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19<sup>th</sup> February 2008

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65 Haymarket Terrace  
Edinburgh  
EH12 5HD

Attention: Damian Sharp

Dear Damian

***SDS Agreement. Management & Supervision Services***

Further to my email of 15 January 2008 and in light of the limited time available before Financial Close of the Infraco Contract I am now submitting formally for your consideration the analysis of additional costs incurred by PB and Halcrow in providing management and supervision services under the terms of the SDS Agreement.

Should you require any clarification of the issues raised I would be pleased to discuss this with you.

Yours sincerely



**SC Reynolds**  
**Project Director**

Encl.

cc. Jason Chandler

*Over a Century of  
Engineering Excellence*

***In association with Halcrow  
Corderoy, Ian White Associates  
Quill Power Communications, SDG***

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PARSONS BRINCKERHOFF LIMITED

**SDS CONTRACT VALUATION**

**SUPPLEMENT 1**

**ADDITIONAL MANAGEMENT & SUPERVISION SERVICES**

**Baseline:- SDS Contract Programme Version 17**

Date 19 February 2008

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## 1 Introduction

PB has previously submitted claims for additional costs for additional management and supervision services for the period to 22 June 2007. These claims assumed a completion date for the SDS Contract as defined by Version 17 of the Contract Programme dated 02 July 2007.

The Version 17 Forecast completion date has changed due to a number of factors outwith PB's control and this has resulted in additional costs for design; for design management; and for project management services. The additional costs for design have already been recorded and submitted to *tie* via the change control process. This report considers the additional costs for design management and for project management. For ease of reference the additional cost analysis has been undertaken in three categories:-

- Additional Costs due to the Delay in Resolution of a Number of "Critical Issues"
- Additional Costs due to the Delay to Completion of the MUDFA programme
- Additional Costs due to the Requirement for Additional services to support *tie* in the Negotiations with the Preferred Bidder

**2 Additional Costs due to the Delay in Resolution of a Number of “Critical Issues”**

**2.1 Scope**

Delays to resolution of a number of issues have contributed to delays to completion of the SDS design. Chart 1 summarises the most significant topics with reference to the minutes from the weekly Critical Issues meetings to date. Copies of these minutes are included as Appendix 1. For each topic the bars show the periods of time over which each topic remained unresolved. Note that resolution of the SRU issue remains outstanding.

Section	Critical Issue	20-Aug	27-Aug	03-Sep	10-Sep	17-Sep	24-Sep	01-Oct	08-Oct	15-Oct	22-Oct	29-Oct	05-Nov	12-Nov	19-Nov	26-Nov	03-Dec	10-Dec	17-Dec
1A	Forth Ports /Lindsay Road	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Ocean Terminal	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Section 1 Bridges	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1B	Leith Walk Footwa	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1C	Picard Place	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	St Andrew Square	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Casino Square	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2A	Haymarket Station Steps	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
5A	SRU	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
S-wide	Drainage	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

**Chart 1 Critical Issues Meeting Minutes – key topics**

To this list should be added the delays to resolution of the detailed design requirements for:-

- The revisions to the design following the abandonment of the EARL scheme. Final resolution was achieved on 16 October 2007.
- The final solution adopted at Balgreen Road. Final resolution remains outstanding due to lack of agreement on the bridge height.
- The revisions following the selection of CAF as the Preferred Bidder for the Tram supply contract. Final resolution was achieved on 20 September 2007.

Delays to the resolution of these topics contributed significantly to the delay to completion of the SDS Contract although the minutes of the Critical Issues Meetings do not refer to these topics in any detail.

Appendix 2 provides a copy of the table of issues holding up progress to completion drawn up by *tie* from the discussion at the Critical Issues Meeting held on 18 January 2008. A column has been added to this table to show a comparison reference with the Critical Issues Register dated 28 June 2007. The relevant entries from that Register have been extracted and are included here as Appendix 3. It is clear that several issues have remained outstanding over the intervening period and this supports PB’s case for additional management and supervision costs.

## 2.2 Impact

PB has conducted an assessment of the impact on the SDS programme of the delay to resolution of the issues highlighted above. Table 1 shows the forecast dates for the last twenty detailed design deliverables from Version 17. This analysis shows:-

- Substantial completion of the detailed design deliverables by 03 December 2007.
- Completion of the remaining Structures design deliverables by 26 March 2008.

Table 2 provides an extract from the weekly deliverables tracker dated 14 December 2007. Table 2 shows:-

- Substantial completion of the detailed design deliverables by 27 February 2008.
- Completion of the remaining Structures design deliverables by 26 August 2008.

## 2.3 Reference Correspondence

Appendix 4 provides copies of correspondence exchanged between *tie* and PB during late June and early July 2007. The correspondence relates to the period when the majority of the Critical Issues which had been the subject of debate since early 2007 had been resolved. The correspondence highlights the need for progress to completion of the SDS Design in order that the future of the Scheme should not be jeopardised.

The PB email of 29 June 2007 sets out PB's proposals for managing risk against a background of continual programme slippage caused primarily by the need to address requests for designs for different options for various parts of the network. The proposals set out in this correspondence are relevant to the case presented by PB in this document.

### **3 Additional Costs due to the Delay to Completion of the MUDFA programme**

#### **3.1 Scope**

Delays in the provision by some Statutory Utility Companies, (SUCs), of information required by SDS to complete Issue-for-Construction (IFC) Drawing packages have been documented previously by PB. Appendix 5 provides the text of an email from PB to *tie* on 28 September 2007. That email provided a summary of the key issues to be addressed from the SDS perspective. Appendix 6 provides an extract from the *tie* Legal Agreement with BT which makes clear at Clause 4 the extent of the obligations assumed by BT for the timely provision of information to a defined level of detail. Similar Agreements are in place with the other SUCs and taken together they demonstrate that PB was entitled to expect better access to MUDFA information than has been experienced in practice.

The IFC delivery programme has also been impacted by the delay to resolution of the Critical Issues, notably in the Forth Ports area and at Picardy Place.

