to cover the INFRA200 works, the MUDFA TTRC has been completed. This is a separate submission to this one.

c) **Submission Specific Design Documents:** (10)

Roads

- Section 5C (Edinburgh Park to Coggerburn) Roads Technical Design Statement - Detailed Design (ULE90130 QS REP 00201 V1). *Issued to the 19 February 2007 in Transmittal No. ULE90130 SW DTF 01125.*
- Roads Design Specification Department of Transport Manual of Contract Documents for Highways Works, Appendix 11/1, Kerbs, Footways, Cycleways, Laybys, Busways and Paved Areas (ULL90130-SW-SPN-0000 V2). *Issued to the 19 February 2007 in Transmittal No. ULE90130-SW-DTF-01425.*
- Roads Design Specification Department of Transport Manual of Contract Documents for Highways Works, Appendix 12/1, Traffic Signs: General (ULE90130-SW-SPN-0000 V2). *Issued to the 19 February 2007 in Transmittal No. ULE90130-SW-DTF-01425.*
- Section 5C - Temporary Traffic Management Plan (ULL90130-SW-KLP-00250 V1). *Issued to the 9 October 2006 in Transmittal No. ULE90130-SW-DTF-00687.*
- Roads Safety Audit Unit - Stage 1 Sections 2, 3, 4, 5, 6 & 7 (ULL90130-SW-KLP-00109). *Issued to the 15 September 2006 in Transmittal No. ULE90130-SW-DTF-00772.*

Street Lighting

- Roads Design Specification Department of Transport Manual of Contract Documents for Highways Works, Appendix 14/1, Street Lighting (ULE90130 QS SCM 00102 V2). *Issued to the 19 February 2007 in Transmittal No. ULE90130-SW-DTF-01425.*

Risk Assessment

- Department of Transport Manual of Contract Documents for Highways Works, Appendix 7, Risk Assessment (ULP90130-SW-SPN-0000 V9). *Issued to the 19 March 2007 in Transmittal No. ULE90130 SW DTF 01026.*

PARSONS
BRINCKERHOFF

DAS Completed Example

a) Requirements Test Specification: Compliance of technical specification with Client needs/detined requirements (14)

Compliance of technical specification with Client needs/detined requirements. Are the relevant Requirements Test Specification entries populated with the required compliance entries?

Yes

No

Comments

The Requirements Test Specification will not be completed for this early submission as the demonstration of compliance against the requirements is an ongoing, progressive assurance that cannot be completed until all designs are completed. The Requirements Test Specification will be completed and submitted with the final design assurance statement.

b) Deviations and Non-Conformances including SIN requirements documentation: (14)

Detail relevant deviations and non conformances

None identified to date

Have all Deviations and Non-Conformances been approved and logged?

Yes

No

N/A

Comments

i) Applicable IDC Forms: (16)

Track

- 'IDC - Track Section 5C Alignment Detailed Design'

Street Lighting

- 'IDC Form Section 5C Street Lighting'

[Note: Sub Section IDC for 5C will be complete for the 'real' submission]

Do all IDC Forms contain no issues and have been correctly signed off?

Yes

No

Track No

Comments

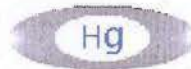
Track Recording of the resolution (or otherwise) of several IDC comments returned for the alignment design ('IDC - Track Section 5C Alignment Detailed Design') has not been completed on the IDC Form and its accompanying Document Review Report.

[Note: This will be completed for the formal Design Assurance Submission for Section 5C]

Summary

- ❖ **PB Quality Management System**
- ❖ **Suppliers & Subcontractors**
- ❖ **Design Production**
- ❖ **Design Assurance and Approval**

EDINBURGH TRAMS



**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

**Appendix 16
Notes from Commercial Workshop – 31st March**

EDINBURGH TRAM NETWORK
 BBUK POSITION WITH TIE REVIEW COMMENTS
 SUMMARY OF RESPECTIVE POSTIONS

ITEM	INFRACO		tie Review		Cons	
	BB	Siemens	BB	Siemens	BB	Siemens
HG 1	£5,120,000	£29,700,000	£1,500,000	£7,500,000		
	£34,820,000		£9,000,000			
HG 2	£5,120,000	£6,500,000	£2,700,000	£5,800,000		
	£11,620,000		£8,500,000			included £2.2 million Design
HG 2a (Part of PW below)	£2,150,000	£0	£1,350,000	£0		
	£14,000,000		£10,000,000			
Aux	£200,000		£200,000			
PW Value	£14,100,000	£10,000,000	£6,600,000	£10,000,000		
			+ Structures / Depot already executed			
PW Prelims	£7,200,000	£3,000,000	£5,000,000	£3,000,000		

EDINBURGH TRAM NETWORK
 BBUK POSITION WITH TIE REVIEW COMMENTS
 BCCUK

RE START UP COSTS	INFRACO PICTURE	TIE REVIEW COMMENTS	
Prelims (Not Received)	£10,240,000 £700,000 EOT included	Consider not underpaid at Period 38 based on D Murray Paper - £0	
	£5,120,000 Payment 1	£1,500,000 Payment 1	
	£5,120,000 Payment 2	£500,000 Payment 2	
Priority Works Prelims- Design - Ext CS	£500,000 per period (x4) £100,000 per period (x2)	£2,200,000 linked to completion of Design as completed	
BCCUK (£300K original + £400K top up)	£700,000 per period	Seems reasonable Subject to check on volume of	
Ramp Up (Aug / Sept) (Airport to Haymarket Scope)	£400,000 Aug / Sept	ditto	
Priority Works			
Princes Street TM/Enabling Works	£550,000	} ? - relates to P St TM Works	
Haymarket Yards	£875,000		
A8 (S28)	£750,000	} £4,800,000	
Depot Access Bridge	£518,000		} £1.7m relating to Depot
Depot - Building	£1,000,000		
Depot - External	£2,650,000		
Mini Test Track*	£600,000		
	£6,943,000		
Auxiliary Works			
1A Maintenance	£105,000	} Issue of principle over Structures / Depot £5,400,000	
Testing 5A	£110,000		
Sewer Lining at Water of Leith	£70,000		
Demolition Plots 97/102	£100,000		
A8 Maintenance	£525,000		
Structures General	£3,540,000		
Depot	£2,000,000		
Site Clearance / Contamination Testing	£40,000		
Target Price On Street Works			
Testing of Subformation	£400,000.00		
Princes Street Outstanding Works	£350,000.00		

RE START UP COSTS	INFRACO PICTURE	TIE REVIEW COMMENTS
Material Assets (includes Engineering Input)	39,000,000 Headline (11,000,000) BAM T/W (3,000,000) Other Materials <u>25,000,000</u> Payment 1	Supply & Instal from Original CPA (Excluding 'Engineering Input') 70% is materials 25,000,000 17,500,000 10,250,000 <u>27,750,000</u> (14,000,000) (3,000,000) <u>10,750,000</u>
Prelims (Not Received)	4,500,000 Payment 1	Prelims (Not Received) £0
Prelims (Under Recovery)	6,500,000 Payment 2	Prelims (Under Recovery) £0
		Restart Costs £500,000 Payment 1
		If Design Assurance Complete £2,000,000 Payment 2
Priority Works Systems	£25,000,000 less relevant materials allowance above	Period Valuation as works executed Process and Principles likely to be agreed. Values to be applied
Priority Works Prelims		
Siemens	£494,000 per period	Seems reasonable

RESTART-UP COSTS

PRELIMS
[NOT REC'D]

IN PRAGM

£10.24m
[£300k Est]

↳ £5.12m - PAYMENT ①
£5.12m - PAYMENT ②

to Consider
Comments

CHANGE SET
INSTR. PLAN & PD
BASED ON D.M.
PAGE
→ 40

£15m PAY ①
£25m PAY ②

P/W PRELIMS

(INCLUDES DESIGN) £500k/pond (x 4)
+ £100k/pond (x 2)

£1.2m LIMITED
TO COMPLETION
OF DESIGN AS
COMPLETED

BB [300000
+ 1000000] ~ £700k/pond

SEEMS
REASONABLE
W/ 3 MONTH
CHECK ON
VOLUME OF
WATER

PUMP UP [AUX/365] + £400k
[AIR - HAT SCOPE] [AUX/365]

PRIOR 17 WORKS

PRINCES ST
HATMAKER YARD
A8 [S20]

£550k
£975k
£750k } £1975k ~ £4.8m

DEPT ACCENTROES
DEPT - BUILDING
- EXTERNAL
MINI TEST TRACK ③

£518k
£1000k
£2650k
£600k } £4.7m

AUX

1A OFFICE
TESTING SA
SOUND & VIB
DEVELOPMENT
BY OFFICE
STRENGTHENING
IN OFFICE
2.5% CLEANING/OP TRK

£105k
£110k
£100k
£100k
£100k
£100k
£100k } £635k

2.5% of original
cost structure
TOTAL £5.4m

+ £400k (incl. 17.5m)
+ £200k (incl. 17.5m)

<u>ITEM</u>	<u>INFRACO</u>	<u>tie Pair</u>	<u>CONS</u>
Hg ①	BB S \$5.12m \$2.97m \$8.09m	BB S \$5m \$7.5m \$12.5m	BB S

Hg ②	\$5.12m \$6.5m \$11.6m	\$2.7m \$5.2m \$7.9m	
Hg (RA)	\$2.15m (Part of PW below) Avg	\$1.35m a.c.m.	
<u>PW Value</u>	\$4.1m \$8.0m	\$6.6m \$10.0m already included	

PW Prelims \$7.2m \$3m \$5m \$3m

TIE REVIEW
COMMENTS

SUPPLY & INSTALL
FROM ORIG C.P.A.

[EXCLUDING ENG INPUT] 70% IS MATERIALS

£25M

12.5
+ 10.25
= 22.75
- 12.00
= 10.75

£7M REVIEW
£37.5M PAYMENTS

£10.75M

PRELIMS [W/ ENG] £0

PRELIMS [UNDER REHEAT] £0

RESTART COSTS £500K

IF DESIGN ASSURANCE
COMPLETE £2000K

PERIOD
VALUATION
AS WORK
EXECUTED

PROCESS + PRINCIPLES
LIKELY TO BE APPLIED
VALUES TO BE APPLIED

SEEMS REASONABLE

INFLACO PICTURE

£39m Headline

- £11m BAM T/W

- £3m OTHER MATERIALS

£25m

- PAYMENT ①

£4.5m - PAYMENT ①

£6.5m - PAYMENT ②

SUPPLY & INST
FROM C
EXCLUDING

PREL
PREL
EST
IF

[£25m - ^{CLIENT} MATERIALS ABOVE] AGREEMENT

PERIOD
VALUATION
AS WORK
EXECUTED

£494k / Period

RE-STARTUP COSTS

MATERIAL ASSETS
[INCLUDES ENGINEERING PARTS]

PRELIMS [NOT REC'D]

PRELIMS [UNDEVELOPED]

PRIORITY WORKS

SYSTEMS

PW PRELIMS

SYSTEMS

Suzanne Smith

From: Gregor Roberts [Gregor.Roberts@tie.ltd.uk]
Sent: 04 April 2011 15:46
To: csmith@hg-group.co.uk
Cc: Richard Jeffrey
Subject: FW: Hg Report attachments

Colin,

Richard asked that in Dennis's absence that I commented on the figures which you sent earlier on today. The PDF sheet collated and circulated materially reflects what was discussed in the meeting on Friday. Some comments which I would add are:

Siemens sheet

- * Although not on the whiteboard (Infraco picture), it was noted by Axel that an estimated -£18m would come out of the systems priority works which relates to the materials payment which Siemens included in their proposed 'Payment 1'
- * Although not on the whiteboard (tie review comments), but for context a comment should be added "less BAM T/W & Other materials" against the -£14m. Likewise a comment "Already installed/Certified" should be noted against the -£3m at the top of the page.
- * For clarity, the £7m and £3.75m payments 1 & 2 should move down in-line with the £10.75m sub-total

BBCUK Sheet

- * (Infraco picture) Against the Auxiliary works the Structures General number should be £3,400,000. The figure included on the sheet was incorrectly noted as £3,540,000 in the notes.
- * The (Infraco picture) Auxiliary notes on the whiteboard had a sub-total of £6,375,000. This sub-total should be £6,350,000 with the amended £3.4m figure (there was a previous addition error of +£25k on the whiteboard)
- * All of the tie comments noted look in-line with my expectations

Summary of Respective positions

- * The summary picture reflects what was on the whiteboard. For accuracy, the HG2 Siemens number (tie review) section should read £5,750,000. This matches the back-up on the previous sheet and was only noted as £5.8m as a summary view on the whiteboard, this should be amended for clarity of the build-up, and the totals amended below.

Other than that I believe the summary to be a fair reflection of what was noted on the whiteboard at the meeting.

Regards,
Gregor

Gregor Roberts
Finance Director

Edinburgh Trams
Citypoint
65 Haymarket Terrace
Edinburgh
EH12 5HD

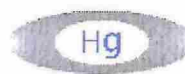


EDINBURGH TRAMS

**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

**Appendix 17
Re-Mobilisation Payments – Bilfinger Berger/Siemens Split**

EDINBURGH TRAMS



**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

Appendix 18 - Vesting of Materials stored at Broxburn

Our ref: ETN(BSC)TIE\$C&ABC#050966

10 May 2010

tie limited
CityPoint
65 Haymarket Terrace,
Edinburgh
EH12 5HD

Bilfinger Berger Civil EDI	
Date	12 MAY 2010
EDI Number	
Address	
Destination	

Bilfinger Berger-Siemens-CAF Consortium

BSC Consortium Office
9 Lochside Avenue
Edinburgh Park
Edinburgh
EH12 9DJ
United Kingdom

Phone: +44 (0) 131 452 2800
Fax: +44 (0) 131 452 2900

For the attention of Steven Bell – Project Tram Director

Dear Sirs,

**Edinburgh Tram Network Infraco
Vesting of Materials Stored at Broxburn**

On 19 April 2010 Siemens provided by e-mail its proposed Certificate of Vesting to tie in respect of Materials and Parts in respect of traction power supply equipment stored by Siemens at its warehouse in Broxburn. Pursuant to the Certificate of Vesting Siemens shall transfer title in the Materials and Parts listed in Schedule 1 of the Certificate and property therein shall pass and vest absolutely with CEC.

Siemens consider that the execution of the aforesaid Certificate of Vesting will afford the following benefits:-

- Immediate vesting of title in favour of CEC in the aforesaid Materials and Parts absolutely and free from all security interests, encumbrances, charges or other third party rights;
- Avoidance in full of any possible entitlement or liability for future increased costs or finance costs whether by way of escalation or otherwise in respect of the value of such Materials and Parts, including but not limited to increased procurement costs, shipment and third party storage costs;
- Protection for CEC from third party rights;
- Increased control and flexibility over use, storage and inspection of Materials and Parts;
- Facilitation of future acceleration or mitigation measures;
- Evidence of discharge of obligations of tie in respect of 'best value'.

Siemens trust that the attached Certificate of Vesting meets with your approval and trust that tie will be a position to confirm its acceptance of the same in the near future. We propose to make appropriate deduction of the amount of the proposed interim payment from the Construction Milestones Payments identified as 'OLE' in Schedule Part 5 of the Infraco Agreement.

Yours faithfully,

[Redacted Signature]

Project Director
Bilfinger Berger Siemens CAF Consortium
MFO/FWA/TWR



Attachments: ETN(SPM)TIE-IPAB\$CF&ABD#054022 TPS material values (on CD)
Draft Certificate of Vesting of Materials

cc: Alejandro Urriza, CAF
Kevin Russell, Bilfinger Berger
Axel Eickhorn, Siemens
Susanne Fersch, Siemens
Patrick Scully, Siemens
Alfred Brandenburger, Siemens

CERTIFICATE OF VESTING OF MATERIALS

This Certificate is for the benefit of tie Limited (company number SC230949) for and on behalf as of the City of Edinburgh Council ("CEC"), whose registered office is at City Chambers, High Street, Edinburgh, Midlothian, EH1 1YJ ("tie") and relates to the vesting of the Materials and Parts described in Schedule 1 hereto attached and intended to form part of the Infraco Works in respect of the Edinburgh Tram Network.

We Siemens plc of Faraday House, Sir William Siemens Square, Frimley, Camberley, GU116 8QD, England, in consideration of tie's agreement to make payment under the Infraco Contract to Siemens of the sum of Five Million, Seventeen Thousand, Two Hundred and Ninety Seven Pounds and Seventy Two Pence (£5,017,297.72 (exclusive of VAT) on or before [INSERT DATE] in respect of the Materials and Parts, hereby warrant and undertake to tie that:-

- 1 the Materials and Parts listed in Schedule 1 are intended for incorporation in the Edinburgh Trams Network (the "Infraco Works");
- 2 nothing remains to be done to the Materials or Parts to complete the same up to the point of their incorporation in the Infraco Works;
- 3 the Materials and Parts have been set apart from any third party property and stored at the Siemens warehouse situate at Unit 9B, Simpson Road, Broxburn, EH62 5NP (the "Premises") and have been clearly and visibly marked, so far as practicable, in order to identify such Materials and Parts as belonging to CEC and have been identified for use in the Infraco Works.
- 4 property in the Materials and Parts (including but not limited to supplies received by us from a third party for incorporation in the Materials and Parts) is vested absolutely in us and the Materials and Parts are free from all Security Interests, encumbrances, charges or third party rights of any kind and we are able to pass title to CEC in the Materials and Parts absolutely;
- 5 the Materials and Parts are in every respect in accordance with the requirements of the Infraco Contract;
- 6 the Materials and Parts shall at all times after the date of this Certificate be insured by tie by way of the OCIP Insurances taken out and maintained in full force and effect by tie for the required term;
- 7 the Materials and Parts can be inspected at the Premises at any time upon reasonable notice by tie and/or tie's Representative or by its duly authorised agents; and
- 8 we shall not, except for use on the Infraco Works, remove or cause or permit the Materials or Parts to be moved or removed from the Premises.

We declare that property in the Materials and Parts shall unconditionally vest in CEC in accordance with Clause 9 of the Infraco Contract upon receipt of the interim payment referred to above.

EDINBURGH TRAM NETWORK-INFRACO CONTRACT

Nothing contained in this Certificate or the Infraco Contract or any payment that may be made to us in respect of the Materials or Parts shall be taken as any approval by tie and/or tie's Representative that the Materials or Parts are in accordance with the Infraco Contract.

We shall indemnify and save harmless tie from all costs, claims, demands, losses and expenses of whatsoever nature arising from any loss or damage to the Materials or Parts howsoever arising and any breach or non-observance of any of the terms contained in this Certificate save to the extent that such loss or damage is insured by tie in the matter described herein.

Executed for and on behalf of tie Limited

Dated

Signed by

We Siemens plc of Faraday House, Sir William Siemens Square, Frimley, Camberley, GU16 8QD, England engaged under a contract ("Infraco Contract") dated 08 May 2008 by tie Limited for, and on behalf as an operating company of City of Edinburgh Council warrant that the statements made in provisions 1 to 8 above are true and correct and that all the actions referred to have been taken.

Executed for and on behalf of Siemens PLC

Authorised Signatory

Full Name

Dated

Authorised Signatory

Full Name

Dated

EDINBURGH TRAM NETWORK-INFRACO CONTRACT

SCHEDULE 1

SCHEDULE OF MATERIALS AND PARTS

The Material and Parts are detailed herein in sheet reference ETN(SPM)TIEIPAB\$CF+GABD#054022- entitled 'TPS material values'.

4.0 APPROACH TO BRING A MANAGEMENT STRUCTURE TO DEAL WITH THE PROJECT CIRCUMSTANCES

The following attachments define:

- Meeting Hierarchy
- Governance Meeting Diary
- Governance Meeting Descriptors:
 - Joint Project Forum and Principals Meeting
 - Project Delivery Group
 - Programme & Risk
 - Tram Commissioning & Integration
 - Design, Consents & Commercial
 - Utilities, Princes Street & Construction
 - CEC Control / Consents
 - Communications
 - Lothian Buses – Ready for Operations
 - CEC Tram Briefing (Tuesday / Thursday)
 - Leith Works
 - Client Instruction and Control (CEC/Turner & Townsend (“T&T”))
 - All Party Oversight Group
 - City Centre Elected Members

It was agreed at mediation that a consensual approach be adopted to manage the project.

This called for tasks to be split into the component parts, with a facility for escalation to a more senior level within the project without causing either party to call for dispute resolution.

The role of the Independent Certifier was agreed by all the parties.