The IFC delivery programme has also been impacted by changes requested by *tie* to achieve better alignment between the MUDFA delivery schedule and the Infracore construction programme.

#### **3.2 Impact**

PB has conducted an assessment of the prolongation of the Utilities IFC. This analysis shows:-

- At version 17 of the SDS programme delivery of all IFC packages would have been complete 23 November 2007. Allowing a period for approval and rework it is reasonable to conclude that the complete IFC scope of work would have been complete by end December 2007.
- The current forecast completion date for the same scope is end March 2007.

## 4 Additional Costs due to the Requirement for Additional services to support *tie* in the Negotiations with the Preferred Bidder

### 4.1 Scope

PB has an obligation under the terms of the SDS Contract to assist *tie* in the technical review of tenders. However, it is clear from both the *tie* Business Case and early versions of the Master Programme that the intent was for this assistance to be provided in the context of a complete SDS design. The delays to completion of the design have resulted in protracted discussions with *tie* and the Preferred Bidder in comparison with what could reasonably have been expected when the SDS Contract was awarded.

It is also clear that the Bidders did not take full advantage of the opportunity for Due Diligence given by *tie* in the period up to selection of the Preferred Bidder. Minute 2.5 of the Critical Issues meeting of 05 October 2007 provides but one reference to this problem.

### 4.2 Impact

Disruption to SDS activities caused by the lack of a clear set of terms of reference for the provision of assistance to *tie* from 25 October onwards has been documented previously by email and by letter from SDS to *tie*.

The impact can be summarised as:-

- Additional time incurred by the Design Team Leaders and the Management Team located in Edinburgh
- Additional expense incurred as travel arrangements were altered to match the requirements of a *tie* meeting schedule which changed many times over the period from 25 October.
- Disruption to other SDS management tasks for ETN and MUDFA scope.

The impact on the SDS programme of the disruption arising from the negotiations with the Preferred Bidder can be considered included in the analysis presented in Section 2 above. In reality a significant amount of additional overtime was worked by the team in order to meet *tie* deadlines. However, with a view to reaching a quick settlement PB is prepared to absorb this cost and it is not proposed that this time be charged to *tie*. On the same basis it is not proposed that the additional travel expenses referred to above be charged to *tie*.

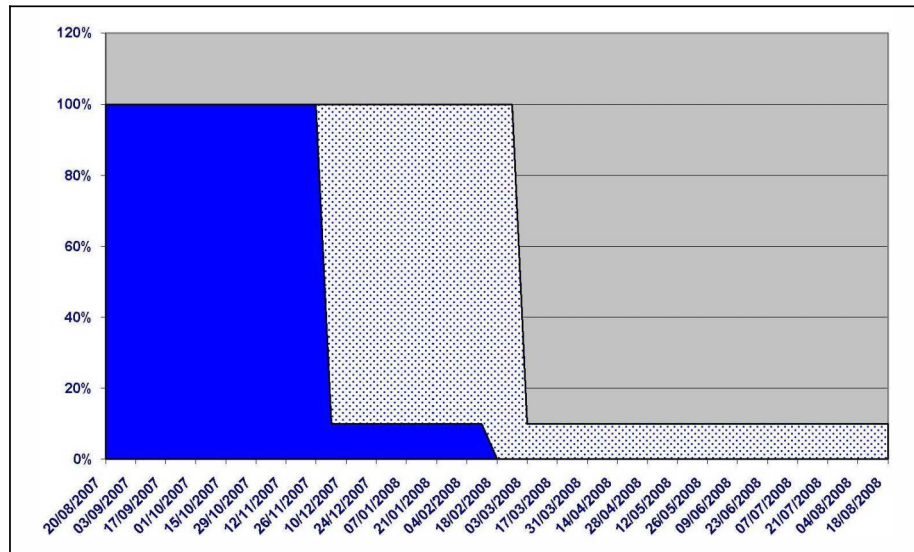


## 5 Analysis

### 5.1 Overview

Chart 2 provides a purely diagrammatic illustration of the consequences of the overall delays to programme on management team effort. The chart is intended to show:-

- The extension of time for the core management team up to the point of substantial completion of the design deliverable programme (27 February 2008 vs 03 December 2007)
- The extension of time for the reduced management team up to the point of completion of the last Structures detailed design package. (26 August 2008 vs 27 February 2008)



**Chart 2 Impact on Programme Completion**

Tables 3 and 4 provide a detailed analysis by individual for the period of prolongation of the SDS programme.

### 5.2 Calculation of Additional Costs

#### 5.2.1 Proposed Methodology

It is proposed that the total sum for additional costs for management and supervision incurred due to the prolongation is calculated as the sum of:-

- Actual costs booked for the period 03 December 2007 to 05 January 2008, plus,
- Estimated costs from 05 January 2008 to completion

### 5.2.2 Actual Hours Booked 03 December 2007 to 05 January 2008

Tables 5 and 6 provide an analysis of actual hours of prolongation booked by the Design Team Leaders and the members of the Management Team located in Edinburgh from 03 December 2007 to 05 January 2008. Table 5 provides the analysis for PB staff and Table 6 for Halcrow staff.

### 5.2.3 Estimated Hours Booked 05 January 2008 to Completion

For the period from 05 January 2008 to completion it is proposed that an estimate of additional costs is derived as follows:-

- Calculate the total number of weeks of extended time for each individual.
- Apply a typical utilisation factor to determine the productive time booked. The factor is intended to take account of leave and other periods of non-productive time. 75% has been assumed for the Edinburgh-based Management Team; 65% for the PB Design Team Leaders; and 75% for the Halcrow Design Team Leaders.
- Assess the proportion of the individual's productive time booked to the provision of additional services through the extended period. The following mechanism is proposed:-

Design Team Leaders	20%
Project Manager	100%
Section Design Managers	100%
Assistant Section Design Managers	100%
Planning, Commercial and Project Controls Staff	100%
Edinburgh Management Team Administration	0%

This mechanism is proposed on the basis that:-

- The Design Team Leaders have only been engaged part-time in the provision of additional services which have been required to assist *tie* in the resolution of the issues described above.
- The duties required to be performed by the Edinburgh Management Team have been prolonged as a direct consequence of the slippage of the SDS Contract end-date.