To date, the Certifier’s opinion has been sought and given on five occasions. There have been no challenges to the opinions and there are no disputes.

5.0 CLIENT CONTROL AND REPORTING

In order to exercise control and ensure accurate recording, all control meetings are minuted and agreed. The attached documents illustrate the range of issues being managed, which are then reported to CEC Tram Briefing meetings, chaired by CEC CEO Sue Bruce, and thereafter to the Joint Project Forum.

- Joint Project Forum Agenda and Minute
- Joint Project Forum and Principals Meeting Agenda
- Client Instruction and Control (CEC/Turner & Townsend)
- CEC Tram Briefing
- Lothian Buses Integration meeting
- Utilities, Princes Street & Construction
- Design, Consents & Commercial
- Programme & Risk
- Tram Commissioning & Integration
- Communications
- Test Track handover

6.0 PROGRESS PROGRAMME AND NEXT INITIATIVE

The following papers are attached:

- Notes of Planning and Programming meeting with Infracore, CAF and T&T
- Planning Options paper presented to the CEC Tram SMT
- Option York Place proposal

The notes from the Planning and Programme meeting reinforce the contract programme position. Notwithstanding this, since March 2011 the project team has worked together to merge the programme critical dates in order to secure agreement on the maximum advantage on dates possible. The Planning Options paper and the York Place proposal illustrate this driven approach.

The project composite programme to completion created and held by the Client will be ready for Board approval in September 2012. This programme will provide for Bilfinger Berger, Siemens, CAF and Lothian Buses' operations.

7.0 FINANCIAL BRIEFING REPORT – MAY 2012

7.1 Purpose

The purpose of this report is to brief the incoming Transport, Infrastructure and Environment Convener on the evolution of the capital cost of the project from the period leading up to mediation to the current point in time and the future forecasts. The briefing also includes detail on the business case appraisal and review on the project that was undertaken in the summer of 2011.

7.2 Pre Mediation

In the period prior to mediation a significant amount of effort went into identifying the likely cost of the project within a range of possible outcomes should the contract with the Infraco consortium be progressed or terminated.

During the period in the lead up to mediation, the Council's then Director of Finance requested that a member of his own team form part of the finance team at tie Ltd (tie), with a view to the Council having a greater degree of transparency in relation to project costs.

As a result of this, a group was formed that included tie's senior team and commercial team to assess the range of possible outcomes. CEC finance were a strong part of this group to ensure that the process was driven hard and that a full financial picture could be understood by the Council in advance of mediation. In addition to this, tie had already had a number of views on the likely commercial/contractual impacts from a number of sources, including legal and quantity surveyors as a result of previous commercial settlements they had attempted with the Infraco consortium as part of the commercial strategy they were following at that time.

The results of the various financial outcomes were then plotted on a spreadsheet with a working title of "Deckchair".

Prior to mediation, tie had also employed consultants, Gordon Harris Partnership and Tony Rush to pursue settlement of the commercial issues with BBS.

It became apparent from the pre-mediation work outputs that tie's commercial assessments of the likely outcomes were of a very hard line when compared to the assessment of where the culpability for delay fell. It has become clear that the dominant cause of delay to the works was the delayed MUDFA utility diversions.

The hard line tie were taking was also apparent in the position Tony Rush was advising versus the in-house tie commercial team. At that point tie was forecasting an estimated outturn cost of £638.2m to finish the line to St Andrew Square. This sum took no account of exclusions from the contract but did include tie's assessment of delay costs. The settlement deal (named Project Phoenix) that Tony Rush was discussing with Infraco at the time would have resulted in an anticipated final cost of £760.3m with defined exclusions still sitting outside the settlement.

The detail of the two positions is highlighted in Appendix I (Deckchair vs. GHP view 280211). The baseline for the position Tony Rush took in his assessment was the "Phoenix" deal he was discussing with Infraco. The Project Phoenix proposal was the baseline for Infraco's discussion at mediation.

7.3 Mediation

Work continued on the financial forecasts in preparation for mediation. The "Deckchair" spread sheet (Appendix 2 Deckchair v1) remained the repository of tie's financial forecasting. These forecasts were then presented to the full CEC/tie mediation team. The range of scenarios included in these forecasts were as follows (the deckchair spreadsheet also had a range of potential terminal points, the forecasts highlighted below were tie's view of St Andrew Square as the terminal point;

- Settlement with the current contractor (Assumes Infraco walks away and re-procure with a new contractor). All numbers in this scenario were tie's assessment.

High £698m
Medium £659m
Low £646m

- Phoenix proposal (Baseline proposal from Infraco on settlement)

Infraco view £747m
Tie view (high) £749m
Tie view (baseline) £682m

7.4 Settlement with the Current Contractor and Re-procure

This scenario seemed to be tie's preferred strategy with mediation in mind. There are a number of fatal flaws in the assumptions that tie made in this scenario. For example, the cost of settlement with Infraco was forecast by tie at £33m, which was essentially the balance of entitlement for work done set against work certified to date. This number was not cognoscente of any contractual entitlement Infraco would have had for delay (MUDFA delay being the dominant cause) or disputed design changes for work that had already been undertaken. In addition, this forecast assumed a new contractor would be able to take up where Infraco left off without any risk allowance being included and without any "bad project" premium being allowed for in the price. In addition, there was no indexation built in for materials that would be required where the price would have changed in relation to the original contract sum. It is also important to note that tie had priced the on-street section from Haymarket to St Andrew Square at £19m and did not allow for any significant risks for the on-street section at this time, nor did they allow for any extension to the programme as a result of having to re-procure.

7.5 Phoenix Proposal

As highlighted above, the Phoenix proposal represented Infraco's opening position at mediation. tie's negotiating standpoint on this proposal was that a deal could be achieved which would have resulted in an anticipated final cost of £682m compared with the Infraco proposal, which would have resulted in an anticipated final cost of £747m.

On closer examination of the Infraco Phoenix proposal it became clear that there was c£80m of exclusions in this proposal which may have resulted in a similar addition to the final cost of the project, had CEC signed up to the Phoenix proposal as it was.

7.6 Separation

As highlighted above, tie would have preferred to terminate with Infraco and re-procure. This went against all the advice that was given by independent advisors at this time. During the initial stages of mediation, there was a significant amount of discussion between tie and CEC (including CEC advisors) on the assumptions tie had made in the forecasts for separation. It soon became clear that tie had not considered a number of cost headings at this time which would have had a significant impact on the final cost. In very broad terms, these items were in the order of £150m for settlement, professional costs, bad project premium risk, systems re-procurement risk, and inflation, which would have potentially resulted in a final outturn cost of at least £800m. Appendix 3 (Optioneering 7 March 2011) shows the working papers from mediation for this eventuality.

7.7 Settlement on Heads of Terms

During the course of negotiations over two to three days at mediation, there were a number of offers and counter offers exchanges between the parties.

CEC's first offer to BSC was for £304m for the off-street section. At this point there were still a significant number of exclusions that sat outside the off-street price which were estimated at £80m. This price did not include for the remainder of the on-street works, which were thought to have been in the region of £20m. When the shape of this deal was added to the rest of the project costs, the estimated anticipated final cost was thought to be in the order of £731m.

Infraco did not accept this offer and returned with essentially an updated Phoenix proposal of £404m, which was only for the off street section. When risk, exclusions and the remaining project costs were added to this number the final cost would have been £814m.

CEC then replied with a final offer of £362.5m for the off-street section, with no exclusions and Infraco taking all the risk with the exception of minor utilities. By adding the rest of the project costs, £30m for risk and £22.5m for the on street section (which was an estimated figure and hadn't yet been negotiated) the anticipated final cost was £743.5m. The breakdown of these numbers can be found in Appendix 4 (High Level Budget Proposal Total Project v1.1).

7.8 Preparation for 30 June Council Report

The report to Council on 30 June 2011, examined the options that were available to the Council following mediation. The work in preparation for the report included a thorough financial appraisal of the various options. In the period running up to the Council meeting, confidential briefings were provided for members to examine the detail that supported each of the scenarios. In addition, the report to Council also included the findings of an independent examination of the Business Case for tram by Atkins (covered later in this report).

At that point in time, there were three options available to the Council. They were as follows;

to continue to attempt to secure the completion of the project under the existing contract;

to separate from the current contract and pursue matters either through the courts or by agreeing a commercial settlement with BSC, outside of the courts (this option would require decisions to be made subsequently about whether the project should be cancelled entirely or re-procured, either immediately, or at some point in the future); or,

to complete the project as far as St. Andrew Square/York Place on the basis of the terms outlined during the mediation talks, with a sub-option to complete only to Haymarket at this stage.

In evaluating each of these options from a commercial, legal and financial point of view, the Council worked with McGrigors and Faithful and Gould to assess the likely outcomes. McGrigors were able to provide legal advice on the liabilities and obligations (and the Council) had under the current contract that would have to be settled on exit, either mutually agreed or contested. Faithful and Gould were to provide the commercial summary of the likely quantum should the project be re-procured and were able to provide valuations for each of the legal obligations and assessed risk.

The McGrigors report forms Appendix 5 – (McGrigors scenario report DRAFT) of this document and the Faithful and Gould report can be found in Appendix 6 – (City of Edinburgh Council Report Rev 3 _2 Final). The McGrigors report, while in draft form was essentially complete and only required some final comments from tie.

The financial evaluations of each of the options were as follows;

Option I	£1.055bn
Option ii	£687m to £1.14bn
Option iii	£773m

The detail that underpins each of these numbers can be found in Appendix 7 – (Scenarios).

Option iii was recommended on the basis that completion of the first phase of line 1a from the Airport to St. Andrew Square/York Place was the only option that will, with a strong degree of certainty, produce a tram line for Edinburgh, as the first building block of a future network. This option also produced the more favourable business case and the greatest return on investment. The option provided full and final settlement with Infracore for all historic claims.

7.9 Business Case Review

As part of the options appraisal and in responding to a previous Council motion, officers appointed Atkins to undertake an audit of the tram business case. The Atkins report tested the reasonableness, credibility and assessed whether the process and tools used for the production of the business case were fit for purpose. The report concluded that the process was in line with standards and comparable with other schemes. The full Atkins report is included in Appendix 8 - Edinburgh Tram – (Business Case Audit Final Report).

In addition the patronage numbers were re-examined from the business planning numbers that were produced in 2010. These numbers showed that the optimal terminal point for the truncated tram line was St Andrew Square/York Pl versus the option to truncate at Haymarket which would have resulted in an estimated operating deficit. These numbers and plotted on the graph that forms Appendix 9 – (Cumulative Revenue Figures).

7.10 Budget and Risk Preparation for August 25 2011 Council Meeting

In agreeing the Edinburgh Tram Report to Council on 30 June 2011, the decision of Council set out a number of actions for Council officers. One of the key work streams that then resulted was the detailed analysis of risk and the further development of the budget based on the negotiations with the consortium over the settlement agreement.

A full review was then carried out on the key project risks against the proposed budget. This review included several workshops with the Council project team and also the staff that remained within tie. These sessions were chaired and scrutinised by Faithful and Gould. The numbers were then validated by Faithful and Gould. The Faithful and Gould report is included in Appendix 10 (Final - Settlement Agreement Budget Report Rev A). The review considered the robustness of the financial assessment as presented to Council on 30 June 2011 and was updated as new information became available.

The revised budget report was then produced based on the assessment of all the work that had been undertaken over nearly a two month period to assess the budget and risks. The key risk to the project at that time, as now (though diminishing daily) was utilities requiring to be diverted.

The detailed budget and risk assessment is included in Appendix 11 – (Post MOV5 Budget Development - Updated 26 Sept 2011).

7.11 tie Ltd close report and financial consequences

When the Council made the decision to replace tie with Turner and Townsend (T&T) as project managers, there was a clear handover put in place to ensure that the Council and the project were not exposed. Turner and Townsend were introduced to the project in a phased manner with tie staff leaving over the period of 3 or 4 months ensuring an adequate handover was in place.

In addition, to ensure sign off by the tie Project Director, a template document was produced to ensure that each project manager in tie provided a sign off document for their particular work stream, highlighting any issues which may impact on the project going forward.

This document was then signed off by the tie Project Director as an accurate record of all he was aware of.

7.11 tie Ltd close report and financial consequences cont'd

Subsequent to tie's departure, it became clear that the close report did not take into account a number of historical utility issues, primarily in relation to Scottish Water assets and the commercial difference that existed between tie and Scottish Water. The tie Close out report is included in Appendix 12 – (tie close Report Final 2810117.10).

7.12 Turner and Townsend

Since T&T took over the project management of the Infraco, Utility and CAF elements of the project, there have been negotiations around moving to a capped fee. These discussions have now been concluded with a price of £7m agreed as a capped some for the core works. In addition, T&T have agreed that where Council skills can be utilised to undertake a task within their team, they will make use of those resources which will derive further savings. It is also important to point out that due to the lack of skills in tie previously to deal with utilities additional resource has been required to manage this area due to its complexity. It is likely that by the end of this summer, utilities will be substantially completed.

7.13 Project Budget - August/September 2011

At the time the project budget was set there were a large number of uncertain items for which the risk/contingency allowance was identified totalling £34m, as work on the project has progressed more clarity has emerged on these items.

The key project risk as highlighted earlier is that of utilities. Generally speaking, the further away from project completion the greater is the risk exposure. In the case of utilities we are only a few months away from completion which means that there will be greater confidence in the risk profile of the project at that time. The uncontrollable risk of the weather remains. In the case of this project there were some significant risks in September 2011. Since that point in time these risks have either crystallised, been mitigated through management action, have reduced/not materialised or still remain as risks.

Those risks that have materialised have an associated cost which has been met by drawing down from the risk allowance. There have also been significant managements taken to date to mitigate risk, such as allowing the complete length of Shandwick Place to be handed over the contractor which has delivered programme efficiencies.

A number of opportunities exist for the project- these are items that will benefit the project in terms of cost or time. Any opportunity that is realised increases the risk and contingency allowance.

Since September 2011 considerable progress has been made and the project is much clearer on the challenges that face it. As such a large number of items have moved from being categorised as risks and are now being factored into cost forecasts. As a result of this the project's risk exposure has considerably reduced.

Current drawdown from risk allowance

The drawdown, as at period 1, from the risk allowance is £3.545m. This figure is primarily in relation to risk drawn down for utilities costs, partially offset by savings made from de-scoping work in the Forth Ports area from the original contract and savings made on Siemens track equipment and poles.

7.13 Project Budget - August/September 2011 cont'd

Area-by-area budget breakdown:

Infraco - Off-street

Position 25th August

The original budget for the off-street section was £360.06m. This figure provided for a base contract sum of £362.5m with an assumed saving of £2.44m relating to value engineering in the Forth Ports area. In addition a specific provision of £1.1m was made within the original risk allowance (of £34m) for risks in this section.

Current Position

The current forecast spend on the off-street section is £360.30m. The Forth Ports value engineering has been instructed and the £2.44m saving realised.

Infraco - On street

Position 25th August

The original budget for the on-street section was £38.8m. This figure comprised a base cost of £45.8m with an assumed saving of £7m to be found through value engineering initiatives. In addition provision was made in the risk allowance for two types of item-£2.772m for pricing assumption variations and £1.35m for specific risks in this section.

Current Position

The forecast spend for the on-street section is £40.506m. This position takes into account the delay in signing the settlement agreement in September 2011 due to the Council decisions on 25 August and 2 September 2011 and also takes account of the programme benefits gained to date in Haymarket and Shandwick Place.

Utilities

Position 25th August

The original budget (at 25th August 2011) for utilities was £2.91m. In addition a specific provision of £16.6m was made in the original risk allowance for utilities made up of delay and direct cost allowance.

Current Position

The current forecasted spend on utilities items for the project is £18.61m. To date changes of £4.861m relating to utilities have been approved and this sum has been drawn down from the risk allowance. It is anticipated that a further £10.839m will need to be drawn down from the risk project over the course of the project.

Explanation of Movement

As work on the project progressed after September 2011 it became apparent that the scope of the utilities work was considerably greater than had been anticipated or included in the tie close report. McNicholas Construction Services Ltd has been engaged by CEC to work on utility related items and whilst the cost of that work is more expensive than had previously been anticipated it has significantly mitigated the risk of delay to the project's completion date. It should also be noted that tie's assessment of legacy works in Leith Walk was £1.1m, now expected to be c£2.7m.

7.13 Project Budget - August/September 2011 cont'd

Area-by-area budget breakdown:

Trams

Position 25th August

The original budget for the tram vehicles (CAF) was £62.4m. There was no specific provision for any risks related to the contract for the provision of the tram vehicles.

Current Position

The current forecasted spend on the tram vehicles is £63.65m, £1.25m above the original budget. This sum will need to be drawn down from the risk allowance.

Explanation of Movement

The increased cost forecast for this area is attributed to the finalised contract amount with CAF being excess of budget and exchange rate fluctuations around the time of contract settlement.

Project Management

Position 25th August

The original budget for project management was £275.53m. There was no specific provision for any risks in this area (see risk budget section below for detail of general, project related risks).

Current Position

The forecast spend on project management is £273.19m, which assumes a credit of £5m for the sale of surplus trams. In the event this didn't happen the forecast would increase to £278.19m, which would be an increase of £2.66m on budget.

Explanation of Movement

The project management budget heading covers a wide number of individual budgets areas, many of which have seen movements in the forecast since the budget was set. The most significant area of increase is tie Ltd redundancy costs of £2.56m.

Risk

Position 25th August

The original risk allowance was set at £34m. Of this £10.222m was linked to specific risk in the on-street, off-street and utilities areas (as detailed in those respective sections above). The other key components of this risk allowance were £13.37m for delay related risks (of which £11.610m was linked to utilities), £3.3m for the risk of the project moving to a cost reimbursable basis, general design risk of £5.925m and other risks of £1.183m.

Current Position

Funding of £3.545m has already been drawn down from the risk allowance net of opportunities of £4.1m.

It is anticipated that a further £16.571m will need to be drawn down to fund utilities and there are changes in progress of £9.462m which is made up of the full cost of delay of £4.5m for delay in signing the settlement agreement (the full quantum of which is unlikely to be expended) and also £4.8m for the Edinburgh Gateway which is also included in third party contributions.

Further risks, contributions and opportunities

There remain opportunities in relation to programme efficiencies that have not yet been crystallised. The Council will continue to seek cost engineering solutions to mitigate risk and cost until completion of the project.

Conclusions

When the budget was set in September 2011, the base budget was £742m with a risk and contingency allowance of £34m. Since then the risk profile has changed due to the dynamic nature of the project. Back in September a significant part of the risk budget was made for delaying Infracore due to utilities. This hasn't yet occurred to any great extent and there is a great deal of confidence that this won't happen. The direct cost associated with utilities has however increased.

As at period 1 of 2012/12 financial year the financial position of the project is as follows;

	P1
	£'000
Original contract amount	755,196
Add: Approved changes (change 7,648 opportunities 4,103)	3,545
Add: Changes in progress	9,462
Add: Anticipated changes	16,571
Less: Opportunities to secure	-11,752
Less: Funding contributions	-8,716
TOTAL: Forecast cost	764,306
Original budget	742,943
Variance	21,363
Original risk allowance	34,057
Less: Variance (from above)	-21,363
Balance of risk allowance remaining	12,694

This summary statement tells us that when opportunities, approved change, change in progress and early warnings are taken account of (though early warnings are not yet expended and there will be continued attempts to mitigate) there is forecast to be c£12m left in the project budget. The full financial breakdown for period 1 2012/13 is included in Appendix 13 (SFLA- 2012-13- P1).