- Edinburgh Management Team administration is not chargeable separately since the agreed rates for additional services include an administration component

The following refinements are proposed:-

- The proportion of Section 3 SDM Gavin Clement's time booked to the provision of additional services through the extended period is proposed at 0%
- The proportion of Architecture & Depot DTL Ian Brown's time booked to the provision of additional services through the extended period is proposed at 80%<sup>1</sup>
- The proportion of Halcrow Roads DTL Jim Guild's time booked to the provision of additional services through the extended period is proposed at 50%
- The proportion of Halcrow DTL Chris Reid's time booked to the provision of additional services through the extended period is proposed at 50%
- The proportion of Halcrow Structures DTL Colin Walker's time booked to the provision of additional services through the extended period is proposed at 50%
- All time required for Utilities Management and Supervision after novation is assumed to be subject to separate arrangements with *tie* since the MUDFA scope is not subject to novation.

Tables 7 and 8 provide a detailed presentation using this method for the individual Design Team Leaders and for each of the Management Team members located in Edinburgh. Table 7 provides the analysis for PB staff and Table 8 for Halcrow staff. The analysis uses data drawn from the SDS demobilisation plan developed during August 2007 and the latest plan derived from Version 24 of the SDS programme.

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<sup>1</sup> If Ian Brown's time is viewed as design execution rather than design management, (with the additional costs addressed through the change control process), the final total for additional management and supervision services is reduced by £7,551 + £14,026 = £21,577.

#### 5.2.4 Valuation

Tables 9, 10, 11, and 12 provide the valuation for the additional manhours using the SDS Contract Rates for the Provision of Additional Services. In summary:-

##### For the Period 03 December 2007 to 05 January 2008

Category	Price
Design Team Leaders – PB	£40,137
Design Team Leaders – Halcrow	£22,482
Edinburgh Management Team – PB	£81,640
Edinburgh Management Team - Halcrow	£0
<b>Total</b>	<b>£144,259</b>

##### For the Period 05 January 2008 to Completion

Category	Price
Design Team Leaders – PB	£76,136
Design Team Leaders – Halcrow	£64,989
Edinburgh Management Team – PB	£221,874
Edinburgh Management Team - Halcrow	£121,424
<b>Total</b>	<b>£484,422</b>

In summary, the value of the Additional Services provided or planned to be provided through the period from 03 December 2007 to 26 August 2008 equates to **£628,681**.<sup>2</sup>

#### 5.3 Reduction in EMC Scope

The scope of EMC work to be provided under the SDS Contract by PB has changed, resulting in a reduction in scope. Hence, PB is prepared to offer a reduction in contact price totalling **£30,000**.

#### 5.4 Conclusion

PB requests a variation to contract value arising from the analysis set out in this document of **£598,681**.

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<sup>2</sup> This valuation does not include for any services provided by PB Project Director S C Reynolds.

## **TABLES**

Activity ID	Category	Activity Name	Finish
SDS74050	Power	Issue Stray Current Working Party Position Report for External Approval	10-Dec-08
A11120	Sys Eng	Detailed Design Verification and Validation Report	22-Apr-08
SDS74240	Sys Eng	Issue Edinburgh Tram Network Integration Plan (2nd Submission) to tie	23-Apr-08
SDS68170	Sys Eng	Requirements Database Baseline 3 Ready to Issue To tie	23-Apr-08
SDS68180	Sys Eng	Requirements Test Specification Ready to Issue To tie	23-Apr-08
SDS68160	Sys Eng	System Interface Register Baseline Ready to Issue To tie	23-Apr-08
252	Structures - Halcrow	Issue Notification Of Completion Letter- Carrick Knowe Substructure Design Package to tie	26-Mar-08
230	Structures - Halcrow	Issue Notification Of Completion Letter- Carrick Knowe Superstructure Design Package to tie	26-Mar-08
A7170	Structures - Halcrow	Issue Notification Of Completion Letter- Victoria Dock Substructure Detailed Design Package to tie	25-Mar-08
A7030	Structures - Halcrow	Issue Notification Of Completion Letter- Victoria Dock Superstructure Design Package to tie	25-Mar-08
A7500	Structures - Halcrow	Issue Notification Of Completion Letter- Tower Place Bridge Substructure Detailed Design Package to tie	19-Feb-08
A7360	Structures - Halcrow	Issue Notification Of Completion Letter- Tower Place Bridge Superstructure Design Package to tie	19-Feb-08
SDS35800	Structures - PB	Issue Notification Of Completion Letter- Balgreen Road Bridge Package to tie for Comments	15-Feb-08
SDS65190	Structures - PB	Issue Notification Of Completion Letter- Balgreen Road Bridge Package to tie for Comments	15-Feb-08
SDS68150	Sys Eng	System Integration Plan Ready to Issue To tie	16-Jan-08
SDS51200	Structures - PB	Issue Notification Of Completion Letter- Balgreen Road Retaining Wall Package to tie for Comments	04-Jan-08
A1880	Power	Issue Internally TPS System Design Report (TPS 3DDI)	03-Jan-08
SDS36610	Structures - PB	Issue Notification Of Completion Letter- A8 Underpass Superstructure Detailed Design Package to tie for Comments	14-Dec-07
SDS52730	OLE	Issue OLE Base Design to tie	05-Dec-07
SDS68720	Substations	Issue Notification Of Completion Letter- Tram Cathedral Lane Substation Detailed Engineering Drawings To tie	04-Dec-07