LIST OF APPENDICES TO FINANCIAL BRIEFING SECTION (MAY 2012)

- Appendix 1 Deckchair vs. GHP (28th February 2011)
- Appendix 2 Deckchair v1
- Appendix 3 Optioneering – 7th March 2011
- Appendix 4 High Level Budget Proposal – Total Project v 1.1
- Appendix 5 McGrigors Scenarios (Draft)
- Appendix 6 Atkins Independent Review – June 2011
- Appendix 7 Scenarios
- Appendix 8 Atkins Business Case Audit – July 2011
- Appendix 9 Cumulative Revenue figures
- Appendix 10 Faithful & Gould Post Settlement Budget – August 2011
- Appendix 11 Post MOV5 Budget Development – Updated 26th September 2011
- Appendix 12 tie Close Out Report (Final)
- Appendix 13 SFLA 2012 – 2013

APPENDIX 1 Deckchair versus GHP comparison - Phoenix & Separation

Relating to Presentation on 28/02/11 to CEC of numbers & GHP paper sent 25/02/11

Phoenix

tie Phoenix view Presented 28/2/2011

<u>Options Considered</u>	<u>tie Phoenix Position £m</u>	<u>BSC Phoenix Offer £m</u>	<u>tie View of BSC Offer £m</u>
BB+S Costs to Haymarket	247.8	368.7	368.7
CAF	62.5	65.4	65.4
SDS	10.0	15.1	15.1
Sub-total BSC Costs	320.3	449.2	449.2
Further Risk 'to Go' with BSC (exclusions to be Priced)	20.0	20.0	20.0
Non-BSC Costs (Haymarket to St Andrews Square)	19.2	n/a	19.2
Non-BSC Project Costs	266.4	n/a	266.4
Mediation & Professional Fees	3.0	n/a	3.0
Reinstatement	2.5	n/a	2.5
Sub-total Non-BSC Costs	291.1	0.0	291.1
Add Back Differential of Evaluation Vs. Cash	(33.2)	included	included
Add Back Delay to date allowance (9 months)	21.0	included	included
Other Entitlements	19.0	included	included
Further EoT Allowances	0.0	0.0	0.0
Sub-total Settlement	6.8	0.0	0.0
Total (plus £XX.Xm Risk/ Allowances above)	638.2	469.2	760.3

Adjustment /Diff

Reconciliation to GHP paper of 25/02/11

	<u>£m</u>
GHP Paper incorrectly state Infracore Phoenix offer is £410m. Actual offer is £449.2m	(39.2)
GHP Analysis deducts On-street works value (£40.0m). These are all relevant costs	(40.0)
GHP have assumed that the offer is a GMP, so have included no 'risk' for exclusions	(20.0)
Negotiation' VE/ Purchasing / Contamination adjustments included in GHP view	(10.0)
Additional Cost in GHP Paper to St Andrews Square (£24m-19.2m)	4.8
Difference BSC assessment of tie costs (£277.1m-271.9m)	5.2

Sub-total Differences in GHP figure to tie assessment of BSC Phoenix	(99.2)
GHP paper figure 25/02/11	661.1
GHP Check total	661.1
diff unreconciled	0.0

Financial Comparison of Core Possible Outcomes

Description	Continue as is			Certify			Terminate & Reopinion			Reopinion		
	W/ Silver Buyback (P/PSA-30)	BSC (P/PSA-30)	Obtain (P/PSA-30)	D	E	High	Low	OS View	High	OS View	High	OS View
Infrastructure ready for operation	0	0	0	0	0	0	0	0	0	0	0	0
Asphalt to Haymarket	0	0	0	0	0	0	0	0	0	0	0	0
Hydroelectric to S/S 3q	0	0	0	0	0	0	0	0	0	0	0	0
S/S to FOW	0	0	0	0	0	0	0	0	0	0	0	0
FOW to Bushwater	0	0	0	0	0	0	0	0	0	0	0	0
BB15												
Contract Works Price (BB15)	239.6	239.6	239.6	192.3	333.9	0.0	68.2	68.2	68.2	68.2	68.2	68.2
Value Engineering (Included)	(6.1)	(6.1)	(6.1)	(11.3)	0.0	0.0	90.8	90.8	90.8	90.8	90.8	90.8
Existing Change - Prices S	3.0	3.0	3.0	9.0	9.0	9.0	9.5	9.5	9.5	9.5	9.5	9.5
Existing Change - Other	35.5	45.3	43.8	43.8	43.8	43.8	13.1	13.1	13.1	13.1	13.1	13.1
Cost of Procurement	21.0	21.0	21.0	3.5	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0
Further engineering and education	21.1	21.1	21.1	16.5	16.5	16.5	0.0	0.0	0.0	0.0	0.0	0.0
Further design and delay	340.5	479.8	479.8	241.8	379.9	0.0	90.8	90.8	90.8	90.8	90.8	90.8
Infrastructure (BB15)												
Infrastructure (BB15)	342.5	479.8	479.8	241.8	379.9	0.0	90.8	90.8	90.8	90.8	90.8	90.8
Vehicles (CAF)	58.5	58.5	58.5	58.5	58.5	58.5	61.5	61.5	61.5	61.5	61.5	61.5
Design Cost Post-Notification (50%)	5.0	14.0	14.0	14.0	15.9	15.9	0.0	0.0	0.0	0.0	0.0	0.0
Total BSC	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Infrastructure (BB15)												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Total Infrastructure & Vehicles												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Total Infrastructure & Vehicles												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Total Infrastructure & Vehicles												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Total Infrastructure & Vehicles												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Total Infrastructure & Vehicles												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Total Infrastructure & Vehicles												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Total Infrastructure & Vehicles												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Total Infrastructure & Vehicles												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Total Infrastructure & Vehicles												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5	165.5	165.5	165.5
Total Infrastructure & Vehicles												
Infrastructure - to HW	13.9	22.9	22.9	13.9	22.9	22.9	14.0	14.0	14.0	14.0	14.0	14.0
Infrastructure - to SAS	40.0	40.0	40.0	40.0	40.0	40.0	35.7	35.7	35.7	35.7	35.7	35.7
Infrastructure - to FOW	20.0	20.0	20.0	20.0	20.0	20.0	40.3	40.3	40.3	40.3	40.3	40.3
Infrastructure - to NHR	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Risk allowance on new procurement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total New Procurement	404.0	532.4	532.4	316.3	456.6	0.0	165.5	165.5	165.5			

Updated - per Period 11 Consolidated PD Review Report

1	2	3	4	5	6	7	
	Project Control Budget (PCB) AFC	Approved changes	Current Budget (CAB) AFC	Project to Date P11	Current AFC (51/05/11)		
T01.01	Project management Staff Costs	26,608	523	27,221	25,906	35,206	X
T01.02	Recruitment Fees	468	(0)	468	449	498	X
T01.03	Travel & Subsistence / Conference	356	(0)	356	346	398	X
T01.04	Central Overheads	5,561	0	5,561	5,059	5,599	X
T01.05	IT & Software Costs / fitout	3,108	0	3,108	3,142	4,241	X
T01.06	Citypoint - rent,rates,s/c	2,172	607	2,779	2,709	3,465	X
T01.08	Short Term Contractors	197	0	197	197	197	X
T01.09	City Point Overheads	26	0	26	25	26	X
T01.10	Active Risk Manager	84	0	84	84	84	X
T01.11	Archaeological supervisor - Gogar works	268	(83)	185	154	248	X
T01.13	Archaeology - Non Gogar	0	643	643	334	660	X
T01.14	DRP Costs	0	2,985	2,985	4,484	4,808	X
T01.15	Tax Planning / Governance Costs (Non DLA)	0	0	0	22	302	X
T01	Total tie PM costs	38,955	4,876	43,831	46,913	55,643	Project Costs
T02.01	Core Team	7,631	0	7,631	2,679	7,631	X
T02	Total DPOF	7,631	0	7,631	2,679	7,631	Project Costs
T03.01	DLA-SDS	141	(0)	141	141	141	X
T03.02	DLA-TSS	32	0	32	32	32	X
T03.03	DLA- Site Investigation	1	0	1	1	1	X
T03.04	DLA-MUDFA	684	56	740	835	836	X
T03.05	DLA-Network Rail / Scotrail	120	(5)	115	115	115	X
T03.06	DLA-JRC	27	0	27	27	27	X
T03.07	DLA-Infraco	1,165	327	1,492	1,525	1,525	X
T03.08	DLA Vehicles & Driver supply contract	461	10	471	471	471	X
T03.09	DLA-BAA	22	2	24	24	24	X
T03.10	DLA-Land & Property (3rd parties)	26	0	26	26	26	X
T03.12	DLA-DPOF	86	(1)	85	86	86	X
T03.13	DLA-Tram Netwk/Roads Interface	22	0	22	22	22	X
T03.14	DLA-EARL Interface	39	0	39	39	39	X
T03.15	DLA-Commissioning Svcs Agmt	7	0	7	7	7	X
T03.16	OCIP	24	3	27	27	27	X
T03.17	Infraco Enabling	4	0	4	4	4	X
T03.18	HR issues	(0)	0	(0)	(0)	(0)	X
T03.19.01	DLA - HSQE	(0)	0	0	8	8	X
T03.19.02	DLA - Governance	1	0	1	84	172	X
T03.19.03	DLA - CEC Interface	0	0	0	18	18	X
T03.01-19	DLA	2,862	392	3,254	3,563	3,891	Project Costs
T03.20	D&W-General Advice	746	(27)	719	705	705	X
T03.21	D&W-TRO's	802	(316)	486	544	544	X
T03.22	D&W-Property	842	303	1,145	1,184	1,191	X
T03.23	D&W-Planning Monitoring	293	(85)	207	181	181	X
T03.24	D&W-TDWG	88	0	88	85	85	X
T03.26	D&W-Litigation	0	14	14	10	10	X
T03.27	D&W-Secondments	152	0	152	152	152	X
T03.20-25	Subtotal D&W	2,922	(111)	2,812	2,843	2,819	Project Costs
T03	Total LEGALS	5,785	281	6,066	6,347	6,461	X
T04.01	Design Services under SDS	11,666	0	11,666	31,315	31,315	X
T04.01.01	Overall Value Main Works (Unallocated)	6,857	2,477	9,334	0	7,334	X
T04.01.02	Section 1 Newhaven Road to Haymarket	2,628	0	2,628	0	1,111	X
T04.01.03	Section 2 Haymarket Corridor	244	0	244	0	1,111	X
T04.01.04	Section 3 Haymarket to Granton Sq	2,172	0	2,172	0	1,111	X
T04.01.05	Section 3 1B deduction	(1,850)	0	(1,850)	0	1,111	X
T04.01.07	Section 5 Roseburn Junction to Gogar	1,454	0	1,454	0	1,111	X
T04.01.08	Section 6 Gogar Depot	329	0	329	0	1,111	X
T04.01.09	Section 7 Gogar to Edinburgh Airport	443	0	443	0	1,111	X
T04.01.11	MUDFA / Utilities	563	(9)	554	0	1,111	X
T04.01.12	Claim	1,925	0	1,925	0	1,111	X
T04.02	Site Investigation under SDS	0	1,415	1,415	1,415	1,415	X
T04.03		1,415	(1,415)	0	0	0	X
T04	Total SDS	26,828	2,468	29,296	32,730	34,531	SDS
T05.01	Integrated Transport Model	2,454	30	2,483	2,476	2,498	X
T05.02	Surveys (MM)	166	0	166	166	166	X
T05.03	Consultancy (Historic)	10	0	10	10	10	X
T05	Total JRC	2,630	30	2,669	2,651	2,733	Other Costs/ Inc Land
T06.01	Technical Services	9,303	928	10,230	10,399	11,057	X
T06.02	Land agreement/negotiations	113	0	113	113	113	X
T06.04	TSS Second to CEC-Approvals support	62	0	62	62	62	X
T06.05	T&T Costs	81	81	162	81	81	X
T06.01-03	Subtotal TSS	9,508	1,009	10,517	10,656	11,343	Project Costs
T06.03	CEC staff costs	1,186	1,011	2,197	2,183	2,379	X
T06.03a	Subtotal CEC	1,186	1,011	2,197	2,183	2,379	Project Costs
T06	Total TSS and CEC	10,676	2,020	12,696	12,868	13,722	X
T07.01	Consultancies	21	0	21	21	21	X
T07	Total UTILITIES	21	0	21	21	21	Other Costs/ Inc Land
T08.01	Tech. Advisors-Parl.Support	269	0	269	269	269	X
T08.02	Tech. Advisors-Parl.Support-PM	29	0	29	29	29	X
T08	Total DESIGN SUPPORT	298	0	298	298	298	Other Costs/ Inc Land
T09.01.01	Network Rail - DA Work Contract 1	437	(200)	237	217	717	X
T09.01.02	Network Rail - Basic Implementation Agree	8	107	115	115	511	X
T09.02	BAA legal costs	0	0	0	(0)	(0)	X
T09.03	Network Rail - Asset Protection Agreement	0	1,403	1,403	1,334	1,611	X
T19.07.01	Network Rail - Development Services Agree	173	43	216	215	315	X
T19.07.02	Network Rail - Immunisation Implementat	4	125	129	0	140	X
T19.07.03	Network Rail - Others	823	(814)	9	9	9	X
T09	Total 3RD PARTY NEGOTIATIONS	1,445	644	2,089	1,880	2,007	Other Costs/ Inc Land
T10.01	D&W (10.01 & 11.01)	26	0	26	26	26	X
T10.02	Advisors (Colliers / DV)	201	0	201	178	201	X
T10.04	Advance Purchases OS/06 (Fees)	80	0	80	80	80	X
T10.05.01	Advance Purchases (GVD)	13,487	(1,836)	11,652	11,688	11,691	X
T10.05.02	Advance Purchases (gifted / free issue)	4,807	0	4,807	4,807	4,807	X
T10.05.07	Misc Land Costs	0	5	5	138	138	X
T10.05.03	BAA Contractor Costs	0	0	0	603	368	X
T10.05.04	BAA PM costs	0	704	704	168	173	X
T10.05.05	BAA Utilities	0	150	150	150	150	X
T10.05.08	Haymarket station compensation	0	1,050	1,050	889	703	X
T10.01-05	Subtotal Land	18,581	(27)	18,554	18,737	18,534	Other Costs/ Inc Land
T10.06.01	Business Support Primary payment	1,600	59	1,659	1,652	1,652	X
T10.06.02	Business Support Enhanced payment	350	(350)	0	0	0	X
T10.06.03	Business Support Admin	50	0	50	45	45	X
T10.06	Subtotal Business Support	2,000	(291)	1,709	1,697	1,697	Other Costs/ Inc Land
T10	Total LAND & PROPERTY	20,581	(316)	20,264	20,433	20,231	X
T11.02	TRC's - Technical	1	0	1	1	1	X
T11	Total TRCs	1	0	1	1	1	Other Costs/ Inc Land
T12.01	Fees / production Items - WS	851	(41)	810	808	808	X
T12.02	Fees / production Items - MH	559	(216)	343	441	441	X
T12.03	Tram branding	38	1	39	38	38	X
T12.04	PR Support	0	20	20	20	20	X
T12.05	Business development and marketing	1	10	11	11	11	X
T12.06	Media monitoring	31	(18)	13	13	13	X
T12.07	Media training	20	(20)	0	0	0	X
T12.08	Promotional materials	61	(53)	8	155	144	X

T12.09	Websites	70	(53)	26	26	26	x
T12.10	Events including Edinburgh Fringe	30	(23)	16	16	16	x
T12.11	Advertising	91	(36)	55	55	55	x
T12.12	Internal communications	14	(5)	9	9	9	x
T12.23	Sponsorship	0	17	17	17	17	x
T12.25	Sundries	0	0	0	0	0	x
T12.26	Princes Street Costs	0	74	74	124	124	x
T12.27	Public Information	0	190	190	119	167	x
T12.28	Team Costs	0	13	13	5	13	x
T12.29	External Resources	0	297	297	204	313	x
T12.32	Preparing for Operations	0	0	0	0	200	x
T12.01-12	Subtotal Communications	1,802	268	2,170	2,110	2,434	Project Costs
T12.13	S/H - Wider Community Consultations	573	(537)	36	36	36	x
T12.14	S/H - Events	5	12	17	17	17	x
T12.15	S/H - Open for Business	20	560	580	568	580	x
T12.16	S/H - Communications - MUDFA	27	55	82	82	82	x
T12.17	S/H - Communications - Infraco	0	27	27	27	27	x
T12.13-22	Subtotal Stakeholder	624	117	742	728	742	Project Costs
T12	Total COMMS / MARKETING	2,526	386	2,912	2,838	3,176	
T13.01	Non Executive Board	34	0	34	34	34	x
T13.02	Search Fees	5	0	5	5	5	x
T13.03	Overheads	2,664	0	2,664	2,376	2,890	x
T13.04	Ticketing Machines	74	74	74	73	95	x
T13.05	Tram Display Costs	0	0	0	22	22	x
T13	Total TEL	2,723	74	2,797	2,611	3,046	Project Costs
T14.02	Financial Consultancy	175	0	175	175	175	x
T14.03	WPI modelling (PM)	17	0	17	17	17	x
T14.04	WPI modelling (MVA)	11	0	11	11	11	x
T14	Total SERVICE INTEGRATION	203	0	203	203	203	Other Costs/ Inc Land
T15.01	INFRACO (PIUK)	265	0	265	262	262	x
T15	Total PIUK	265	0	265	262	262	Other Costs/ Inc Land
T16.01	Financial advisor 05/06	265	0	265	265	265	x
T16.02	Commercial advice	0	12	12	12	12	x
T16	Total FINANCIAL ADVISOR	265	12	297	297	297	Other Costs/ Inc Land
T17.01	Insurance consultancy	362	0	362	299	362	x
T17.02	DCP	3,591	0	3,591	3,079	3,591	x
T17.03	Claims below deductible	554	0	554	1	554	x
T17.04	Insurance Claims professional fees	0	2	2	12	12	x
T17.05	Recoverable Insurance claims - MUDFA	0	189	189	214	214	x
T17.06	Non-recoverable Insurance claims - MUDFA	0	0	0	1	1	x
T17	Total INSURANCE	4,507	192	4,699	3,566	4,633	Other Costs/ Inc Land
T01.12	MUDFA Site Overheads	13	0	13	28	28	x
T01.12a	Subtotal MUDFA Overheads	13	0	13	28	28	x
T18.01.01	Pre-construction Services	0	3	3	9	9	x
T18.01.02	Contract prelims	2,490	3,064	5,552	7,765	7,765	x
T18.01.03	Section 1a	4,745	(3,347)	1,398	4,932	4,932	x
T18.01.04	Section 1b	1,432	101	1,533	1,533	1,533	x
T18.01.05	Section 1c	3,090	780	3,879	5,316	5,316	x
T18.01.06	Section 1d	3,132	(260)	2,842	3,172	3,172	x
T18.01.07	Section 2	3,319	(1,209)	2,110	2,210	2,210	x
T18.01.13	Section 5a	158	0	158	158	158	x
T18.01.14	Section 5b	0	602	602	602	602	x
T18.01.15	Section 5c	0	20	20	0	0	x
T18.01.16	Section 5	265	1,730	2,016	2,016	2,016	x
T18.01.17	Section 7	4,767	(1,801)	2,967	2,967	2,967	x
T18.01.18	Unallocated to section	11,410	18,339	29,767	22,304	22,304	x
T18.01.19	Variations	1,037	2,466	4,403	3,741	3,741	x
T18.01.21	Claim(s)	0	0	0	525	525	x
T18.01.22	Transfer to / from Infraco	126	(126)	0	0	0	x
T18.01	Subtotal MUDFA	16,915	20,334	37,250	37,249	37,249	x
T18.02.18	Unallocated to section	11,627	(5,924)	6,704	10,231	13,796	x
T18.02.19	MUDFA related Non SJC costs	0	0	0	2,759	2,791	x
T18.02.22	Transfer to infraco	0	(575)	(575)	(3,413)	(6,113)	x
T18.02	Subtotal utilities	11,627	(6,499)	5,129	9,576	8,474	x
T18	Total MUDFA / Utilities	48,558	13,838	62,392	66,822	65,729	Utilities/ Other Infrastructure
T19.01.01	Prelims	53,330	0	53,330	60,090	58,107	x
T19.01.02	Infraco early mobilisation	6,538	(0)	6,538	0	0	x
T19.01.03	Advanced purchases	18,000	0	18,000	0	0	x
T19.01.04		27	0	27	0	0	x
T19.01.05	Section 1a	15,993	0	15,993	1,546	15,427	x
T19.01.06	Section 1b	6,707	0	6,707	128	6,787	x
T19.01.07	Section 1c	8,816	0	8,816	151	9,816	x
T19.01.08	Section 1d	6,112	0	6,112	2,208	6,112	x
T19.01.09	Section 2	5,502	0	5,502	728	5,502	x
T19.01.15	Section 5a	19,030	0	19,030	258	19,030	x
T19.01.16	Section 5b	20,042	0	20,042	5,555	20,042	x
T19.01.17	Section 5c	11,057	0	11,057	1,744	11,057	x
T19.01.18	Section 6	12,967	0	12,967	6,810	12,967	x
T19.01.19	Section 7	11,130	0	11,130	1,290	11,130	x
T19.01.20	Unallocated to section	18,240	0	18,240	0	0	x
T19.01.21	NR Immunisation	3,000	0	3,000	736	3,000	x
T19.01.05-Subtotal Construction		219,190	(0)	219,190	101,223	218,561	BB+S
T19.01.26	Maintenance mobilisation and spare parts	2,795	0	2,795	2,350	2,795	Other Costs/ Inc Land
T19.01.35	Variations - Prelims	3,739	3,739	215	3,739		BB+S
T19.01.36	Variations - Section 1a	46	46	243	444		BB+S
T19.01.37	Variations - Section 1b	43	43	323	463		BB+S
T19.01.38	Variations - Section 1c	24	24	485	990		BB+S
T19.01.39	Variations - Section 1d	2,111	2,111	10,064	10,272		BB+S
T19.01.40	Variations - Section 2	413	413	372	791		BB+S
T19.01.46	Variations - Section 5a	2,802	2,802	1,456	6,244		BB+S
T19.01.47	Variations - Section 5b	2,611	2,611	1,957	5,680		BB+S
T19.01.48	Variations - Section 5c	2,702	2,702	1,925	3,480		BB+S
T19.01.49	Variations - Section 6	2,071	2,071	2,623	3,319		BB+S
T19.01.50	Variations - Section 7	3,140	3,140	4,140	8,458		BB+S
T19.01.27	Variations - Unallocated to section	1,882	1,882	2,655	18,100		BB+S
T19.01.52	Variations - Princes Street	0	0	347	547		Utilities/ Other Infrastructure
T19.01.53	Variations - Line 1b Costs	3,200	3,200	3,200	3,200		Phase 1b payment to RSC
T19.01.27	Subtotal Variations / Changes	2,755	24,784	27,680	32,540	61,397	x
T19.01.28	Infraco contingency	(6,356)	(16,249)	147	370	414	Utilities/ Other Infrastructure
T19.01.55	Allowance for demolition of existing Leith Walk subst	56	56	56	50	200	BB+S
T19.01.56	Accommodation Works	761	761	612	1,000		BB+S
T19.01.57	PICOPS / COSS / Possession Protection Staff support v	655	655	280	450		BB+S
T19.01.58	Additional Crew Relief Facilities at Haymarket	148	148	15	140		BB+S
T19.01.60	Pumped surface water outfall at AB underpass (by de)	100	100	100	100		BB+S
T19.01.61	Relocation of Ancient Monuments	(0)	(0)	0	0		BB+S
T19.01.62	Extra over for revised alignment to Picardy Pl, York Pl	2,856	2,856	0	2,950		BB+S
T19.01.63	Extra over for major utility diversions Picardy Pl, York	3,000	3,000	0	1,000		BB+S
T19.01.64	Extra over for shell grip at junctions	319	319	156	800		BB+S
T19.01.65	Allowance for SP connections to new street lights and	115	115	50	115		BB+S
T19.01.66	UTC associated with the delivery of the alignment	2,400	2,400	1,050	4,214		BB+S
T19.01.69	Allowance for minor utility diversions	488	484	370	760		BB+S
T19.01.70	Archaeological Officer - Impact on productivity	406	406	0	406		BB+S
T19.01.71	UTC associated with the wider area impacts	1,973	1,973	504	1,091		BB+S
T19.01.74	NR compliant ballast	300	300	0	300		BB+S
T19.01.75	SP connections to the depot and IPR	1,061	1,061	0	1,385		BB+S
T19.01.76	SP connections to Phase 1a sub-stations	400	400	400	400		BB+S
T19.01.90	Pro sum balancing code	(98)	(98)	0	0		BB+S
T19.01.55-Subtotal Provisional sums		16,395	(1,288)	15,107	4,832	16,598	x
T19.01.29	Contingency (VE)	1,200	0	1,200	(0)	1,200	Utilities/ Other Infrastructure