**Table 1 Detailed Design Packages Delivery. Version 17 extract**

Activity	Category	Activity Name	Finish
SDS74050	Power	Issue Stray Current Working Party Position Report for External Approval	10-Dec-08
A549570	Substations	Issue Notification Of Completion Letter- Tram Granton Road Substation Planning Submission to tie for Approval	07-Dec-08
A11120	Sys Eng	Detailed Design Verification and Validation Report	24-Sep-08
SDS74240	Sys Eng	Issue Edinburgh Tram Network Integration Plan (2nd Submission) to tie	24-Sep-08
SDS68170	Sys Eng	Requirements Database Baseline 3 Ready to Issue To tie	24-Sep-08
SDS68180	Sys Eng	Requirements Test Specification Ready to Issue To tie	24-Sep-08
SDS68160	Sys Eng	System Interface Register Baseline Ready to Issue To tie	24-Sep-08
A7500	Structures - Halcrow	Issue Notification Of Completion Letter- Tower Place Bridge Substructure Detailed Design Package to tie	17-Sep-08
A7360	Structures - Halcrow	Issue Notification Of Completion Letter- Tower Place Bridge Superstructure Design Package to tie	17-Sep-08
A7170	Structures - Halcrow	Issue Notification Of Completion Letter- Victoria Dock Substructure Detailed Design Package to tie	24-Jul-08
A7030	Structures - Halcrow	Issue Notification Of Completion Letter- Victoria Dock Superstructure Design Package to tie	24-Jul-08
416	Structures - Halcrow	Issue Notification Of Completion Letter- Gogar Burn Retaining Wall One Structure Design Package to tie	23-Jun-08
446	Structures - Halcrow	Issue Notification Of Completion Letter- Gogar Burn Retaining Wall Two Structure Design Package to tie	23-Jun-08
SDS74900	Systems Assurance	Final DD stage issue of HL report to tie	06-Jun-08
SDS74570	Systems Assurance	Final Detailed Design stage issue of DDCS to tie	02-Jun-08
SDS57490	Structures - PB	Issue Notification Of Completion Letter- Depot Access Road Bridge Superstructure Package to tie	22-May-08
SDS35800	Structures - PB	Issue Notification Of Completion Letter- Balgreen Road Bridge Package to tie for Comments	12-May-08
SDS65190	Structures - PB	Issue Notification Of Completion Letter- Balgreen Road Bridge Package to tie for Comments	12-May-08
326	Structures - Halcrow	Issue Notification Of Completion Letter- Gogar Burn Culvert One Structure Design Package to tie	02-May-08
356	Structures - Halcrow	Issue Notification Of Completion Letter- Gogar Burn Culvert Two Structure Design Package to tie	01-May-08
SDS74850	Systems Assurance	Final DD Stage Issue of Safety Analysis to tie	21-Apr-08
SDS35490	Structures - PB	Issue Notification Of Completion Letter- Bard Drive Retaining Wall Package to tie for Comments	14-Apr-08
SDS51200	Structures - PB	Issue Notification Of Completion Letter- Balgreen Road Retaining Wall Package to tie for Comments	11-Apr-08
SDS75000	Systems Assurance	Final Detailed Design Stage Issue of RAM Analysis to tie	07-Apr-08
SDS74860	Systems Assurance	Issue Hazard Log Report to tie	04-Apr-08
386	Structures - Halcrow	Issue Notification Of Completion Letter- Gogar Burn Culvert Three Structure Design Package to tie	28-Mar-08
SDS67220	Power	Final Issue of Systemwide Traction Power Design To tie	26-Mar-08
SDS74540	Systems Assurance	Issue Detailed Design Case For Safety to tie	24-Mar-08
SDS56270	Structures - PB	Issue Notification Of Completion Letter- Murrayfield Training Pitches RW Package to tie for Comments	21-Mar-08
SDS75050	Systems Assurance	Final Detailed Design Stage Issue of RDP to tie	19-Mar-08
SDS74810	Systems Assurance	Final DD Stage Issue of System Safety Management Plan to tie	17-Mar-08
A7690	Structures - Halcrow	Issue Notification Of Completion Letter- Lindsay Road Structure Design Package to tie	17-Mar-08
252	Structures - Halcrow	Issue Notification Of Completion Letter- Carrick Knowe Substructure Design Package to tie	17-Mar-08
230	Structures - Halcrow	Issue Notification Of Completion Letter- Carrick Knowe Superstructure Design Package to tie	17-Mar-08
SDS36610	Structures - PB	Issue Notification Of Completion Letter- A8 Underpass Superstructure Detailed Design Package to tie for Comments	07-Mar-08
SDS74950	Systems Assurance	Final Detailed Design Stage Issue of Reliability Availability Maintainability Plan to tie	28-Feb-08
SDS52730	OLE	Issue OLE Base Design to tie	27-Feb-08
SDS56740	Street Lighting	Issue Notification Of Completion Letter- Street Lighting Design (Inc. Any OLE Combined Pole Design) to tie Section	27-Feb-08
SDS56760	Street Lighting	Issue Notification Of Completion Letter- Street Lighting Design (Inc. Any OLE Combined Pole Design) to tie Section	27-Feb-08
SDS51450	Structures - PB	Issue Notification Of Completion Letter- Murrayfield Stop Retaining Walls Package to tie for Comments	22-Feb-08
A27780	Tram Stops	Issue Notification Of Completion Letter- Edinburgh Airport Tram Stop Design to tie	15-Feb-08
SDS74030	Power	Issue Stray Current Test Site Drawings for External Approval	13-Feb-08
SDS52980	Traffic Modelling	Issue Traction Power Simulation Report	13-Feb-08
SDS67060	Systems Assurance	Issue Safety Analysis to tie	12-Feb-08
SDS74960	Systems Assurance	Issue RAM Analysis to tie	11-Feb-08
A549970	Substations	Issue Notification Of Completion Letter- Tram Eastfield Road Substation Planning Submission to tie	04-Feb-08
A25140	Tram Stops	Issue Notification Of Completion Letter- Ocean Terminal Tram Stop Design to tie	31-Jan-08
SDS24490	Roads	Issue Notification Of Completion Letter- Roads Design to tie for Approval Section 1A	28-Jan-08
SDS23670	Traffic Modelling	Issue Report of Simulation Results to tie	28-Jan-08
SDS56730	Landscaping	Issue Notification Of Completion Letter- Hard & Soft Landscaping Design to tie Section 7A	25-Jan-08
SDS75010	Systems Assurance	Issue RDP to tie	21-Jan-08
SDS70990	Roads	Issue Drainage Design Completion Letter to tie for Approval Section 1A	17-Jan-08
SDS57210	Structures - PB	Issue Notification Of Completion Letter- Barkhead Drive Retaining Wall Package to tie for Comments	17-Jan-08
SDS56160	Landscaping	Issue Notification Of Completion Letter- Hard & Soft Landscaping Design to tie Section 1A	17-Jan-08