T19.01.31	0	1,000	(1,000)	0	0	0	Utilities/ Other Infrastructure
T19.01.32		Provisional sum saving	(350)	0	(350)	0	Utilities/ Other Infrastructure
T19.01.33		Tapered poles	176	0	176	0	Utilities/ Other Infrastructure
T19.01.34		Power for commissioning	1,030	0	1,030	97	Utilities/ Other Infrastructure
T19.01		Subtotal Infraco main works	241,437	22,496	263,933	138,652	299,300
T19.04.01		Advanced purchases	(0)	(0)	(14,359)	(0)	x
T19.04		Subtotal Funding adjustment	0	(0)	(0)	(14,359)	0
T19.02.02		Relocate historic monuments	42	(42)	0	0	0
T19.02.03		Environ. impacts - badgers	32	(2)	30	27	27
T19.02.04		Invasive species	300	(30)	270	254	268
T19.02		Subtotal advance works	374	(74)	300	280	295
T19.03.01		Unallocated	135	(1)	134	135	135
T19.03.02		Set up / mobilisation	180	0	180	180	180
T19.03.03		Phase 1 (150,000m3)	2,915	0	2,915	2,915	2,915
T19.03.04		Phase 2 (100,000m3)	2,210	0	2,210	2,208	2,208
T19.03		Subtotal depot advance works	5,439	(1)	5,438	5,438	5,438
T19.06.60	0		0	0	0	4,790	x
T19.06.01		Subtotal VE - infraco	0	0	0	0	4,790
T19.06.01		VE - Material recovery / reprocessing - M	(120)	0	(120)	0	(120)
T19.06.02		VE - Reduction in extent of road reinstat	(116)	0	(116)	0	(116)
T19.06.03		VE - Deferred Leasing	(2,961)	0	(2,961)	0	(2,961)
T19.06.04		VE - Network Reinforcement	(1,363)	0	(1,363)	(1,363)	(1,363)
T19.06.01		Subtotal VE - Non Infraco	(4,560)	0	(4,560)	(1,363)	(4,560)
T19.06		Subtotal VE	(4,560)	0	(4,560)	(1,363)	230
T19.07.04		Power - Network reinforcement	1,580	0	1,580	1,580	1,580
T19.07.05		Ticket machines	750	0	750	141	750
T19.07.06		IPR2 contingency	300	0	300	300	300
T19.07.08		Murrayfield modifications	940	223	1,163	1,175	1,186
T19.07.10		Office land rental	210	0	210	188	313
T19.07.11		Leith goods yard	56	0	56	80	80
T19.07.12		Traffic management design	400	0	400	76	400
T19.07.17		Burnside Road - Construction Costs	1,611	1,011	1,594	1,564	1,564
T19.07.18		Burnside Road - BAA Costs	349	349	415	415	415
T19.07.19		Burnside Road - Consultancy Costs	215	215	200	200	200
T19.07.20		Burnside Road - Other Costs	330	330	4	247	247
T19.07.21		BAA MUDFA - Construction Costs	445	445	440	440	440
T19.07.22		BAA MUDFA - BAA Costs	119	119	144	144	144
T19.07.23		BAA MUDFA - Consultancy Costs	155	155	117	117	117
T19.07.25	0		0	0	1,610	0	0
T19.01.08		Subtotal non infraco works	3,570	4,113	7,683	8,236	7,735
T19.07.26		SW Global Resourcing	0	0	442	792	792
T19.07.27		Stray Current Monitoring	111	111	136	156	156
T19.07.28		Manhole at Balbirnie Place (Frontline cost)	45	45	215	219	219
T19.07.29		SGN Gas main laymarket	36	36	48	48	48
T19.07.30		Crash Gate 10	0	0	175	175	175
T19.07.31		Constitution Street - Mock-up	0	0	46	46	46
T19.07.32		SGN Gas diversion	302	302	562	562	562
T19.07.33		MUDFA scoped side entry manholes	618	616	623	616	616
T19.07.35		Section 1a Utilities	3,099	3,099	3,399	3,399	3,399
T19.07.36		Clancy Docwa Utilities Works	1,452	1,452	5,484	5,484	5,484
T19.07.37		Section 5C Edinburgh Park Clancy	215	215	257	257	257
T19.07.38		Mars Barior Costs	200	200	385	401	401
T19.07.39		Baltic Street	13	13	0	1,200	1,200
T19.07.40		South Gyle - Sewer Diversion	852	852	852	852	852
T19.07.41		Visirail / Rubber Kerbs	774	774	774	774	774
T19.07.42		SUC Costs - from MUDFA	763	763	650	650	650
T19.07.43		SUC Betterment - from MUDFA	(458)	(458)	0	(380)	(380)
T19.07.45		Trial Holes - S. Gyle	0	0	70	70	70
T19.07.46		Bus Tracker Work	0	0	45	45	45
T19.07.47		POI HA Temp Retention Works	100	100	100	100	100
T19.07.48	0		160	160	0	0	0
T19.07.26		Subtotal non infraco changes	0	8,302	8,302	14,166	15,496
T19.07.09		Fuslink alternative	491	491	549	549	549
T19.07.13		Ancient monuments	90	90	175	175	175
T19.07.14		TM cycle integration study	18	18	20	20	20
T19.07.15		Siemens out of hours monitoring	100	100	80	100	100
T19.07.09		Subtotal non infraco Provisional Sums	0	785	785	823	843
T19.07		Subtotal Non Infraco works	3,570	13,119	16,649	23,227	24,074
T19		Total Infraco	246,259	35,541	281,800	151,875	329,337
T20.01.01		Prelims	0	0	0	0	0
T20.01.03		Approval of preliminary design	1,108	(2)	1,101	1,101	1,101
T20.01.05		Approval of final design / mock up	1,654	(9)	1,651	1,651	1,651
T20.01.07		Commencement of tram works	9,703	(16)	9,687	9,687	9,687
T20.01.08		Completion 1st set bodyshells	3,309	(5)	3,302	3,302	3,302
T20.01.09		Completion 1st set bogies	3,309	(5)	3,302	3,302	3,302
T20.01.10		Completion 1st tram assembly	3,309	(5)	3,302	3,302	3,302
T20.01.11		Completion factory based type testing	3,309	(5)	3,302	3,302	3,302
T20.01.12		Delivery of preliminary tram maintenance	3,309	(5)	3,302	3,302	3,302
T20.01.13		Delivery of spares	1,108	(2)	1,101	1,101	1,101
T20.01.14		Delivery of final documentation	1,108	(2)	1,101	0	1,101
T20.01.15		Delivery of special tools	551	(1)	550	0	550
T20.01.16		Completion of driver training	551	(1)	550	0	550
T20.01.17		Completion of maintainer training	551	(1)	550	0	550
T20.01.18		Completion of integrated system testing	551	(1)	550	0	550
T20.01.19		Commencement of shadow running	551	(1)	550	0	550
T20.01.20		Opening for passenger service	551	(1)	550	0	550
T20.01.21		Supply chain mobilisation	11,021	0	11,082	11,075	11,082
T20.01.23		Delivery of trams	4,521	(5)	4,516	4,074	4,516
T20.01.24		Testing and commissioning	4,521	0	4,521	0	4,521
T20.01.25		Advance maintenance mobilisation	2,275	(317)	1,958	847	1,958
T20.01.26		Depot equipment	740	318	1,057	665	1,057
T20.01.27		Variations / changes	338	338	378	378	378
T20.01.28		Contingency	0	0	9	0	0
T20.01		Subtotal Tramco main works	58,145	339	58,484	47,458	58,534
T20		Total Tramco	58,145	339	58,484	47,458	58,534
T44.01		Specified risk	30,336	(37,170)	(6,834)	0	0
T44.02		Contingency	0	9,794	9,794	0	0
T44		Total Risk	30,336	(27,376)	2,960	0	0
T99.01		Miscellaneous	288	(30)	236	169	233
T99.02		Previous years	3,093	0	3,093	3,093	3,093
T99		Total Miscellaneous	3,389	(30)	3,329	3,262	3,326
T999		Total	512,017	32,983	545,000	405,954	611,696

All BB+S AFC's and scope captured within Total Inf & Vehicles
CAF costs included in Vehicles elements
To confirm that £28.7m → £8m post-£2m risk incl. 1b (£3m)
Ok - phase 1b as noted
Add tax Write off E2961k, add E3m (const contingency)
Total Project costs (see Project Costs Note sheet)
Included in latest AFC

All BB+S AFC's and scope captured within

132,328	290,138
47,458	58,534
32,730	34,219
3,200	3,200
95,208	84,164
74,156	89,679
35,234	36,973
(14,359)	0
0	0
0	4,790
0	0
405,954	611,696
0	0

BB+S
CAF
SOS
Phase 1b payment to BSC
Utilities/ Other Infrastructure
Project Costs
Other Costs/ Inc Land
Advanced Payments
Risk Adjustments
VE not achieved
Risk Adjustments

Sub-total

Pitchfork 2 - Project Costs

Design and re-procurement
 Commencing work/off street
 On street/SD
 On street/remaining

Extract from P7 Consolidation									
	Cum COWD	P7	PCB	App'd changes	CAB	P7 AFC	P11 AFC	Option 3C	AFC
	P11	COWD							
T01.01	29,908	421	28,898	523	27,221	35,244	35,206	36,795	
T01.02	449	0	466	(0)	466	466	466	466	
T01.03	348	3	356	(0)	356	366	366	366	
T01.04	5,059	56	5,581	0	5,581	5,595	5,595	5,595	
T01.05	3,142	34	3,109	0	3,109	4,241	4,241	3,835	
T01.06	2,709	49	2,172	(0)	2,172	3,465	3,465	3,482	
T01.08	197	0	197	0	197	197	197	197	
T01.09	25	0	25	0	25	25	25	25	
T01.10	84	0	84	0	84	84	84	84	
T01.11	154	0	268	(83)	185	248	248	251	
T01.13	334	0	0	643	643	580	580	552	
T01.14	4,484	199	0	2,985	2,985	4,000	4,866	2,133	
T01.15	22	0	0	0	0	302	302	302	
T01	46,913	761	38,955	4,069	43,024	54,815	55,643	53,884	
T02	2,679	17	7,631	0	7,631	7,631	7,631	7,631	
T03.01-19	3,503	11	2,862	392	3,255	3,554	3,591	3,545	
T03.20-35	2,843	2	2,922	(111)	2,812	2,853	2,870	2,731	
T03	6,347	13	5,785	281	6,066	6,407	6,461	6,275	
T06.01-03	10,886	31	9,508	1,009	10,517	11,021	11,343	10,652	
T06.03a	2,183	42	1,168	1,011	2,180	2,296	2,379	2,164	
T06	12,868	73	10,676	2,020	12,696	13,287	13,722	12,817	
T12.01-12	2,110	19	1,902	273	2,175	2,425	2,434	2,411	
T12.13-22	728	1	624	113	737	742	742	724	
T12	2,838	20	2,526	386	2,912	3,166	3,176	3,134	
T13	2,511	10	2,723	74	2,797	3,046	3,046	3,720	
T0199	74,156	695	69,297	8,830	76,127	89,353	89,679	87,482	

74,156

89,679

Cumulative to date	
	Cum to terminate
	29,906
	449
	346
	5,059
	3,142
	2,709
	197
	25
	84
	154
	334
	4,484
	22
T01	46,913
	2,679
	3,503
	2,843
	6,347
	10,686
	2,183
	12,868
	2,110
	728
	2,838
	2,511
	74,156

74,156

Post termination in the Terminate & Reprocure Option									
	4m to Jun 11	6m to Dec 11	2012	2013	2014	2015	2016	2017	Post terminate
	2,678	1,171	2,174	2,174	681	681	681	681	10,921
	0	0	0	0	0	0	0	0	0
	224	196	364	364	73	73	73	73	1,438
	138	119	221	221	44	44	44	44	873
	195	171	317	317	159	159	159	159	1,636
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	300								300
	3,231	1,656	3,076	3,376	957	957	957	957	15,169
	68	118	390	3,000		1,000		407	4,963
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	333	500							833
	0	0	0	0	0	0	0	0	0
	292	265	95	95	95	95	95	95	1,116
	0	0	0	0	0	0	0	0	0
	80	141	261	261					743
	41		12	337					390
	4,045	2,671	3,834	7,069	1,052	2,052	1,052	1,459	23,234

Increase to expected total 97,389

Staff Costs	Count
Payroll:	
Finance/ICT	10
Comms/Stakeholder	12
Exec/Secretarial/Admin	8
Project	45
Total	76
"Contractors":	
Comms/Stakeholder	1
Project	10
Total	11
Per 4wk period	87

33	33	33	33	15	15	15	15)
24	24	24	24)
36	36	36	36	9	9	9	9)
59	59	59	59	24	24	24	24)
152	152	152	152	47	47	47	47	
3	3	3	3					
13	13	13	13	5	5	5	5	
16	16	16	16	5	5	5	5	
167	167	167	167	52	52	52	52	

Simple modelling based on % of current costs. Assumes comms/stakeholder costs all part of operating costs from OFRS to SAS from which further step-down in resources allocated to Capex. Implicitly assumes no salary increments or bonus throughout.

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COMMERCIALLY SENSITIVE - FOISA EXEMPT

Airport to St Andrews Square

	Base Cost	Notes	Risk		Description
			Low	High	
Phoenix (BSC Only)	377.4	1		77	High side Risk and Exclusions
				454.4	
Separation	624.1		Low	High	
			43.2	33.2	Add Back Premium (+ 10 for subbies)
				50	Settlement Risk
			6	6	High Side Design and Professional Costs
			22	43	Bad Project Risk (High Side Risk c30% of AIR - SAS Reprocure) low view (15%)
			10	25	Siemens Risk on Systems Reprocurement
			15	25	Inflation Risk (5% of contract value of work to do over 3 years)
			720.3	806.3	
Attrition	867	2			There is an "x" number on this scenario that is very hard to quantify as a result of on going dispute, legal and delay costs.
				867	

- 1. tie low side view as base point
- 2. Deck chair tie default scenario (High)

Agreed In Principle
 Area of disagreement - between CEC advisors and tie
 Agree to Agree, the numbers are highly variable

Airport - St Andrew Square - CAF Re-Novate (CEC Proposal)
11/03/2011

	CEC (9/3/11) £m	BSC Counter (9/3/11) £m	CEC Counter 1 (9/3/11) £m	Note
BSC PPP	384.0	404.0	362.5	
TR Exclusions	80.0			
Airport to Haymarket (Infraco) (Current Contract Arrangements)	304.0	404.0	362.5	
Haymarket to St Andrew Sq (Target Cost/Pain Gain Share)	20.5		22.5	1
Infrastructure	324.5	404.0	385.0	
CAF	61.0	65.0	62.0	
Primary Risk	29.0	29.0		
Contingencies	25.0	25.0	30.0	2
Delay	25.0	25.0		
Total Budget "Final Account"	464.5	548.0	477.0	
Non BSC Costs to date	236.5	236.5	236.5	
Project Management Costs to go	30.0	30.0	30.0	3
	266.5	266.5	266.5	
Total Project Costs	731.0	814.5	743.5	
Less Agreed Funding			545.0	
GAP			198.5	

Note

1. Haymarket to St Andrew Square a variable item to be closed out in negotiations. The £22.5m is based on our original bottom up assessment. This includes 15% risk allowance and a sum for Siemens Materials now covered elsewhere.
2. Client contingency/risk pot to be refined. Based on Infraco terms and conditions for Phoenix containing no exclusions of clarifications.
3. Project Mgt costs to go assume no future recoveries by CEC Legal, Finance and Lothian Buses.
This sum to be reviewed and to be subject of a line by line analysis once project delivery arrangements are confirmed. This figure includes preparation for operations.
4. Minimise Capital Gap for presentational purposes but maximise for TS recovery

ETN Funding Options

11/03/2011

		Assumption
		CEC Only
Option	GAP	198.50
	£3m per annum from TEL Business (Factor of 14 - 30 year money) lease	53.76
	2 Infrastructure Provision in Budget	95.00
	3 CEC Revenue (£2.1m by factor of 14)	29.74
	4 Surplus Trams	20.00
	Funding Total	198.50
	GAP	0.00

	Assumption (50/50)	
	TS/CEC	Notes
GAP	198.50	
TS Contribution	99.25	
	53.76	This includes tax relief on lease charge
CEC Revenue (£3.2m by factor of 14)	45.49	
Funding Total	198.50	
	0.00	

Notes	1	2
Options to increase the revenue contributions from TEL and reduce the LB dividend payment to the Council by up to £3m per annum with potential tax saving of £840k. (Potential issue with Minority Shareholders)		Further options to reduce capital lump sum contribution and replace with revenue related to leasing of assets or sale to infrastructure fund but likely to lead to increase in net revenue impact.

Notes	1
Lease the rest of the tram fleet capital value £42m revenue cost £4.2m could come as revenue grant from Transport Scotland reducing their capital contribution to £57.2m.	