**Table 2 Detailed Design Packages Delivery. 14 Dec 07 Tracker extract**

Grade	Role	Name	V17	V23	PROJECT CODES
GD	Planning Drawings	STACY, MUNGO BANABAN	27/02/2000	28/02/2000	
	Track Infrastructure	GOODYEAR, ANTHONY JOHN (TONY)	05/12/2007	27/02/2000	
PD	Measurement & Survey	BROWN, IAN SINCLAIR (IAN)	05/12/2007	27/02/2000	
	Traffic Modelling	FIRTH, RICHARD	05/12/2007	28/02/2000	
	Simulations	KELLAND, ANDREW WILLIAM (ANDREW)	05/12/2007	28/02/2000	
	Structures	MCQUADE, PAUL MARTIN	27/02/2000	27/02/2000	
	Systems Engineering	PARK, ANGLUS	05/12/2007	27/02/2000	
	Track & Alignment	JORY, ANTHONY (TONY)	05/12/2007	27/02/2000	
	Utilities	PLUSE, DAVID GEORGE	31/12/2007	31/03/2000	
SD	OLE	DAVIES, PETER GLYN	05/12/2007	27/02/2000	
		JANANI, FARHAD (FARHAD)	05/12/2007	27/02/2000	
	Street Lighting	RILEY, PAUL	05/12/2007	27/02/2000	
	Structures	GROVES, ANDREW KELVIN (ANDREW)	27/02/2000	28/02/2000	
	Systems & Communications	GOLDSWORTHY, MICHAEL ROBIN (MIKE)	05/12/2007	27/02/2000	
	Track Auxiliary	REEVES, MICHAEL John (MIKE)	05/12/2007	27/02/2000	
	Traction Power	EVANS, GRAEME	05/12/2007	27/02/2000	
GD		CLEMENT, GAVIN (GAVIN)	05/12/2007	27/02/2000	
		DYSON, JONATHON (JONATHON)	28/02/2000	28/02/2007	
		MATTHEWS, VICTORIA JANE (VICKY)	05/12/2007	27/02/2000	
PD		CHANDLER, JASON ROY	05/12/2007	31/03/2000	
		DIXON, ANDREW (ANDY)	05/12/2007	27/02/2000	
		DOLAN, ALAN (ALAN)	31/12/2007	31/03/2000	
		ENNION, BRUCE HAROLD TURNER (BRUCE)	05/12/2007	27/02/2000	
	Commercial	MASON, CHRISTOPHER PAUL (CHRIS)	31/03/2007	31/03/2007	
		GIBB, DAVID	31/12/2007	31/03/2000	
SD		BISHOP, ANTHONY PATRICK (TONY)	28/02/2007	31/03/2000	
		CONROY, MARTIN JAMES	05/12/2007	27/02/2000	
		CURRIE, MALCOLM Fraser	31/12/2007	31/12/2007	
		JONES, CARLA (CARLA)	05/12/2007	31/03/2000	
		NEY, SCOTT M	31/03/2000	31/03/2000	
		SHUDALL, KATE	05/12/2007	27/02/2000	
TS	Utilities	JENNINGS, JEFFREY NEIL (JEFF)	31/12/2007	31/03/2000	
		BENN, PAULINE ANN			
		BRISTOW, Ms. SALLY (SALLY)			
		CHLUPKA, EKE NIELS (NIELS)			
		PATERSON, CLAIRE			
		WATSON, FENELLA			

Table 3 Prolongation by Individual. PB Staff





Sum of Claim Hours				Week							
Location	Title	Role	Employee/Supplier	03-Dec	10-Dec	17-Dec	24-Dec	31-Dec	07-Jan	Grand Total	
DTL	GD	Planning Drawings	STACY, MUNGO BANABAN	0	0	0				0	
		Tram Procurement	GOODYEAR, ANTHONY JOHN (TONY)	7.5	7.5	11		3		29	
	PD	Architecture & Depot Structures	BROWN, IAN SINCLAIR (IAN)	24.288	25.712	24.744	4.736				79.48
			MCQUADE, PAUL MARTIN	0	0						0
			Systems Engineering	PARK, ANGUS	22.5	22.5	3.75				48.75
			Track & Alignment	JORY, ANTHONY (TONY)	28	22	14				64
			Utilities	PLUSE, DAVID GEORGE	0	0	0				0
	SD	OLE		DAVIES, PETER GLYN	23	27	5				55
				JANANI, FARHAD (FARHAD)	33	22.5	20	3.5	2		81
			Street Lighting	RILEY, PAUL		11.25	7.5				18.75
			Structures	GROVES, ANDREW KELVIN (ANDREW)	0	0	0	0	0		0
			Track Auxilliary	REEVES, MICHAEL John (MIKE)	22.5	11.25	2				35.75
			Traction Power	EVANS, GRAEME	18.75	19.5	17	3	11.25		69.5
	<b>DTL Total</b>				<b>179.538</b>	<b>169.212</b>	<b>104.994</b>	<b>11.236</b>	<b>16.25</b>		<b>481.23</b>
Edinburgh	GD	-	CLEMENT, GAVIN (GAVIN)	0	0	0	0			0	
			DYSON, JONATHON (JONATHON)	0.5	8	7.5				16	
			MATTHEWS, VICTORIA JANE (VICKY)		37.5	37.5		22.5		97.5	
	PD	-	CHANDLER, JASON ROY	37.5	37.5	37.5	7.5	22.5	37.5		180
			DIXON, ANDREW (ANDY)	33.75	26.25	22.5					82.5
			ENNION, BRUCE HAROLD TURNER (BRUCE)	48	80	56					184
			MASON, CHRISTOPHER PAUL (CHRIS)	3.03	2.92	1.9	2				9.85
			Commercial	GIBB, DAVID	0	0	0	0			0
		Utilities	DOLAN, ALAN (ALAN)	0	0	0				0	
	SD	-	BISHOP, ANTHONY PATRICK (TONY)	40	40	40					120
			CONROY, MARTIN JAMES	37.5	37.5	34	7.5				116.5
			CURRIE, MALCOLM Fraser	0	0	0					0
			JONES, CARLA (CARLA)	37.5	18.75	18.75	7.5	22.5			105
			NEY, SCOTT M	0	0	0					0
		SHUDALL, KATE	37.5	37.5	30					105	
		Utilities	JENNINGS, JEFFREY NEIL (JEFF)	0	0	0				0	
		KELLY, TOM	10						10		
<b>Edinburgh Total</b>				<b>285.28</b>	<b>325.92</b>	<b>285.65</b>	<b>24.5</b>	<b>67.5</b>	<b>37.5</b>	<b>1026.35</b>	
<b>Grand Total</b>				<b>464.818</b>	<b>495.132</b>	<b>390.644</b>	<b>35.736</b>	<b>83.75</b>	<b>37.5</b>	<b>1507.58</b>	

Table 5 Actual Prolongation Hours, 03 Dec 2007 to 05 Jan 2008. PB Staff

Sum of Claim Hours				Week					Grand Total
Location	Title	Role	Employee/Supplier	03-Dec	10-Dec	17-Dec	24-Dec	31-Dec	
DTL	GD	Utilities support	Forbes, Katie	0	0	0	0	0	0
	PD	Drainage	Shackleton, Ralph	0	0	0	0	0	0
		Environment	Dennis, Kat	30.5	13	24.5	0	0	68
		Geotechnical	Raeseide, David	0	0	0	0	0	0
		Landscaping	Fox, Kate	0	0	0	0	0	0
		Roads	Bissett, Malcolm	18.5	12	2	0	0	32.5
			Guild, Jim	25.55	26.6	26.6	2.8	0	81.55
		Structures	Walker, Colin	0	0	0	0	0	0
		Utilities	Reid, Chris	0	0	0	0	0	0
	SD	Roads	Astbury, Ian	23.45	20.65	22.4	0	0	66.5
<b>DTL Total</b>				<b>98</b>	<b>72.25</b>	<b>75.5</b>	<b>2.8</b>	<b>0</b>	<b>248.55</b>
Edinburgh	GD	Approvals & consents	Mullins, Darragh	0	0	0	0	0	0
			Wright, Ailsa	0	0	0	0	0	0
		Commercial support	Phillips, Ashley	0	0	0	0	0	0
	PD	Approvals & consents	Smith, Stefano	0	0	0	0	0	0
		Commercial	Segar, David	0	0	0	0	0	0
		Project director	Simmons, David	0	0	0	0	0	0
	Project manager	Perry, Kevin	0	0	0	0	0	0	
SD	Approvals & consents	Mentiplay, Laurie	0	0	0	0	0	0	
<b>Edinburgh Total</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total</b>				<b>98</b>	<b>72.25</b>	<b>75.5</b>	<b>2.8</b>	<b>0</b>	<b>248.55</b>

Table 6 Actual Prolongation Hours, 03 Dec 2007 to 05 Jan 2008. Halcrow Staff

Grade	Role	Name	After 05		Weeks Extension	Utilisation	Proportion	Hours	
			Jan 08	V23					
GD	Planning Drawings	STACY, MUNGO BANABAN	27/02/2008	30/08/2008	26	65%	20%	129	
	Tram Procurement	GOODYEAR, ANTHONY JOHN (TONY)	05/01/2008	27/02/2008	8	65%	20%	37	
PD	Architecture & Depot	BROWN, IAN SINCLAIR (IAN)	05/01/2008	27/02/2008	8	65%	80%	148	
	Traffic Modelling	FIRTH, RICHARD	05/01/2008	30/06/2008	25	65%	20%	123	
	Simulations	KELLAND, ANDREW WILLIAM (ANDREW)	05/01/2008	27/03/2008	12	65%	20%	57	
	Structures	MCQUADE, PAUL MARTIN	27/02/2008	27/02/2008	0	65%	20%	0	
	Systems Engineering	PARK, ANGUS	05/01/2008	27/02/2008	8	65%	20%	37	
	Track & Alignment	JORY, ANTHONY (TONY)	05/01/2008	27/02/2008	8	65%	20%	37	
	Utilities	PLUSE, DAVID GEORGE	05/01/2008	28/01/2008	3	65%	20%	16	
	SD	OLE	DAVIES, PETER GLYN	05/01/2008	27/02/2008	8	65%	20%	37
		JANANI, FARHAD (FARHAD)	05/01/2008	27/02/2008	8	65%	20%	37	
	Street Lighting	RILEY, PAUL	05/01/2008	27/02/2008	8	65%	20%	37	
	Structures	GROVES, ANDREW KELVIN (ANDREW)	27/02/2008	30/08/2008	26	65%	20%	129	
	Systems & Communications	GOLDSWORTHY, MICHAEL ROBIN (MIKE)	05/01/2008	27/02/2008	8	65%	20%	37	
	Track Auxilliary	REEVES, MICHAEL John (MIKE)	05/01/2008	27/02/2008	8	65%	20%	37	
	Traction Power	EVANS, GRAEME	05/01/2008	27/02/2008	8	65%	20%	37	
									<b>934</b>
	GD		CLEMENT, GAVIN (GAVIN)	05/01/2008	27/02/2008	8	75%	0%	0
		DYSON, JONATHON (JONATHON)	05/01/2008	30/09/2007				0	
		MATTHEWS, VICTORIA JANE (VICKY)	05/01/2008	27/02/2008	8	75%	100%	213	
PD		CHANDLER, JASON ROY	05/01/2008	31/03/2008	12	75%	100%	346	
		DIXON, ANDREW (ANDY)	05/01/2008	27/02/2008	8	75%	100%	213	
		DOLAN, ALAN (ALAN)	05/01/2008	28/01/2008	3	75%	100%	92	
		ENNION, BRUCE HAROLD TURNER (BRUCE)	05/01/2008	27/02/2008	8	75%	100%	213	
		MASON, CHRISTOPHER PAUL (CHRIS)	05/01/2008	31/08/2007				0	
SD	Commercial	GIBB, DAVID	05/01/2008	31/03/2008	12	75%	100%	346	
		BISHOP, ANTHONY PATRICK (TONY)	05/01/2008	31/01/2008	4	75%	100%	104	
		CONROY, MARTIN JAMES	05/01/2008	27/02/2008	8	75%	100%	213	
		CURRIE, MALCOLM Fraser	05/01/2008	31/12/2007				0	
		JONES, CARLA (CARLA)	05/01/2008	31/03/2008	12	75%	100%	346	
		NEY, SCOTT M	31/03/2008	31/03/2008	0	75%	100%	0	
		SHUDALL, KATE	05/01/2008	27/02/2008	8	75%	100%	213	
	Utilities	JENNINGS, JEFFREY NEIL (JEFF)	05/01/2008	31/03/2008	12	75%	100%	346	
								<b>2644</b>	