ETN Funding Options

14/03/2011

	Assumption (50/50)	
	TS/CEC	Notes
GAP	198.50	
TS Contribution - based on 50% of Funding Gap	99.25	
£1.5 per annum from TEL Business Plan Revenues (30 years)	26.88	Includes Tax Relief on Lease Payments
CEC Revenue (£5.2m by factor of 14)	72.37	
Funding Total	198.50	
GAP	0.00	

ETN

Phase 1a - Airport to St Andrew Square

11/03/2011

	£m
Total Project Cost	741.8
10 additional trams	20
	721.8
Lease remaining fleet	42
	679.8
Phoenix Cost to Newhaven to be reviewed	(x)
	679.8(x)
All Newhaven Costs incurred	
Utilities	9.7
Infrastructure	(x)
Land	5
	665.1(x)

Note

Tension in reducing the project costs for presentation reasons, this dilutes our case for financial support from TS



REPORT ON CERTAIN ISSUES CONCERNING EDINBURGH TRAM PROJECT – OPTIONS TO YORK PLACE

~~21-24~~ June 2011

Privileged and confidential – prepared in contemplation of litigation
FOISA exempt

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1 **Executive summary**

1.1 This report addresses the principal options available to tie/CEC in connection with the future of the Edinburgh Tram Network, and the entitlement which Infraco might have for payment in connection with those options.

1.2 One of the options available to tie/CEC is to enter into the Settlement Agreement in relation to which certain principles were agreed at the mediation which took place at Mar Hall in March 2011 and in relation to which negotiations remain ongoing.

1.3 The other options are dependent on the reasons for which the Settlement Agreement is not entered into:

(a) In the event that the Settlement Agreement is not entered into for reasons associated with funding, the Infraco Contract will terminate automatically. This would leave tie/CEC free to proceed with another contractor if that was to be considered appropriate;

(b) In the event that the Settlement Agreement is not entered into for reasons other than those associated with funding, then the Infraco Contract will remain in place, unless grounds for termination can be identified. The termination provisions in the Infraco Contract are open to interpretation; in particular, there is a risk of parties remaining locked in to that contract.

1.4 A chart showing the various options is at page 9 of this report.

1.5 The approach taken to the assessment of the options in this report is to arrive at the prudent assessment that should be made in relation to tie/CEC's exposure for the purposes of carrying out a comparison of the consequences of adopting the various options identified.

1.6 This does not involve arriving at a definitive view of the value and merits of each head of Infraco claim; that could only be achieved following detailed factual, legal and expert analysis. Instead, the approach that has been taken is to build up the commercial components of the various options in order to arrive at a working comparison between them.

1.7 The outcome of this exercise does not represent the starting point that would be adopted in the context of any negotiations with Infraco, nor does it necessarily reflect the approach that would be taken in the context of any formal dispute resolution proceedings. It provides a context in which to examine a number of potential options in order to provide a basis of comparison between them.

- 1.8 [Text in relation to Settlement Agreement to be included.]
- 1.9 The starting point for considering the options other than the Settlement Agreement is in relation to tie/CEC's exposure in the event of separation following automatic termination: this exposure contains a number of building blocks which have each been considered in turn.
- 1.10 In summary, these building blocks have been approached in an order of decreasing certainty:
- (a) Infraco's entitlement to payment in respect of work, excluding any element of change, which has been carried out up to the date of separation, by reference to fully and partially completed Construction Milestones stipulated in the Infraco Contract, as well as sums agreed to be paid in terms of MOV4. There is relatively little controversy in relation to this category;
 - (b) The value of the many disputed changes to the Infraco Works, by reference to work actually carried out by Infraco at the point of separation. Within this category are different elements which again appear in order of decreasing certainty – the most certain being those elements of change where both principle and quantum have been agreed, the least certain being those where there is a dispute in principle between the parties, and Infraco has significant claims for additional payment which require to be resolved.
 - (c) The entitlement of Infraco to an extension of time. In broad terms, it is considered that Infraco is likely to be successful in securing an extension of time which would take it to the point of separation.
 - (d) Of critical importance is the consequent additional cost caused by delay, the value of which is difficult to predict with any degree of certainty. What ought to be the case, however, is that Infraco ought not to be entitled to recover both preliminaries and additional cost caused by delay in relation to the same period, as that would lead to a double recovery.
 - (e) On the basis of the foregoing approach, Infraco would be entitled to recover preliminaries until 31 March 2011 in terms of Schedule part 5 of the Infraco Contract. From that point until 1 September 2011, Infraco would be entitled to recover preliminaries in relation to the Prioritised Works in terms of MOV4. Infraco ought not to be entitled to recover additional cost caused by delay during this same period, other than to the extent that resources have had to increase during.

That thickening of resources is addressed by percentage increases of 7.4% and 17.5% agreed between tie and Infraco to be paid on the value of change.

(f) Infraco was paid a mobilisation, ~~or advance~~, payment of £45.2m at the outset of the contract. The Infraco Contract is silent in relation to what is to happen to this money in the event of an early termination; there is some force to the proposition that some of this money falls to be returned to tie in this event. However, it is not straightforward to arrive at a formulation of the way in which this repayment should be calculated.

(g) If the ETN is to be delivered to York Place, another contractor will require to be engaged to complete that work once Infraco is removed from the equation. tie has produced an assessment of that figure.

(h) There are other components to tie/CEC's exposure, including payment to CAF, and the legal/internal costs associated with any dispute(s) about the extent of Infraco's entitlement.

1.11 In the event that the Infraco Contract remains in place (because the Settlement Agreement is not entered into for reasons other than those associated with funding), tie/CEC's exposure will encompass all those matters referred to in the foregoing paragraph, *plus* a number of other factors, including the following:

(a) Infraco claims in relation to change *etc* in relation to work which has not yet been carried out;

(b) The costs associated with Infraco completing the work to York Place under the Infraco Contract, with the existing risk profile, including any claims which arise in relation to that work;

(c) Assuming that the project is only to continue to York Place, Infraco may be entitled to recover the profit that it would have earned in relation to the omitted section from York Place to Newhaven.

1.12 If the Infraco Contract remains in place, it may be open to tie to seek to terminate the contract. Amongst other things, that will require tie to establish that an Infraco Default has occurred. If the termination is challenged by Infraco, that is likely to result in lengthy and complicated legal proceedings. If tie is ultimately unsuccessful in those proceedings, the parties would remain locked in to the Infraco Contract at the end of the proceedings.

- 1.13 At Appendix 1 of this report are spreadsheets which pull together the conclusions reached in this report on the basis of the figures which have been produced by tie in relation to the various options identified.

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2 Key principles

2.1 This report addresses the principal options available to tie/CEC in connection with the future of the Edinburgh Tram Network, and the entitlement which Infraco might have for payment in connection with those options.

2.2 It was envisaged at Mar Hall, and reflected in MOV4, that the Settlement Agreement would deliver a tram network as far as York Place. In order properly to compare like with like, the options have been explored on a similar basis, namely delivery of a tram network as far as York Place – whether that be executed by Infraco, or by some other contractor. Accordingly, the costs that would be involved in another contractor completing the work as far as York Place have also been taken into account. The report does not consider any issues extraneous to Infraco's entitlement, or the costs of another contractor to complete as far as York Place¹.

2.3 Following the mediation which took place at Mar Hall in April 2011, agreement was reached in relation to the broad basis upon which Infraco might proceed to complete the ETN as far as York Place. It is envisaged that if that new basis is taken forward, it will be incorporated in the Settlement Agreement. Amongst other things, it is intended that the Settlement Agreement would sweep away the existing issues and disputes which divide the parties, re-basing the contractual and commercial relationship, as well as making provision for the network to be delivered as far as York Place.

2.4 If the Settlement Agreement is not entered into, the many issues which divide the parties remain to be resolved.

2.5 The approach to these matters which has been taken in this report is to arrive at the prudent approach that should be taken to Infraco's entitlement, and the other exposure which tie/CEC might have, in the event that the Settlement Agreement is not entered into. This is done in order to identify potential risk in relation to various building blocks that have been identified as the components of the various options which include the Settlement Agreement, as well as cancellation of the project. The options are outlined in section 3 of this report.

2.6 This approach does not involve a definitive view on the merits of each head of Infraco claim, nor advice on the relative prospects of success. That could only be achieved following detailed factual investigation, the obtaining of expert evidence where appropriate, and further legal analysis.

¹ For example, any cost consequences which arise from the options referred to in this report in relation to third party agreements have not been considered.

- 2.7 In order to identify the potential commercial implications of the building blocks referred to above, tie has been asked to produce a series of figures using the building blocks as a structure for doing so, and those figures have been referred to in this report. tie has also been given the opportunity to comment on the incorporation of its figures into this report. Where appropriate, commentary has been made in this report on the approach taken by tie; however, the figures have been assumed to have been correct for the purposes of this report.
- 2.8 In relation to the evaluation of change, in the absence of any independent third party verification of tie's figures, a mid point has been taken between the tie figure and the Infraco figure in order to take a prudent account of the risk to tie/CEC. It is likely that the figures advanced by Infraco are high, based on Infraco's most optimistic approach to what its entitlement might be. This approach is not based on any scientific or definitive prediction of the sums which Infraco might recover. That could only be achieved by the detailed factual, expert and legal analysis referred to above. Instead, it represents a notional reduction. However, it is understood from tie that in the cases where the value of tie Changes has been agreed with Infraco, it has been on an average of 50 – 55% of the sums initially set out by Infraco in their first formal Estimate.
- 2.9 In relation to a number of the key issues which have been examined, the position which Infraco will take is not known. In the absence of any insight into the position which Infraco will take, nor the figures which they are likely to adopt, it is difficult to forecast the commercial outcome between the parties. It is only when Infraco's position is set out by them with any particularity that a more definitive approach can be taken in relation to the merits of their position.
- 2.10 The figures which have been utilised for this analysis in no way represent the starting point that would be adopted in the context of any negotiations with Infraco, nor do they necessarily reflect the approach that would be taken in the context of any formal dispute resolution proceedings. The aim of utilising certain figures is to provide a context in which to examine a number of potential options in order to provide a basis of comparison between them.

3 Options considered in this report

3.1 Broadly, the options available can be categorised as (on the one hand) the Settlement Agreement, and (on the other) the options other than the Settlement Agreement.

3.2 The way in which these other options play out depends on the reasons for which the Settlement Agreement has not been entered into: if the Settlement Agreement is not entered into for reasons associated with funding, then the Infraco Contract automatically terminates. If the reason is something other than the lack of availability of funding; then the Infraco Contract remains in existence.

3.3 On page 9 of this report is a schematic representation of the various options, which can be summarised as follows:

3.4 **Settlement Agreement entered into:** parties reach consensus on, and enter into, an agreement which revises the existing Infraco Contract in such a way as to realign the existing risk profile, provide greater price certainty, sweep up all existing disputes, and deliver the project as far as York Place with a completed design to Newhaven and materials purchased via MOV4. Parties remain in discussion in relation to the Settlement Agreement.

3.5 **Settlement Agreement not entered into for reasons associated with funding:** if the Settlement Agreement is not entered into on or before 1 July 2011² because tie and/or CEC do not have sufficient funding to meet tie's obligations, the Infraco Contract will terminate automatically on 1 September 2011 on a "no fault" basis – in other words a separation. In that situation, Infraco would be entitled to recover payment for work carried out to date. Any claims already accrued (for example, claims for extensions of time associated with utilities) would require to be met. If the project was to be delivered to York Place, another contractor would require to be appointed to complete the outstanding work.

3.6 **Settlement Agreement not entered into for reasons other than funding:** if the Settlement Agreement is not entered into on or before 1 July 2011 for reasons other than the availability of funding, there would be two principal options:

- (a) **Continue with the Infraco Contract under existing terms, omitting York Place to Newhaven:** under this option, work would proceed with Infraco under the existing Infraco Contract³. The potential exposure on the part of tie/CEC would include all the elements referred to above in relation to separation, as well as a number of other components, such as the entitlements that Infraco would have in

² This date could be extended by agreement between the parties

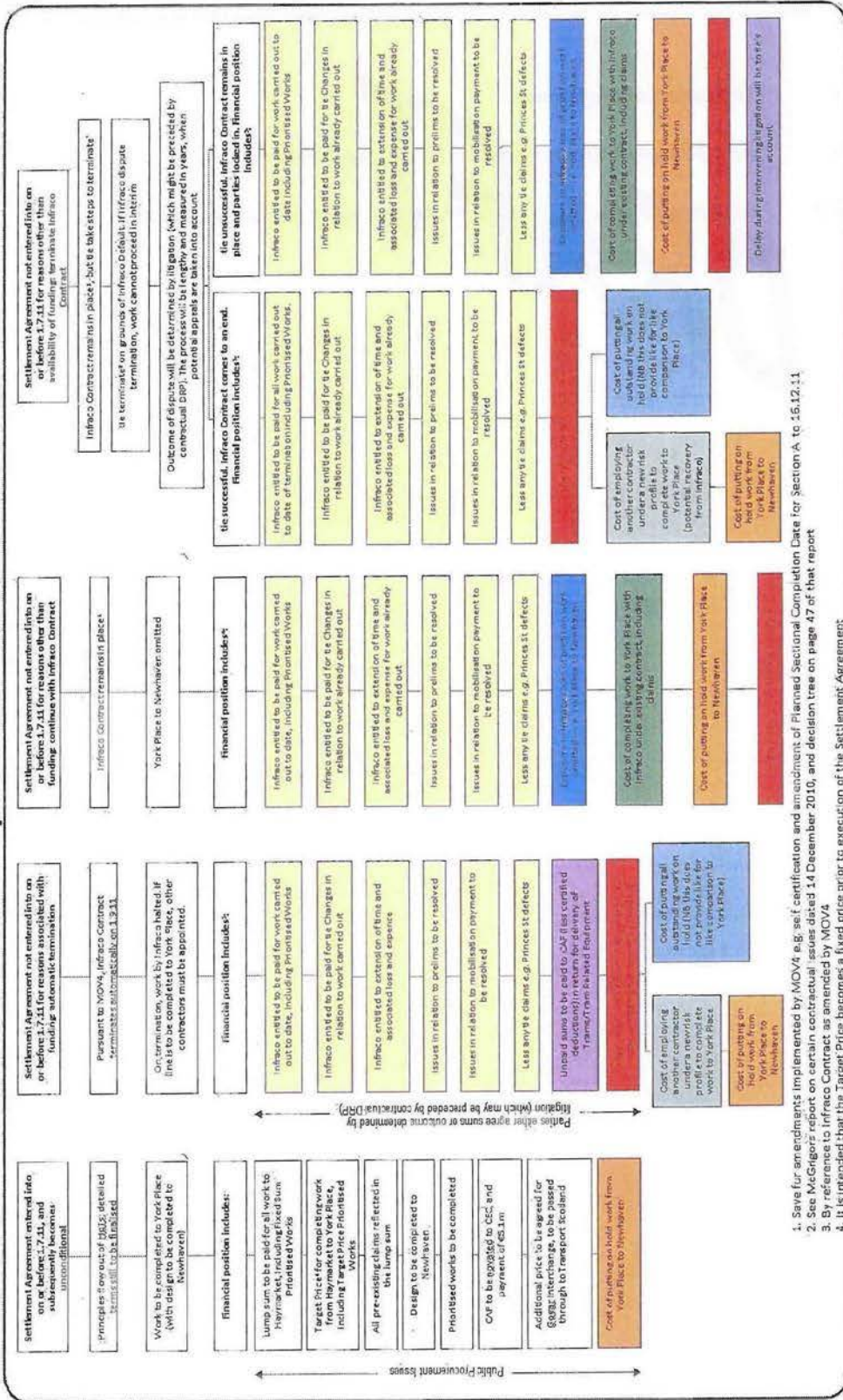
³ Subject to some changes introduced by MOV4, considered in more detail in section 6 below

terms of the work still to be completed, and potential loss of profit on work from York Place to Newhaven.

- (b) **Seek to terminate the Infraco Contract on grounds of Infraco Default:** the exposure of tie/CEC would potentially include the matters referred to above, as well the prospect that parties might remain locked in to the Infraco Contract after a lengthy dispute process if the termination is challenged by Infraco.

3.7 Each of these options is addressed in more detail in sections 4 to 18 below.

Options to York Place



1. Save for amendments implemented by MOVA e.g. self certification and amendment of Planned Sectional Completion Date for Section A to 16.12.11
2. See McGrigors report on certain contractual issues dated 14 December 2010, and decision tree on page 47 of that report
3. By reference to Infraco Contract as amended by MOVA
4. It is intended that the Target Price becomes a fixed price prior to execution of the Settlement Agreement

4 **The Settlement Agreement**

4.1 *[The Settlement Agreement remains under negotiation.]*

4.2 Separate advice has been given in relation to public procurement issues.

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5 Separation

5.1 The options available in the event that the Settlement Agreement is not entered into by the agreed deadline differ depending on the reasons why that agreement has not been entered into. This section of the report deals with the situation where the reason why the Settlement Agreement has not been entered into is associated with funding. In that event, there will be automatic termination, or separation.

5.2 In high level terms, the consequences of separation will include the following (addressed in more detail below):

- 1) Work by Infraco will halt on termination;
- 2) Infraco will be entitled to be paid for work carried out to date, including Prioritised Works;
- 3) Infraco will be entitled to be paid for tie Changes in relation to work carried out;
- 4) Infraco will be entitled to an extension of time in relation to delay for which tie bears contractual responsibility;
- 5) Infraco will be entitled to recover the additional cost caused by delay, subject to the issues which arise in relation to the treatment of preliminaries;
- 6) Issues in relation to mobilisation payments will require to be resolved;
- 7) Unpaid sums are to be paid to CAF (less certified deductions) in return for delivery of Trams and Tram Related Equipment;
- 8) Any claims which tie has against Infraco will require to be taken into account (for example, in relation to the defects at Princes Street);
- 9) Legal and internal costs in the event that the extent of Infraco's entitlement cannot be agreed;
- 10) The cost of employing another contractor to complete the work to York Place (and to put on hold the work from York Place to Newhaven);
- 11) Alternatively, the costs of putting the project on hold immediately following termination, without any further substantive work being carried out but taking into account legal and third party obligations.

6 **The provisions of MOV4 in relation to separation**

6.1 The provisions in relation to automatic termination, or separation, are to be found in MOV4. Clause 3.3 deals with the situation where:

"If on or before 1 July 2011 the Parties have not entered into an MOV5 on an unconditional basis or on a conditional basis in either case because tie and/or CEC do not have sufficient funding to meet tie's obligations under the Infraco Contract..."

6.2 If the factual situation is as envisaged by clause 3.3, then a number of consequences flow:

- (a) The Infraco Contract automatically terminates on 1 September 2011. The consequences of this are addressed below;
- (b) Infraco continues to carry out the Prioritised Works until 1 September 2011 – subject to tie having the option (before 2 July 2011) to confirm whether the Princes Street remedial works should proceed or not during the July – September 2011 period;
- (c) Infraco does not carry out any further work other than the Prioritised Works;
- (d) The three outstanding payments totalling £13m to be made in terms of clauses 8.1 to 8.3 still require to be made⁴. The payments of £27m and £9m provided for in clauses 6 and 7 have already been triggered.

Automatic termination

6.3 Clause 3.3.3 of MOV4 provides that the Infraco Contract will automatically terminate on 1 September 2011, and

"...the Parties shall have no rights or obligations in respect of the future performance of the Infraco Works save as provided in Clause 94.6 of the Infraco Contract."

6.4 The automatic nature of this termination ought to mean that the provisions of the Infraco Contract that carry with them a risk of parties being "locked in" no longer have efficacy: there ought not to be any debate in relation to whether the Infraco Contract has been terminated, but only in relation to what the entitlements of the parties are once that termination has occurred.

⁴ By 27 July 2011 and 24 August 2011 respectively, or in each when a Vesting Certificate has been produced by Siemens in relation to Materials and Equipment if that is later.

- 6.5 The difficulties associated with termination under the Infraco Contract (as opposed to automatic termination under MOV4) are addressed in section 20 of this report, and in the McGrigors LLP Report on Certain Issues Concerning Edinburgh Tram Project dated 14 December 2011.
- 6.6 Clause 94.6 of the Infraco Contract provides that certain obligations in the Infraco Contract survive termination. These include the following:
- (a) Clause 67 – payments in respect of Applications for Milestone Payments;
 - (b) Clause 76 – required insurances;
 - (c) Clause 88 – termination or suspension for tie Default;
 - (d) Clause 90 – termination for Infraco Default;
 - (e) Clause 97 – Dispute Resolution Procedure.
- 6.7 Clause 3.3.3 of MOV4 provides that:
- "The Parties shall enter into discussions with a view to arriving at mutually acceptable terms to deal with the consequences of termination..."*
- 6.8 Save as agreed by these discussions, clause 3.3 provides that:
- "...such termination shall occur on a no fault basis and, no compensation shall be payable by either Party whether under contract, delict (including negligence), breach of (or compliance with) statutory duty, restitution or otherwise as a result of such termination of the Infraco Contract."*
- 6.9 Taking these provisions together, it would appear that what is intended is that both parties will be entitled to recover entitlements which have accrued prior to the date of termination. These entitlements are dealt with in more detail below, but in summary:
- (a) In Infraco's case, this will include an entitlement to be paid in accordance with the Infraco Contract for all work which has already been carried out (including the Prioritised Works), together with an entitlement to make recovery for all claims which have already arisen in respect of work already carried out (for example delays associated with utilities).

- (b) In tie's case, this will include an entitlement in relation to defects in work already carried out. To the extent that there has been an overpayment in terms of the Infraco Contract, then this ought to be capable of being recovered.
- (c) Certain issues arise in connection with the mobilisation payment made to Infraco, and in relation to preliminaries.
- 6.10 The entitlement of the parties ought not to include for any payments under the Infraco Contract which arise as a consequence of "fault": accordingly, any provisions of clause 88 (termination for tie Default) and clause 90 (termination for Infraco Default) which arise only as a consequence of the default of one or other of the parties ought not to apply⁵, nor will any common law entitlement to damages for wrongful termination arise.
- 6.11 By way of example, clause 88.8.5 provides for Infraco to recover loss of profit in the event that the contract is terminated for tie Default⁶. There ought to be no entitlement on Infraco's part to recover loss of profit in the event of automatic termination.
- 6.12 On the same analysis, tie will not be entitled to make recovery of matters such as the "extra over" cost associated with engaging another contractor to complete the works which Infraco is no longer to carry out⁷.

⁵ Although see the comments below at section 12 in relation to the mobilisation payment

⁶ Clause 88.8.5 is very difficult to interpret – it refers to loss of profit being "*calculated with reference to demobilisation costs*". See paragraph 10.8 of McGrigors Report on Certain Issues Concerning Edinburgh Tram Project dated 14 December 2010

⁷ This arises from clause 90.14 of the Infraco Contract, subject to the cap on liability in clause 77.7. See section 9 of McGrigors' report of 14 December 2010

7 **Separation - Infraco's entitlement to be paid for work carried out (excluding change)**

7.1 The core of Infraco's entitlement to be paid for work carried out to date will consist of the Construction Milestones⁸ which have been achieved by them pursuant to clause 67 and Schedule Part 5 of the Infraco Contract, which provide for payment of specified sums in the event that the Construction Milestones have been completed⁹.

7.2 tie has approached this issue in two stages: the first is up to and including Certificate No. 42, which was the last Certificate issued under the Infraco Contract immediately prior to the mediation. The second is Certificate No. 43, which takes into account the payments which have fallen due for certification in terms of MOV4.

7.3 There are two components to this entitlement:

- (a) Construction Milestones which have been completed;
- (b) Construction Milestones which are only partially complete.

7.4 As at Certificate No.42, tie had certified the following sums in respect of completed Construction Milestones as having been completed:

BB	£17,178,733
Siemens	<u>£3,420,545</u>
	£20,599,278

7.5 In addition, milestones have been certified in respect of maintenance, trams and SDS as follows:

CAF	£46,996,608
Maintenance	£267,344
SDS	<u>£6,032,000</u>

⁸ There are no values attached to the Critical Milestones in Schedule part 5, and they are therefore not relevant here

⁹ As well as the exercise referred to in this report, further assessments have been carried out based on bills of quantities prepared by Cyril Sweett. These bills address all the work which has been carried out, and do not distinguish between work which was part of the original Infraco work scope, and that work which constitutes change. tie have valued the bills on the basis of the rates contained in schedule part 4, and Cyril Sweett have valued them on the basis of market rates, and it is understood that these two exercises produce outcomes which broadly correlate with each other (within a range of c. 5%). However, it is unlikely that this would be considered to be the correct approach. Firstly, the Infraco Contract contains a milestone mechanism, and there is no proper basis in the contract for abandoning that approach. Secondly, Schedule part 4 contains rates for valuing change. It is not intended to apply to work which was part of Infraco's original work scope.

£53,295,952

- 7.6 Accordingly, the total sum certified by tie in relation to these milestones is £73,895,230.
- 7.7 Infraco's position in relation to these milestones achieved as at Certificate No. 42 is that the sum of £75,717,171 should have been certified. It is understood from tie that the difference between tie and Infraco of £1.822m is principally accounted for by a dispute in relation to whether certain Construction Milestones have been completed by the relevant date or not. In the event of a dispute, this issue would require to be resolved by way of factual witness evidence, and possibly also evidence from an expert quantity surveyor.
- 7.8 For present purposes, the approach that has been adopted has been to take a mid point between tie and Infraco's disputed figures¹⁰, as referred to at section 2 above. The disputed element is £1.822m. 50% of £1.822m is £0.911m. Accordingly, the revised total is £74.816m.
- 7.9 Further sums have been certified since Certificate No.42, namely the following:
- | | |
|--------------------|-------------------|
| MOV4 Certificate 1 | £27,000,000 |
| MOV4 Certificate 2 | £9,000,000 |
| Certificate No. 43 | <u>£6,160,000</u> |
| | £42,160,000 |
- 7.10 There appears to be a difference between the sums applied for by Infraco in relation to the foregoing figures, and the sums certified, of approximately £6.72m. Of this, it is understood from tie that £5.156m will not be pursued by Infraco, as Infraco does not seek to recover any sums beyond those provided for by MOV4 in relation to these certificates, its applications being produced in such a way as to demonstrate that it is entitled to *at least* the sums certified. On this basis, it would appear to be appropriate to use the certified sums in analysing Infraco's entitlement.
- 7.11 Of the remaining amount of approximately £1.57m, it is understood that this relates to a dispute in relation to the extent to which work has been completed by Infraco. On the assumption that Infraco ought to have completed the relevant work by 1 September 2011 (when automatic termination would occur), Infraco's figure has been utilised in full.
- 7.12 If automatic termination occurs on 1 September 2011, the further sum of £13m will have fallen due for certification and payment in terms of MOV4.

¹⁰ It should be noted that this does not relate to a dispute in relation to value (as referred to in section 2 above, but in relation to progress. However, for consistency, the midway point has been adopted here as well.

- 7.13 Beyond this, MOV4 also provides for Infraco to be paid in relation to Prioritised Works; this entitlement arises from 31 March 2011 until 1 September 2011¹¹. This payment is calculated by reference to Fixed Sum and Target Price Prioritised Works Milestones. These Milestones include an element for completed work, and an element in relation to preliminaries.
- 7.14 If Infraco does not complete the Milestones in relation to physical work, it ought not to be entitled to payment in respect of the relevant Milestone¹². If it delays in carrying out the Prioritised Works, then the Certifier may make a reasonable assessment of the (Prioritised Works) preliminaries which are properly due to Infraco¹³.
- 7.15 It is impossible to predict whether Infraco will proceed to complete this work as envisaged by MOV4; however, for present purposes, it would be prudent to assume that it will do so, and provide for the cost of making the relevant payments to Infraco.
- 7.16 tie assess the likely cost in this respect to be as follows:
- Certificate 44: £2.010m – certified on ~~16 May 2011, but not yet paid~~ 15 June 2011, and due to be paid on 29 June 2011;
- Certificate Hg 3A: £334m – certified on 15 June 2011¹⁴, and due to be paid on 29 June 2011;
- ~~Certificate Hg 3A: £4.333m – certified on 15 June 2011¹⁴;~~
- Certificate 45 £1.965m – due to be certified 13 July 2011;
- Certificate Hg 3B: £4.333m – due to be certified 10 August 2011;
- Certificate 46: £2.395m – due to be certified 10 August 2011;
- Certificate Hg 3C: £4.333m – due to be certified 7 September 2011;
- Certificate 47: £2.415m – due to be certified 7 September 2011;
- Certificate 48: £ 2.065m - due to be Certified 5th October, so a 50% allowance made to 1 September 2011 of £1.033m.

¹¹ Clause 3.3.1 of MOV4

¹² Clause 9.2 of MOV4

¹³ Clause 9.8 of MOV4

¹⁴ Certificate 44 and Hg Certificate 3A have already been certified, and these sums therefore ought not to change. The subsequent certificates (45 and 3B) onwards are subject to certification by the Certifier

~~¹⁴ Certificate 44 and Hg Certificate 3A have already been certified, and these sums therefore ought not to change. The subsequent certificates (45 and 3B) onwards are subject to certification by the Certifier~~

Total: £22.817m

7.17 Turning next to partially completed Construction Milestones, tie's view is that the value of Construction Milestones commenced, but not completed, is £5,680,483 on the basis of calculations carried out by tie Project Managers and/or Quantity Surveyors. There is no figure available in relation to the view which Infraco might take in relation to the incomplete Construction Milestones. It is understood from tie that Cyril Sweett have assessed this incomplete work, based on Bills of Quantities which Cyril Sweett prepared, and their conclusions broadly coincide with those of tie.

7.18 Whilst work under the Infraco Contract remains ongoing, there is no provision for part payment to be made towards incomplete Milestones. However, the termination provisions contained in clauses 88 and 90 do appear to envisage that in the event that the Infraco Contract is terminated, payment will be made to Infraco on a basis which acknowledges the work which has actually been executed.

(a) Clause 88.8 addresses the consequences of a termination for tie Default, and provides that:

"tie...shall pay the Infraco...the value of all work carried out prior to the date of termination and in addition:

88.8.1 the amounts payable in respect of any preliminary items so far as the work or service comprised therein has been carried out or performed and a proper proportion of any such items have been partially carried out or performed."

(b) Clause 90.12 addresses the consequences of a termination for Infraco Default, and provides that:

"...the Parties shall agree..."

90.12.1 the amount (if any) which has been reasonably earned and not yet paid pursuant to this Agreement by the Infraco in respect of work actually done by it under this Agreement."

7.19 For the reasons explained above, where automatic termination occurs in terms of MOV4, it does so on a "no fault" basis: arguably this means that none of the provisions in relation to tie and Infraco Default (clauses 88 and 90 respectively) will apply. However, it is evident that both 88.8 and 90.12 envisage that, upon termination (irrespective of whether that termination was triggered by tie or Infraco Default), an exercise will be carried out whereby

the payment to which Infraco is entitled will be proportionate to the work actually executed by them. Accordingly, it would be prudent to proceed on the basis that Infraco will be entitled to recover the value of partially completed Milestones.

- 7.20 As referred to above, Infraco's assessment of what this figure should be is not available, and no independent cross check has been carried out in relation to tie's assessment. In the absence of other information, it is appropriate to use tie's figure with regard to Infraco's potential entitlement.

Summary in relation to work carried out

- 7.21 On the basis of the foregoing, the sums which ought prudently to be taken into account in relation to work carried out by Infraco, which fall to be paid to them in terms of the Infraco Contract and MOV4 are as follows:

Completed Milestones Certificate No. 42 ¹⁵	£74,816,000
Sums certified MOV4	£36,000,000
Certificate No. 43	£7,727,000
Sums to be certified per MOV4	£13,000,000
Prioritised Works	£22,817,000
Partially completed Construction Milestones ¹⁶	<u>£5,680,483</u>
	£160,040,000

- 7.22 These sums exclude any elements in relation to change, extension of time, additional cost caused by delay, preliminaries, mobilisation and so on, which are dealt with below.

¹⁵ Infraco claim figure in relation to Construction Milestones, trams, SDS and maintenance

¹⁶ tie assessment

8 Separation - change

8.1 There are a number of issues dividing the parties which arise out of Infraco's claims in relation to change. Prior to the mediation, Infraco claimed to be entitled to cease work as a consequence of its interpretation of a number of key contractual provisions, all of which interrelated to produce the situation where work had all but ground to a halt. These include:

- (a) The allocation of risk, in terms of time and money, in relation to the development of Design, and in particular the proper interpretation of Pricing Assumption No. 1. This in turn leads to Infraco's contention that it is entitled to refuse to progress work which is the subject matter of a dispute¹⁷ in relation to Pricing Assumption No.1;
- (b) The interaction of Clauses 65 (Compensation Events) and 80 (tie Changes) of the Infraco Contract;
- (c) Infraco's claim to be entitled to an extension of time and associated additional cost caused by delay in relation to MUDFA Works.

8.2 Upon separation, Infraco will be entitled to make recovery for tie Changes which it has carried out. To the extent Infraco has issued an INTC, the subject matter of which has not yet been commenced, Infraco ought not to be entitled to any payment therefor, save potentially in relation to the delaying consequences arising from the requirements set out in clause 80 in respect of each INTC. In other words, where an INTC has not been carried out prior to separation there may nevertheless be delay consequences pre separation which arise through the clause 80 mechanism for dealing with INTCs. Extension of time and Infraco's entitlement to additional cost caused by delay are addressed in section 9 below.

8.3 For the purposes of this report, INTCs have been categorised as follows:

- (a) **Agreed changes:** where tie and Infraco have reached agreement, both in principle and in relation to quantum, and the work has been carried out, then Infraco will be entitled to recover the sum which has been agreed upon separation. In some cases, this sum will already have been certified and paid. Once agreement has been reached in the way described (whether through the regular administration of the Infraco Contract, or through formal or informal mediation), neither party ought to be entitled to have that tie Change opened up again.

¹⁷ Or an unagreed Estimate

- (b) INTCs determined through adjudication:** where an adjudicator has issued a decision in relation to a tie Change, that decision will be binding on the parties unless and until the dispute is finally determined by legal proceedings or by agreement between the parties¹⁸. Accordingly, the outcome of the adjudications could be overturned at some later stage. In practical terms, however, it is prudent to use the decisions of the adjudicators as a starting point for assessing the risk associated with the subject matter of those disputes.
- (c) INTCs agreed in principle, but where there is a dispute in quantum:** in certain cases, tie accepts that a tie Change has occurred, but the difference between the parties lies in how that difference has been evaluated.
- (d) INTCs where there is a dispute in principle, as well as in quantum:** in these cases, tie will dispute that a tie Change has occurred. A number of these INTCs relate to the issue of design development in terms of Pricing Assumption No.1: where Infraco has refused to execute the purported change until that issue has been resolved, then the work in question will not have been commenced, and there ought not to be any recovery on Infraco's part, save in relation to the potential relaying consequences referred to at paragraph 8.2 above. Separately, tie has produced a secondary figure which is its assessment of the proper value of the work in question, should it be determined or agreed that a tie Change has, in fact, occurred.

8.4 tie has been asked to produce figures in relation to each of these categories, and each of these is addressed in turn below.

Agreed INTCs

8.5 These have been divided by tie into two categories:

- (a)** The first category is where there is no dispute between tie and Infraco in relation to principle, quantum or progress. The INTC has been agreed in full, work carried out in full, certified and paid. tie's figure in relation to this category is £5,295,235. On the basis that this represents those INTCs which have been agreed in full, certified and paid, there ought not to be any controversy in relation to this figure.
- (b)** The second category is those INTCs where the INTC has been agreed, but there is a dispute in relation to the extent to which the work in question has been completed. To the extent that there is agreement, certification has been made, and

¹⁸ Clause 51 of Schedule Part 9 of the Infraco Contract

sums paid over – however, in the interim, there is a dispute about an element of progress. If work were to continue, the subject matter of the INTC would eventually be completed, and in that event, tie and Infraco ought to be in agreement in relation to the eventual payment to be certified and paid. tie has assessed this as follows:

Infraco value	£5,079,449
tie value	<u>£4,127,237</u>
Difference	£952,121

For the reasons explained above, in the absence of any independent verification of tie's figures, the prudent approach would be to use Infraco's figures for the purposes of this analysis. As referred to at section 2 above, a mid point between tie and Infraco's figures has been utilised¹⁹.

INTCs determined through adjudication

8.6 tie's figures report in relation to this category are as follows:

Sums applied for by Infraco	£3,087,330
Certified by tie	<u>£2,839,494</u>
Difference	£247,836

8.7 It is understood from tie that there is a difference between the parties in relation to the extent to which work has been completed pursuant to the adjudication decisions, and that accounts for the figure of c. £250k.

8.8 For present purposes, the prudent starting point is to take the values unlocked by the adjudicator's decisions into the financial assessment based on Infraco's approach. As referred to at section 2 above, a midway point has then been taken between tie and Infraco's figures.

INTCs where there is a dispute on quantum

8.9 tie has carried out an assessment of INTCs where there is no dispute in relation to the principle that a tie Change has occurred, but there is a dispute in relation to the valuation of that tie Change.

8.10 tie's assessment of work carried out in this category is as follows:

¹⁹ It should be noted that this does not relate to a dispute in relation to value (as referred to at section 2 above, but in relation to progress. However, for consistency, the midway point has been adopted here as well.

Infraco value	£3,119,629
tie value	£1,588,588
Difference	£1,531,041

- 8.11 There is no independent analysis of tie's figures available; in the event of a dispute in relation to this issue, it is likely that factual and expert quantity surveying evidence would be required to determine the correct value. For present purposes, as referred to at section 2 above, a mid point between tie and Infraco's figures has been utilised.
- 8.12 In addition, there is an issue between the parties in relation to the uplift payable to Infraco in relation to SDS: the percentage uplift to be applied is not in dispute. What is in dispute is the underlying value of the SDS account to which that percentage ought to be applied. There is no information available that would enable an assessment to be made in relation to how this account should be treated; accordingly, a mid point between tie and Infraco's figures has been adopted as referred to at section 2 above.

INTCs where there is a dispute in principle

- 8.13 There are a number of INTCs in relation to which tie dispute (in full or in part) that a tie Change has occurred. In those cases, there is also a dispute on quantum, in the event that tie is unsuccessful in its primary argument.
- 8.14 tie has been requested to approach its categorisation of these INTCs by reference to the underlying basis for the dispute. There are three principal categories in this respect:
- (a) Design development/misalignment;
 - (b) Issues in relation to clause 22, and the interaction of clauses 65 and 80;
 - (c) Miscellaneous changes.

Each of these is dealt with in turn below.

Design development/Pricing Assumption No.1 and misalignment

- 8.15 Infraco claims to be entitled to recover the cost and time consequences associated with changes in the design between BDDI and IFC as Notified Departures. That claim is based on a literal interpretation of the wording in Pricing Assumption No.1, and in particular that tie bears the risk of all changes of "*design principle, shape and form and outline specification*". These words on the face of it appear to narrow substantially the scope or content of what

- would otherwise form part of normal design development, for which Infraco would bear the risk.
- 8.16 There are two categories of design change where it would produce an irrational or absurd result if Infraco were to be entitled to recover cost and time:
- (a) Where a change is driven by Infraco, for example to improve the buildability of the project;
 - (b) Where something is required by the Employer's Requirements, but not shown on the BDDI.
- 8.17 Beyond these categories, there are difficulties with an interpretation that leads to the conclusion that Infraco bears the risk of all design development other than substantial or material changes.
- 8.18 The legal issues involved in this dispute are set out in Appendix 3 of this report; despite a number of adjudications between the parties in relation to specific INTCs and structures, no determinations have been issued which bind the parties in relation to the proper interpretation to be given to the relevant provisions of the Infraco Contract.
- 8.19 For the reasons explained in the discussion at Appendix 3 of this report, the issue is a difficult one: Infraco's argument is the more straightforward, since it proceeds on a literal interpretation of the words which are used in the Infraco Contract. tie is undoubtedly confronted with the more difficult argument.
- 8.20 Even if it is the case that tie's legal interpretation is upheld, this then requires the exercise of expert engineering judgement on the facts of each INTC. That exercise has not been undertaken in relation to each of the INTCs; however, at the highest level, even on tie's interpretation, there are likely to be some INTCs in this category for which tie bears the risk.
- 8.21 tie has carried out an assessment of the value of each of the relevant INTCs in relation to work which has already been carried out, as follows:

Pricing Assumption No.1

Infraco value:	£2,421,905
tie value:	<u>£60,865</u>
Difference	£2,361,040

Misalignment

Infraco value:	£848,424
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tie value: £255,287

Difference £593,137

- 8.22 In some cases, tie has assessed a value against an INTC even where it considers that there has been no tie Change. It is understood that this is because the INTC in question covers some elements which are accepted to be a tie Change, and others which are not.
- 8.23 tie has also produced an alternative figure in each case which evaluates the INTC in question on the assumption that Infraco is correct in principle to assert that there has been a tie Change, but tie takes issue with the quantum of Infraco's figure. This would reduce the value of Infraco's claim to £1,259,249 in relation to Pricing Assumption No.1, and £410,322 in relation to misalignment.
- 8.24 On the basis of the comments above in relation to the relative prospects of success of the competing arguments, it can be seen that it would be prudent to proceed, for present purposes, on the basis that Infraco will be entitled to make recovery in relation to these INTCs. There is no independent verification of Infraco's alternative assessment on quantum, and accordingly, as referred to at section 2 above, a mid way point has been taken between tie and Infraco's figures.