**Table 7 Estimated Prolongation Hours, 05 Jan 2008 to Completion. PB**

Grade	Role	Name	After 05		Weeks Extension	Utilisation	Proportion	Hours
			Jan 08	V23				
GD	Utilities support	Forbes, Katie	05/01/2008	28/01/2008	3	75%	20%	18
PD	Roads	Bissett, Malcolm						
	Environment	Dennis, Kat	05/01/2008	10/03/2008	9	75%	20%	52
	Landscaping	Fox, Kate	05/01/2008	29/02/2008	8	75%	20%	44
	Roads	Guild, Jim	05/01/2008	29/02/2008	8	75%	50%	110
	Geotechnical	Raeside, David	11/01/2008	29/02/2008	7	75%	20%	39
	Utilities	Reid, Chris	05/01/2008	28/01/2008	3	75%	50%	46
	Drainage	Shackleton, Ralph	31/01/2008	29/02/2008	4	75%	20%	23
	Structures	Walker, Colin	21/03/2008	15/09/2008	25	75%	50%	358
SD								
								<b>692</b>
GD	Approvals & consents	Mullins, Darragh	05/01/2008	19/06/2008	24	75%	10%	67
	Commercial support	Phillips, Ashley	21/03/2008	12/08/2008	21	75%	20%	116
	Approvals & consents	Wright, Ailsa	05/01/2008	19/06/2008	24	75%	10%	67
PD	Project manager	Perry, Kevin	21/03/2008	15/09/2008	25	75%	75%	536
	Commercial	Segar, David	21/03/2008	12/08/2008	21	75%	20%	116
	Project director	Simmons, David	21/03/2008	12/08/2008	21	75%	20%	116
	Approvals & consents	Smith, Stefano	25/12/2007	19/06/2008	25	75%	10%	71
SD	Approvals & consents	Mentiplay, Laurie	05/01/2008	19/06/2008	24	75%	75%	500
								<b>1588</b>

**Table 8 Estimated Prolongation Hours, 05 Jan 2008 to Completion. Halcrow**

Sum of Claim Price				Week					
Location	Title	Role	Employee/Supplier	03-Dec	10-Dec	17-Dec	24-Dec	31-Dec	Grand Total
DTL	GD	Planning Drawings	STACY, MUNGO BANABAN	£0	£0	£0			£0
		Tram Procurement	GOODYEAR, ANTHONY JOHN (TONY)	£413	£413	£605		£165	£1,595
	PD	Architecture & Depot	BROWN, IAN SINCLAIR (IAN)	£2,307	£2,443	£2,351	£450		£7,551
		Structures	MCQUADE, PAUL MARTIN	£0	£0				£0
		Systems Engineering	PARK, ANGUS	£2,138	£2,138	£356			£4,631
		Track & Alignment	JORY, ANTHONY (TONY)	£2,660	£2,090	£1,330			£6,080
		Utilities	PLUSE, DAVID GEORGE	£0	£0	£0			£0
	SD	OLE	DAVIES, PETER GLYN	£1,794	£2,106	£390			£4,290
			JANANI, FARHAD (FARHAD)	£2,574	£1,755	£1,560	£273	£156	£6,318
		Street Lighting	RILEY, PAUL		£878	£585			£1,463
		Structures	GROVES, ANDREW KELVIN (ANDREW)	£0	£0	£0	£0	£0	£0
		Track Auxilliary	REEVES, MICHAEL John (MIKE)	£1,755	£878	£156			£2,789
		Traction Power	EVANS, GRAEME	£1,463	£1,521	£1,326	£234	£878	£5,421
<b>DTL Total</b>				<b>£15,103</b>	<b>£14,220</b>	<b>£8,659</b>	<b>£957</b>	<b>£1,199</b>	<b>£40,137</b>
Edinburgh	GD	-	CLEMENT, GAVIN (GAVIN)	£0	£0	£0	£0		£0
		-	DYSON, JONATHON (JONATHON)	£28	£440	£413			£880
		-	MATTHEWS, VICTORIA JANE (VICKY)		£2,063	£2,063		£1,238	£5,363
	PD	-	CHANDLER, JASON ROY	£3,563	£3,563	£3,563	£713	£2,138	£13,538
		-	DIXON, ANDREW (ANDY)	£3,206	£2,494	£2,138			£7,838
		-	ENNION, BRUCE HAROLD TURNER (BRUCE)	£4,560	£7,600	£5,320			£17,480
		-	MASON, CHRISTOPHER PAUL (CHRIS)	£288	£277	£181	£190		£936
		Commercial	GIBB, DAVID	£0	£0	£0	£0		£0
	Utilities	DOLAN, ALAN (ALAN)	£0	£0	£0			£0	
	SD	-	BISHOP, ANTHONY PATRICK (TONY)	£3,120	£3,120	£3,120			£9,360
		-	CONROY, MARTIN JAMES	£2,925	£2,925	£2,652	£585		£9,087
		-	CURRIE, MALCOLM Fraser	£0	£0	£0			£0
		-	JONES, CARLA (CARLA)	£2,925	£1,463	£1,463	£585	£1,755	£8,190
-		NEY, SCOTT M	£0	£0	£0			£0	
-		SHUDALL, KATE	£2,925	£2,925	£2,340			£8,190	
Utilities		JENNINGS, JEFFREY NEIL (JEFF)	£0	£0	£0			£0	
	KELLY, TOM	£780					£780		
<b>Edinburgh Total</b>				<b>£24,319</b>	<b>£26,869</b>	<b>£23,250</b>	<b>£2,073</b>	<b>£5,130</b>	<b>£81,640</b>
<b>Grand Total</b>				<b>£39,422</b>	<b>£41,088</b>	<b>£31,909</b>	<b>£3,029</b>	<b>£6,329</b>	<b>£121,777</b>