Clause 22/65

- 8.25 Infraco has chosen to present a number of claims which, it says, constitute *Change* as properly defined under the Contract. In order to do so, Infraco has submitted an INTC in relation to a specific set of facts which, it suggests, is a departure from the original scope of Works and as such entitles it to an amendment to the CWP.
- 8.26 Assuming that Infraco's interpretation of an issue apparently affecting the works is correct, then that matter may well constitute a tie Change, and Infraco is entitled to submit an Estimate requiring more time and money in relation to the issue. It is then incumbent upon tie to ~~asses~~ assess that Estimate and, until such time as agreement is reached (unless tie serves a Notice under clause 80.15 requiring the "changed" works to be carried out), Infraco may cease work.
- 8.27 This has proved an effective tactic for Infraco, by which it has placed undue pressure upon tie to settle claims; however, tie has sought to question whether Infraco's approach is correct in contract. It is considered that that there are grounds to suggest that Infraco's approach is flawed, and that the issues being complained of properly constitute Compensation Events and, as such, require Infraco to comply with a number of onerous

contractual provisions not least of which are the numerous conditions precedent to any entitlement.

- 8.28 In the main, on encountering issues relating to ground conditions (which are governed by clause 22), Infraco has failed to comply with the time limits set out in Clause 65 of the Infraco Contract. However, Infraco has sought to avoid the provisions of Clause 65 and has argued that the issue relates to the Pricing Assumptions²⁰ and, as such, the issue complained of constitutes a Change.
- 8.29 There are two main reasons why Infraco has ~~not~~ sought to adopt this contractual interpretation; first it obviates the need to comply with the conditions precedent which may well be fatal to its claim. Second; the resultant disagreement allows Infraco to suspend the works.
- 8.30 It is considered that there are strong grounds to believe that the issues being complained of should be more properly considered to be Compensation Events rather than Changes as they constitute the same (unchanged) scope being undertaken in differing circumstances, as opposed to different work being undertaken in normal circumstances.
- 8.31 In short, having obtained Senior Counsel's Opinion on the matter it is considered that the correct interpretation of clause 80 is that it relates to what are more traditionally thought of as variations (changes of scope), whereas clause 22.5 and clause 60 relate to what would normally be considered to be delaying events under a more traditional construction contract (that is the same scope undertaken in changed circumstances).
- 8.32 tie has assessed the value of these INTCs as no more than £229k, whereas Infraco believes the value to be in the region of £640k. tie, on the basis that its arguments as to principle fall away, but the issue of quantum remained to be assessed or challenged, has stated that the likely value of the changes would be £435k.
- 8.33 There are three "gates" which Infraco has to get through:
- (a) Firstly, Infraco has to either succeed with its contention that it can claim under clause 80 or alternatively that it is still open for Infraco to bring a claim under clause 65;
 - (b) Secondly, Infraco would have to establish its entitlement under clause 80; and
 - (c) Thirdly, Infraco would have to establish the quantum which it contends for.

²⁰ At Schedule part 4, clause 3.4.1

- 8.34 For the reasons explained above, the prudent approach would be to take a comparison between tie's figures in relation to quantum (assuming that the point of principle is lost) and Infraco's figures, and adopt the mid point between these two figures in the analysis as referred to at section 2 above.

Miscellaneous INTCs

- 8.35 Beyond the categories identified above, there are further INTCs which have been grouped together in a miscellaneous category. The issues raised by these INTCs are well rehearsed between the parties and typically relate to matters of expert engineering opinion (such as the necessity to undertake works in a certain way, or design solutions to problems encountered at site). There are, for example, arguments as to which party takes the risk for contamination or ground conditions at various locations.
- 8.36 It is understood from tie that the two largest INTCs which fall into this category are as follows:
- (a) A dispute in relation to the Principal Contractor's Licence of approximately £1.089m. BB has sought reimbursement of the costs of procuring and maintaining a licence for working in or adjacent to Network Rail property. tie does not consider this to be a change. In any event, tie considers that BB ought to be able to operate under a licence already held by Siemens.
 - (b) A dispute in relation to Pricing Assumption 12 of approximately £1.421m.
- 8.37 The report produced by tie has indicated a range of potential liabilities arising from the various INTCs (which total nearly 200 in number). Infraco has valued those apparent changes in the sum of £3.471m whereas, on a point of principle, tie believes the value of the changes to be no more than £499k.
- 8.38 tie's valuation is assessed on the basis that the principle relied upon to defeat Infraco's claim is sound and therefore the remaining value (£499k) simply reflects those elements of the various Estimates which are agreed (with the bulk of the figure falling away as a result of the principle).
- 8.39 In order to take a prudent account of the possible risk in relation to these items, tie has been asked to provide an assessment of the likely value of these INTCs on the assumption that the point of principle in each case is lost, and the subject matter falls to be treated as a tie Change. On this basis, tie has assessed the likely exposure at £2.305m.



8.40 For the reasons explained above, the prudent approach would be to take a comparison between tie's figures in relation to quantum (assuming that the point of principle is lost) and Infraco's figures, and adopt the mid point between these two figures in the analysis as referred to at section 2 above.

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9 **Separation - extension of time**

9.1 There is no controversy that the Infraco Works have been delayed; as at the original scheduled Completion Date of 11 February 2011, the overall project was substantially in delay. Some of the reasons for those delays have been rehearsed between the parties at length and Infraco has made a number of claims for extensions of time.

9.2 To date, Infraco has sought the following extensions of time through the formal mechanism under the Infraco Contract:

- (a) EOT 1 (INTC 1);
- (b) MUDFA rev 8 (INTC 429);
- (c) MUDFA 2 ~~rev-8~~ (INTC 536);
- (d) A claim in respect of the Depot and associated works.

9.3 In addition, further claims exist and have either been intimated as part of the INTC process, or are matters for which tie has a reasonable contemplation that a claim will be made in due course. Claims under these heads can be considered as:

- (a) Claims arising in relation to the operation of the change and Estimate mechanism in clause 80 of the Infraco Contract;
- (b) Various "sweeper" claims for which outline details have been provided in correspondence;
- (c) A potential claim touching on the "standstill" period following the Mar Hall mediation in which the parties have been negotiating the MOV4 and the Settlement Agreement, during which all works other than the Prioritised Works have been placed on hold.

9.4 With regard to the first claim – EOT 1 (or INTC 1) - this related to a misalignment between the SDS design programme and the construction programme which occurred during the contract tender and execution stage ~~and the~~. ~~The parties, having resolved, were able to resolve~~ their differences ~~through mediation agreed to~~ and agree an extension of 7.6 weeks to the contract programme.

9.5 The second claim (MUDFA rev 8/INTC 429) was far more contentious and involved the parties referring the consequent dispute to adjudication. The result of the referral was that

Infraco's claim, as to Section A, was set at an extension of 154 days but the remaining three Sections remained unamended²¹.

- 9.6 The next category of claims submitted by Infraco relate to the failure to divert Utilities ahead of the construction works (INTC 536) and various alleged delaying changes at the Depot works. As to the first of these claims, it is considered that whilst tie may have good procedural defences to the claims and whilst Infraco's case presently may be incorrectly pleaded, it remains the case that Infraco is likely to receive a substantial extension of time.
- 9.7 Despite the size of this claim, Infraco has submitted little supporting evidence which has meant that tie has only been able to undertake narrow (although detailed) interrogation. That exercise indicates that the grounds relied upon by Infraco may be misconceived but it is accepted that a substantial extension (on other grounds) may well be due.
- 9.8 The second claim in this category was submitted immediately prior to the Mar Hall mediation, and seeks an extension of time in connection with the Depot.
- 9.9 Over and above the first two categories of claim there are the three remaining claims as set out above. In broad terms, these claims can be considered to be sweep-up claims extending to the present hiatus in construction work (as a result of MOV 4) and general claims relating to INTCs and any other, at present unknown, heads of claim. It is almost impossible to gainsay the likely nature of these claims and even harder to predict any financial outcome.
- 9.10 Pulling together the threads of the foregoing, it can be concluded that it would be prudent to assume that Infraco are likely to be entitled to an extension of time that would cover at least the period to the point at which separation occurs. Infraco has submitted substantial claims in relation to delays caused by utilities, and beyond that are likely to advance further claims in relation to delays associated with the operation of the change mechanism in clause 80.
- 9.11 Whilst there are arguments available to tie in relation to issues of causation, conditions precedent, and so on, it is more likely than not that such an extension would be granted.
- 9.12 The critical issue is then whether Infraco would be entitled to make any financial recovery in relation to additional costs sustained by them which have been caused by the delay.
- 9.13 A key principle in this context is that Infraco ought not to be entitled to make any double recovery in relation to costs incurred by it as a result of any prolongation to the Infraco

²¹ Although Infraco attempted to obtain a further 28 days extension to Section B arguing a logic link between sections, the Adjudicator refused to amend his decision

Works – both in terms of the provisions of clause 121 of the Infraco Contract, and in terms of general legal principles.

9.14 In particular:

(a) There ought not to be any overlap between Infraco's entitlement to be paid for Preliminaries in terms of Schedule part 5, and any entitlement to additional cost caused by delay. This issue is addressed in more detail below;

(b) There ought not to be any overlap between Infraco's entitlement to be paid for preliminaries in relation to Prioritised Works pursuant to MOV4.

9.15 The following section 10 of this report addresses the treatment of preliminaries in the Infraco Contract and MOV4. Section 11 addresses the questions of how the contractual principles in relation to both preliminaries and additional cost caused by delay interact in order to arrive at the appropriate financial position to be reached for the purposes of this report.

10 **Separation - preliminaries**

10.1 One of the issues which has divided tie and Infraco is the question of whether preliminaries fall to be paid on a purely time related basis, or whether Infraco are required to demonstrate progress and expenditure in order to release the payment of preliminaries.

10.2 Until April 2010, payment was certified by tie to Infraco on a time related basis, with a sum equivalent to the value of each item for preliminaries shown in Schedule part 5 being released on a 4 weekly basis, without any application having been made by Infraco. As at April 2010, the sum of £35.367m had been certified in this way, representing approximately 75% of the overall total for preliminaries. tie then stopped making any further certification or payment of preliminaries, in the absence of information that would demonstrate the actual costs that had been incurred by Infraco.

10.3 Infraco commenced an adjudication in November 2010, seeking a decision, in principle, in relation to the way in which preliminaries ought to be treated under the Infraco Contract.

10.4 The central issue in this adjudication, before Lord Dervaird, was whether preliminaries are to be treated as a Construction Milestone within the meaning of the Infraco Contract.

10.5 Clause 66.2 of the Infraco Contract states:

"Any application for payment of sums due in respect of Construction Milestones, Critical Milestones and Tram Milestones and any payment to be made in respect of Construction Milestones, Critical Milestones and Tram Milestones shall be made in accordance with the procedure set out in Clause 67 (Payment in Respect of Applications for Milestone Payments)."

10.6 If preliminaries fall to be treated as Construction Milestone, then payment in relation to the preliminaries would only fall to be made if Infraco made application for them in the same way as any Construction Milestones: prior to the adjudication, Infraco had not applied for preliminaries, which (until April 2010) had been paid to them irrespective of the absence of any application.

10.7 "Milestone" is defined in the Infraco Contract as *"a Construction Milestone, a Critical Milestone, a Mobilisation Milestone, a Tram Milestone and/or a Tram Maintenance Mobilisation Milestone."*

10.8 "Construction Milestone" is in turn defined as *"any milestone...which has been identified and defined as a construction milestone in of [sic] Schedule Part 5 (Milestone Payment)."*

Schedule part 5 does not specifically define any particular items as construction milestones, but is headed "*Milestone Payment Schedule*."

10.9 Lord Dervaird held that preliminaries are not a Construction or Critical Milestone but "*are simply a time based cost*". Because that is the case, preliminaries do not have to be applied for in accordance with the procedure in clause 66.2 referred to above.

10.10 This then leads to the question of how prelims are to be treated in terms of the payment mechanism in the Infraco Contract. Clause 67.4 provides that:

"Each Application for Milestone Payment and/or an application for payment for any other fees, costs and/or expenses in respect of Permitted Variations or other costs or expenses which have been expressly approved by tie and/or to which the Infraco is entitled in accordance with this Agreement shall:

67.4.1 *set out the Milestones and Critical Milestones progressed in that Reporting period and the Milestone Payment due in respect of the same;*

67.4.2 *set out any other agreed adjustments pursuant to a Permitted Variation; and*

67.4.3 *any other sums due to or from the Infraco under and/or arising out of this Agreement in accordance with its terms,*

(together with reasonable supporting documentation establishing the basis of such sums being claimed)." [emphasis added]

10.11 If the preliminaries are not to be treated as a Construction Milestone (and they are clearly not a Permitted Variation), then it appears that the only place where provision is made for them to be paid is as part of the "*other costs and expenses*" referred to in clause 67.4.

10.12 It is for this reason that Lord Dervaird concluded that Infraco must provide "*reasonable supporting documentation establishing the basis of such sums being claimed*" before its entitlement to payment arises.

10.13 It is not easy to reconcile these two aspects of the Infraco Contract. Lord Dervaird was asked by Infraco to clarify this point after the adjudication; he responded in an e-mail which does not form part of the binding elements of his decision. That non-binding e-mail states: "*As I have determined that Preliminaries are a time based cost, it appears to me that the documents required to establish the basis of sums...will be those necessary to establish the particular period or periods for which the sums are claimed, together with those which determine the rate or rates payable in relation to the period or periods. Those rates will it*

appears to me generally be found by reference to the appropriate part or parts of Schedule 5...It is possible that consideration may also have to be given to the items referred to as Preliminaries in Schedule Part 4 page 39 headed Method Related Charges (some of which are described as fixed, and others as Time Related), but no issue was raised before me in respect of those items..."

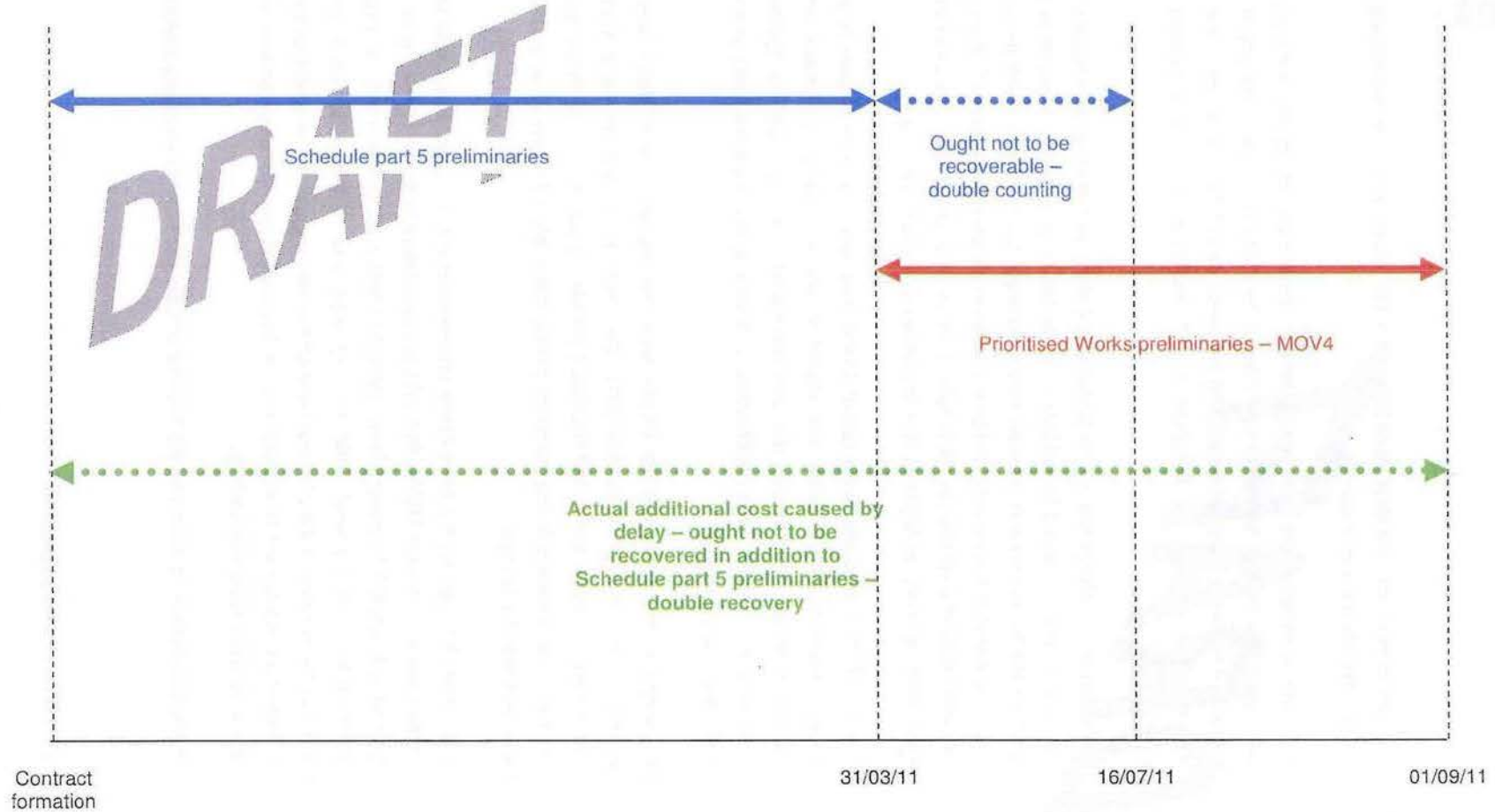
- 10.14 Infraco has interpreted the decision as meaning that it has to do no more than produce information which confirms the period for which it is seeking payment of preliminaries, linking this to the relevant value shown for those periods in schedule part 5. tie has interpreted the decision to mean that Infraco will be entitled to recover only preliminaries linked to progress, and which have therefore actually been expended.
- 10.15 On balance, it is considered that a court would be more likely to follow the straightforward approach taken by Lord Dervaird ~~which~~. This would entitle Infraco to recover the preliminaries, subject to the provision of vouching which addresses the passage of time, thereby yielding the sums set out in Schedule part 5.
- 10.16 However, in the event that this interpretation is upheld, it would mean that Infraco would continue to be entitled to recover preliminaries, which would recompense it for its costs of being on site.
- 10.17 Schedule part 5 provides for preliminaries to be paid in this way until 16 July 2011. However, MOV4 provides that Infraco will be entitled to recover preliminaries in relation to the Prioritised Works for the period between 31 March 2011 and 1 September 2011 in the event of automatic termination.
- 10.18 In terms of clause 9.6 of MOV4, Preliminaries are "a time based payment and shall be certified for payment once the relevant time period has elapsed without the need for further valuation or substantiation". However, in the event that Infraco do not progress the Prioritised Works in accordance with the Prioritised Works Programme as a result of matters which are not tie's responsibility, the Certifier is to make a reasonable assessment of the preliminaries properly due to Infraco.
- 10.19 Infraco ought not to be entitled to recover both Schedule 5 preliminaries and MOV4 Prioritised Works preliminaries for the same period of time: the Prioritised Works preliminaries cover the period between 31 March and 1 September 2011 when no work other than the Prioritised Works are being carried out²².

²² Clause 3.2 of MOV4

- 10.20 This can be seen from the diagram on page 36 of this report, where the overlapping periods can be seen shown in blue and red.
- 10.21 Furthermore, Infraco ought to not to be entitled to make a second, double, recovery for this same period by way of additional cost caused by delay (the green line shown on the diagram): if Infraco is being delayed during the period up to 1 September 2011, it is making recovery either through the Schedule part 5 preliminaries or the Prioritised Works preliminaries.
- 10.22 To the extent that Infraco has had to increase, or thicken, its resources as a result of the tie Changes for which it would be entitled to an extension of time, that increase is already recompensed by reference to the rates paid for change. Schedule part 4 contains a rate of 7.4% to be added to the value of change in relation to Infraco's preliminaries²³. Furthermore, the parties agreed a variation to the Infraco Contract on 3 June 2009, in terms of which an amendment was made to Appendix G in Schedule part 4 which provided that:
- "Further, 17.5% to be added to the Actual Cost to cover any other Preliminaries (in addition to the Consortium Preliminaries) with regard to any tie Change associated with Civil Engineering Works, provided that this calculation shall in no case apply to Systems and Trackworks or claims for other Preliminaries in relation to prolongations costs arising from extensions of time or delay".*
- 10.23 Accordingly, to the extent that the Infraco resources originally contemplated have been delayed on site up to 1 September 2011, this ought to be paid for as a function of preliminaries (Schedule part 5 and Prioritised Works). To the extent that those resources have had to be increased during that same period, this ought to be paid for as a function of the agreed rates for change.
- 10.24 Once Infraco has passed the point where preliminaries are no longer being paid through Schedule part 5 or through MOV4, then Infraco's entitlement to make recovery of its actual additional cost caused by delay will be activated (subject to it establishing an underlying entitlement for such recovery). That will only apply after 1 September 2011, and will therefore only be relevant if the Infraco Contract survives beyond that point (either because the Settlement Agreement is entered into, or because it has not been entered into for reasons not associated with funding).
- 10.25 The following section 11 deals with the financial consequences of the foregoing analysis.

²³ Clause 1.3 of Appendix G to Schedule part 4

Preliminaries and additional cost caused by delay



11 **Financial consequences of analysis in relation to additional cost caused by delay and preliminaries**

11.1 For the reasons explained in the foregoing section, it is considered that Infraco ought not to be entitled to recover both preliminaries and additional cost caused by delay in relation to the same period.

11.2 *Either* preliminaries are solely a function of time (in which case no additional cost caused by delay falls to be recovered during the period for which preliminaries are being paid), *or* entitlement to preliminaries requires to be vouched by reference to actual progress and expenditure, in which case, Infraco will also be entitled to make a recovery for its additional cost caused by delay.

11.3 The following section addresses what the entitlement of Infraco might be under each of these alternatives, and then sets out some conclusion in relation to the approach which ought to be taken for present purposes.

Additional cost

11.4 As referred to at section 9 above, the parties agreed an extension of 7.6 weeks in relation to EOT 1. The additional cost flowing from this extension of time was agreed at £3.542m, but this sum has not yet been paid because tie do not consider it to have fallen due – the parties still being within the period covered by Schedule part 5 preliminaries. Furthermore, only £2.8m of the total has yet been claimed by Infraco

11.5 In relation to second tranche of extension of time (MUDFA rev 8 / INTC 429), the additional cost connected with the extension of 154 days awarded by Robert Howie at adjudication has been partly agreed. tie has agreed payments of £210,715 and €785,797²⁴ respectively with Siemens and CAF. These sums have not yet been paid because tie does not consider that they have yet fallen due (as referred to in the previous paragraph). BB has claimed the sum of £565,455, but this figure is disputed by tie.

11.6 Infraco seek payment of £39.306m (BB and Siemens) and €4.971m (CAF) in relation to the extension of time sought in INTC 536 (which also relates to Utilities). For consistency, these sums have been converted to a total sterling amount of £43.670m. This figure is disputed by tie.

11.7 The final claim which has actually been submitted is that produced by Infraco immediately prior to the mediation in relation to the Depot. This seeks payment of the sum of £20.08m.

²⁴ In order to produce a consistent value, this report will amalgamate the costs sought by Bilfinger Berger and Siemens (in sterling) with costs sought by CAF (in Euros) into sterling utilising, an exchange rate of £1.00 = €1.139

- 11.8 The total of Infraco's claims as submitted, or agreed (aggregating 11.4 to 11.7), to date is approximately £68.7m. It remains open to Infraco to revisit the claims which they have submitted but which have not yet been agreed. For example, in the context of litigation, they might seek to change the approach which they have adopted. Furthermore, the figure of £68.7m does not take into account any claims yet to be made by Infraco, for example in relation to the operation of the change mechanism in clause 80.
- 11.9 tie's assessment of Infraco's entitlement to additional cost caused by delay on the basis of the foregoing claims for extensions of time amounts to £20.244m. However, this represents tie's view in relation to ~~the actual loss and expense sustained by Infraco~~ additional cost, on the basis of an extension of time that would *not* take Infraco all the way to 31 March 2011 (see comments above in relation to MOV4 and the provision for Prioritised Works preliminaries from 31 March 2011 onwards).
- 11.10 tie has also carried out a further exercise, in terms of which tie has assessed what Infraco's entitlement to additional cost caused by delay might be, if the period in question was taken all the way to 31 March 2011. tie's assessment of this figure is £46.974m
- 11.11 For the reasons explained in section 9 above, it is considered more likely than not that Infraco would be awarded an extension of time up to at least separation. The prudent approach would therefore be to use the higher figure of £46.974m as a starting point for the appropriate evaluation of additional cost caused by delay.
- 11.12 It is understood from tie that the basis of its approach has been the following:
- (a) In relation to BB, the starting point for the assessment has been to apply the process set out in Appendix G of Schedule part 4 (*Process for agreement of value of tie Changes*). Clause 1.3 ends as follows:
- "If appropriate to the particular tie Change, any other Preliminaries elements, valued in accordance with the Spreadsheet 2 set out in Appendix F."*
- tie has interpreted the use of the phrase "*if appropriate*" to mean that only those figures in relation to which work was actually being carried out and costs therefore being incurred, should be taken into account. There would appear to be some force in this interpretation.
- (b) In relation to Siemens, tie's approach has been to use the weekly figure agreed with Siemens in connection with EOT1, and pro rate that to cover the entire period to 31 March 2011.

- (c) It should be noted that no figure is included in relation to CAF. That figure is taken account of in section 13 which addresses additional consequences of separation, and includes payments to CAF.
- 11.13 Conceptually, the approach taken by tie in arriving at its totals appear to be sound (subject to the comments below in relation to double recovery); however, it would be prudent to allow for a figure beyond that which has been calculated by them:
- 11.13.1 The first reason for this is that there is risk associated with the tie approach in connection with BB: specifically, BB may well seek to argue that it should be entitled to make recovery in relation to all areas, not just those being worked on (in other words, a differing interpretation of the meaning of "if appropriate" within the context of Appendix G to Schedule part 4). Furthermore, there may be a dispute in fact in relation to the areas in which Infracore were actually working.
- 11.13.2 The second reason is in connection with tie's approach to Siemens: the weekly figure agreed in connection with EOT1 was a sum negotiated close to the outset of the project. It may well be the case that Siemens seeks to revisit this number, and it is unlikely that it would be held to be bound to that figure in relation to periods of delay beyond those covered by EOT1²⁵.
- 11.14 Cyril Sweett has been asked by tie to prepare a report which seeks to assess the potential exposure to additional cost caused by delay, based on an exercise conducted by Acutus. That exercise sought to set out some parameters in relation to an entitlement to extension of time, based on information available to Acutus at the time. It was not based on a detailed forensic analysis of all time related issues that might impact the project to 1 September 2011. Cyril Sweett concluded that the potential range of additional cost would be in the region of between £16.709m and £62.943m.
- 11.15 On the assumption referred to above, namely that additional cost caused by delay ought to be considered by reference to an end date of 31 March 2011, tie's view is that the appropriate figure to take from Cyril Sweett's analysis would be the upper figure of £62.943m. Of this total, ~~it is understood from tie that~~ Cyril Sweett's report states that circa £7m is referable to a period after 31 March 2011, and therefore the adjusted figure would be £55.943m.
- 11.16 Drawing together the foregoing:

tie's assessment	£46.974m
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²⁵ tie considers that this weekly figure for Siemens is a high one, and that Siemens would be unlikely to seek a figure as high as this. However, it remains the case that the weekly figure is subject to increase, and this risk is factored into the conclusions reached at paragraph 11.17

Cyril Sweet's assessment	£55.943m
Infraco's figure	£68.700m (may be subject to increase as noted above)

- 11.17 On the basis of the foregoing, it would be prudent to assume for present purposes that the sum to be allowed for Infraco's entitlement in relation to additional cost caused by delay is £60m. This figure is not a scientific or definitive prediction of the sums which Infraco might recover. That could only be achieved by undertaking a detailed forensic analysis of the issues. It represents a prudent figure to be carried forward into the spreadsheets at Appendix 1 of this report.

Preliminaries

- 11.18 It appears to be agreed between tie and Infraco that if preliminaries were to be paid on the basis of the effluxion of time to 31 March 2011, that amount that would fall due to Infraco would be £47.276m. Beyond this, there appears to be a dispute in relation to whether a further Incentivisation Milestone of £1.2m falls to be paid. The basis of this dispute is not clear, and for present purposes, it should be assumed that the total figure would be £48.476m. The sum of £35.367 has been certified against this figure, leaving a difference of £13.109m still to be paid by tie to Infraco.
- 11.19 In relation to MOV4, if Infraco proceed with the Prioritised Works to 1 September 2011, its entitlement to preliminaries flowing therefrom, will be £5.929m. It is recognised that Infraco might not progress with the Prioritised Works on the agreed basis; in that event, its entitlement to recover preliminaries in respect of the Prioritised Works ought to be reduced. However, for present purposes, the prudent approach is to assume that Infraco will be entitled to the full amount.
- 11.20 Accordingly, the total of Infraco's entitlement on a time based approach to preliminaries would be as follows:

Schedule part 5	£47.276m
Incentivisation Milestone	£1.200m
Prioritised Works Preliminaries	<u>£5.929m</u>
	£54.405m

- 11.21 If preliminaries fall to be evaluated on a basis commensurate with work done for the period to 31 March 2011, then tie's assessment is that Infraco would be entitled to recover the following:

Fixed preliminaries:	£10,186,000
Time related preliminaries	<u>£11,990,000</u>

£22,176,000

- 11.22 If preliminaries are to be approached in this way, then Infraco would be entitled to make recovery of its additional cost caused by delay, subject to the usual evidential requirements as referred to above. As referred to above, the approach which has been adopted is that a figure of £60m would be appropriate for present purposes. The overall total on this basis would therefore be £82.176m.

Conclusion

- 11.23 On the basis of the foregoing, it can be seen that a comparison between a time based approach to preliminaries and additional cost caused by delay, and an "earned value" one can be summarised as follows:

Time based: £54.405m

Additional cost: £82.176m

- 11.24 For the reasons explained above, these two totals ought to be treated as mutually exclusive alternatives. On balance, it is considered that the better approach, supported by the decision of Lord Dervaird, is the time based one. However, for the purposes of the current exercise, it would be prudent to assume that the potential exposure lies in a range between the two figures.

12 **Separation - mobilisation payment**

- 12.1 A further element of the payment to which Infraco may be entitled for work carried out is in respect of the mobilisation payment made to BB and Siemens of £45.2m. That sum has already been paid by tie; the question which arises is whether any element of it can be recovered in the event that the Infraco Contract is brought to an end prematurely, without all of the Infraco Works having been completed. This issue is addressed in detail at Appendix 2 of this report, the conclusions of which are summarised below.
- 12.2 tie employees who were involved at the time of the formation of the Infraco Contract have indicated that the mobilisation payment was in fact an advance payment to BB and Siemens, paid 50/50, to assist them with cashflow. It is understood that value was taken out of the other elements of the Contract Price and paid to Infraco at the outset of the project in the form of the mobilisation payments.
- 12.3 On this basis, if the Infraco Works are completed, the advance payment would eventually balance itself out as the Milestones (whose value had been reduced to take account of the mobilisation payments) catch up with the payments which had been made up front. However, if the Infraco Works are not completed, and Infraco's involvement is halted part way through the project, the balancing out of the advance payment will not have been completed in its entirety.
- 12.4 tie's position is that it was the common understanding of the parties prior to contract formation that an element of the advance or mobilisation payment ought to be returned in the event that the Infraco Works are not completed by Infraco.
- 12.5 There is some force to the proposition that the parties cannot have intended that the mobilisation payment should operate as a windfall to Infraco in the event the Infraco Contract was brought to a premature end.
- 12.6 That is supported by the provisions of clauses 88.8 and 90.12 of the Infraco Contract, which suggest that in the event of termination, the payment to which Infraco is entitled will bear some relation or proportionality to work done, or value earned.
- 12.7 However, if the correct approach to preliminaries and additional cost caused by delay is to adopt the time based approach referred to at section 11 above, then it would be consistent to treat the mobilisation payment as having been triggered by the effluxion of time: once having been triggered in this way, then there would be no mechanism in terms of which the mobilisation payment could be clawed back.

- 12.8 Even if it is the case that some element of the mobilisation payment falls to be repaid on early termination, the question which then arises is how the extent of any repayment of the mobilisation payment is to be calculated. tie's approach has been to aggregate the Construction Milestones (partially and wholly completed) with an assessment of the value tie Changes, and compare that with the amount actually paid, in order to arrive at a view of how much Infracore has been "overpaid". However, this approach does not provide a true reflection of the recalculation of the mobilisation payment.
- 12.9 It is possible to arrive at a number of ways of calculating the potential repayment (for example, through a recalculation of the Construction Milestones to divide the £45.2m mobilisation advance between them proportionate to value), but a court is only likely to adopt any one of these approaches if it is satisfied that this was, objectively speaking, what the parties must have intended.
- 12.10 In the absence of a cogent explanation of the way in which the calculation of any repayment ought to be calculated, the prudent approach for present purposes would be to assume that Infracore will be entitled to retain the full extent of the mobilisation payment. If such a formulation can be determined by tie, then the issue ought to be revisited in order to assess whether it would be reasonable to conclude that tie will be entitled to make some recovery therefor.

13 Separation - additional consequences

CAF

13.1 In the event of automatic termination under MOV4, tie will acquire the Trams, the Tram Related Equipment and the Depot Equipment, in return for payment of a sum calculated to reimburse CAF for what it has delivered.

13.2 Clause 3.3.6 of MOV4 provides that this payment will be calculated by reference to:

- (a) All the milestones payments in the Tram Supply Agreement, not merely those milestones which have been triggered by the passage of time;
- (b) Less a deduction to reflect the difference in value between what CAF has delivered, and what it would have delivered had the Infraco Contract not been terminated.

13.3 This figure is assessed by tie to be £10,330,000. This figure has been included in tie's total cost of another contractor completing the ETN as far as York Place (see section 14 below).

13.4 In addition, certain sums fall to be paid to CAF in relation to delays sustained by them. These figures have been agreed between tie and CAF as follows:

Claims in relation to MUDFA delays	€786,000
Further claims in relation to delay to depot	€5,100,000
Additional claims	<u>€466,000²⁶</u>
	€6,352,000

13.5 As referred to at section 9 and footnote 24 above, the sums which have been expressed in Euros have been taken forward into the spreadsheet analysis in sterling, using an exchange rate of £1.00 = €1.139. On this basis, €6,352,000 is equivalent to £5,576,821.

²⁶ This figure was agreed during the Mar Hall mediation. It is understood that subsequently parties have agreed to value this figure on the basis of a schedule of rates, but that the eventual total should not exceed €466k. That figure has therefore been utilised for present purposes.

14 **Separation - claims by tie against Infraco**

14.1 The intervention of the Mar Hall mediation and the subsequent execution of MOV 4 essentially placed in hiatus a number of claims which tie was intending to bring against Infraco (and *vice versa*). However, as part of the culture change, these claims were effectively shelved in the hope that they would be incorporated into the lump sum price to be paid for the Off Street works on the basis that the Settlement Agreement was entered into.

14.2 However, on the basis that the Settlement Agreement is not entered into and the party's positions then become entrenched, in response to any claims brought by Infraco it is inevitable that tie will look to its own claims as a means of abatement.

14.3 It is likely that a number of claims already exist and that, upon termination or through separation, more claims come to light. However, the following claims have been identified which need to be taken into account when assessing separation costs. Those claims are:

- (a) Princes Street defects
- (b) Consequential losses/third party claims in relation to Princes Street;
- (c) Over payments in relation to the Princes Street Supplemental Agreement
- (d) Other defective works
- (e) Lost value engineering opportunities

14.4 Each of these potential areas of claim is considered in turn at Appendix 4 of this report.

14.5 In overview, however, save for the claim relating to the Princes Street defects, these various heads of claim effectively either cancel out or negate other heads (and thereby attract a nil value) or else are mentioned here in order to ensure the principles behind the claims are recognised, as opposed to a value being adopted.

14.6 With regard to the claim relating to the defective Works at Princes Street, tie has assessed this claim to be in a broad range of £0.5m to £8m, depending on the extent of remedial work to be carried out. However, it is evident that tie would seek to maximise their recovery in this respect. For the purposes of the current analysis, a figure of £4m has been utilised on the basis of discussions with the Certifier.

15 **Separation - costs of employing another contractor**

- 15.1 In order to provide a like for like comparison with the Settlement Agreement, tie has produced an assessment of the potential cost associated with engaging another contractor to complete all outstanding work as far as York Place. The risk allocation of this new contract would require to be negotiated and agreed: the cost of proceeding with a new contractor would turn to a significant extent on the risk profile that could be achieved.
- 15.2 However, tie has conducted an exercise whereby it has concluded that the potential costs of proceeding with a new contractor would be £184.928m.
- 15.3 tie has also obtained an assessment from Cyril Sweet of this cost, based on market rates, which concludes that the cost of proceeding with another contractor would be £177.937m a margin of difference of around 5%. Accordingly, it would appear to be prudent to utilise the tie figure.
- 15.4 In addition, if there are any costs associated with putting the project on hold between York Place and Newhaven (for example, making good any work commenced on this section), they will also require to be taken into account. This will include the costs of compliance with the Edinburgh Tram (Line One) Act 2006 and Edinburgh Tram (Line Two) Act 2006 ("the Tram Acts"), and potential issues associated with land acquisition.
- 15.5 These issues are considered in detail at Appendix 6, but in summary tie's obligations (as the statutory undertaker) under the Tram Acts in relation to reinstating the works to their original position depend very much on the intention behind any proposed hiatus of the works.
- 15.6 The relevant legislation requires tie to remove all rails and make good the road surfaces to the satisfaction of the local authorities. In addition, tie is required to remove structures and make safe the whole area of the works. This is a requirement of the legislation in circumstances where tie "...no longer requires..." the tram facilities built to date.
- 15.7 This would seem to apply where the decision is taken either to permanently abandon the works or to place them in long term storage (awaiting, say, subsequent funding at another date). If, on the other hand, the hiatus is of shorter term, such as to place the remaining works with another contractor, as there would be no sense of abandonment, then temporary measures (such as placing tarmac over the existing rails) may well be acceptable.
- 15.8 It may also be the case, in conditions of longer term abandonment, that tie may wish to demolish more substantial structures to avoid any third party liability.
- 15.9 tie, with CEC, has carried out an exercise to assessment the potential costs of putting on hold the section from York Place to Newhaven: it concludes that this figure would be in the

region of £4,543,000 *[tie to reassess this figure to ascertain whether any further elements ought to be allowed for]*. In the absence of any independent verification of this figure, it has been taken forward to the analysis for present purposes.

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16 **Separation - completion of design**

16.1 A further head of cost in the event of automatic termination in terms of MOV4 is that of completing the design. It was envisaged in the HoTs agreement that:

"The Infraco shall complete the integrated Design from Airport to Newhaven (Phase 1A) to meet the Employer's Requirements."

16.2 It is understood from tie that some progress has been made towards completing the design, but that the progress has been slower than had been anticipated, and the design is still not complete.

16.3 In the event of automatic termination, Infraco's obligations in relation to the design would cease. If the project were to be completed by another contractor, the design would require to be completed, with the associated cost implications.

16.4 The cost associated with completing the design will depend on its status. However, tie has estimated (on a conservative basis) that the potential cost of completing it could be in the region of £5 - £10 million.

17 **Separation - costs of putting the project on hold**

17.1 In the event that automatic termination occurs, it may be that instead of proceeding with another contractor, the project is put on hold for the time being. This approach does not produce a true like for like comparison with the consequences of entering into the Settlement Agreement, in that it does not deliver a network as far as York Place.

17.2 This will require all work to be considered, not just that section between York Place and Newhaven referred to above. Similar considerations in relation to the provisions of the Tram Acts will apply.

17.3 tie has assessed the potential cost associated with putting the whole of the project on hold as £11,935,000 [tie to revisit to ascertain whether any further elements ought to be allowed for].

17.4 These costs are an alternative to engaging a new contractor. They are cumulative with the other costs referred to in the foregoing sections (work carried out to date, claims, counterclaims, payments to CAF, costs of formal dispute resolution proceedings if no agreement can be reached).