Table 9 Actual Price 03 Dec 2007 to 05 Jan 2008. PB Staff

Grade	Rate	Role	Name	After 05 Jan 08	V23	Weeks Extension	Utilisation	Proportion	Prbce
GD	£55.00	Planning Drawings	STACY, MUNGO BANABAN	27/02/2008	30/08/2008	26	65%	20%	£ 7,086
	£55.00	Tram Procurement	GOODYEAR, ANTHONY JOHN (TONY)	05/01/2008	27/02/2008	8	65%	20%	£ 2,030
PD	£95.00	Architecture & Depot	BROWN, IAN SINCLAIR (IAN)	05/01/2008	27/02/2008	8	65%	80%	£ 14,026
	£95.00	Traffic Modelling	FIRTH, RICHARD	05/01/2008	30/06/2008	25	65%	20%	£ 11,710
	£95.00	Simulations	KELLAND, ANDREW WILLIAM (ANDREW)	05/01/2008	27/03/2008	12	65%	20%	£ 5,425
	£95.00	Structures	MCQUADE, PAUL MARTIN	27/02/2008	27/02/2008	0	65%	20%	£ -
	£95.00	Systems Engineering	PARK, ANGUS	05/01/2008	27/02/2008	8	65%	20%	£ 3,507
	£95.00	Track & Alignment	JORY, ANTHONY (TONY)	05/01/2008	27/02/2008	8	65%	20%	£ 3,507
	£95.00	Utilities	PLUSE, DAVID GEORGE	05/01/2008	28/01/2008	3	65%	20%	£ 1,522
SD	£78.00	OLE	DAVIES, PETER GLYN	05/01/2008	27/02/2008	8	65%	20%	£ 2,879
	£78.00		JANANI, FARHAD (FARHAD)	05/01/2008	27/02/2008	8	65%	20%	£ 2,879
	£78.00	Street Lighting	RILEY, PAUL	05/01/2008	27/02/2008	8	65%	20%	£ 2,879
	£78.00	Structures	GROVES, ANDREW KELVIN (ANDREW)	27/02/2008	30/08/2008	26	65%	20%	£ 10,049
	£78.00	Systems & Communications	GOLDSWORTHY, MICHAEL ROBIN (MIKE)	05/01/2008	27/02/2008	8	65%	20%	£ 2,879
	£78.00	Track Auxiliary	REEVES, MICHAEL John (MIKE)	05/01/2008	27/02/2008	8	65%	20%	£ 2,879
	£78.00	Traction Power	EVANS, GRAEME	05/01/2008	27/02/2008	8	65%	20%	£ 2,879
									<b>£ 76,136</b>
GD	£55.00	-	CLEMENT, GAVIN (GAVIN)	05/01/2008	27/02/2008	8	75%	0%	£ -
	£55.00		DYSON, JONATHON (JONATHON)	05/01/2008	30/09/2007				£ -
	£55.00		MATTHEWS, VICTORIA JANE (VICKY)	05/01/2008	27/02/2008	8	75%	100%	£ 11,712
PD	£95.00		CHANDLER, JASON ROY	05/01/2008	31/03/2008	12	75%	100%	£ 32,826
	£95.00		DIXON, ANDREW (ANDY)	05/01/2008	27/02/2008	8	75%	100%	£ 20,230
	£95.00		DOLAN, ALAN (ALAN)	05/01/2008	28/01/2008	3	75%	100%	£ 8,779
	£95.00		ENNION, BRUCE HAROLD TURNER (BRUCE)	05/01/2008	27/02/2008	8	75%	100%	£ 20,230
	£95.00	Commercial	MASON, CHRISTOPHER PAUL (CHRIS)	05/01/2008	31/08/2007				£ -
SD	£95.00		GIBB, DAVID	05/01/2008	31/03/2008	12	75%	100%	£ 32,826
	£78.00		BISHOP, ANTHONY PATRICK (TONY)	05/01/2008	31/01/2008	4	75%	100%	£ 8,148
	£78.00		CONROY, MARTIN JAMES	05/01/2008	27/02/2008	8	75%	100%	£ 16,610
	£78.00		CURRIE, MALCOLM Fraser	05/01/2008	31/12/2007				£ -
	£78.00		JONES, CARLA (CARLA)	05/01/2008	31/03/2008	12	75%	100%	£ 26,952
	£78.00		NEY, SCOTT M	31/03/2008	31/03/2008	0	75%	100%	£ -
	£78.00		SHUDALL, KATE	05/01/2008	27/02/2008	8	75%	100%	£ 16,610
£78.00	Utilities	JENNINGS, JEFFREY NEIL (JEFF)	05/01/2008	31/03/2008	12	75%	100%	£ 26,952	
									<b>£221,874</b>

Table 10 Estimated Price 05 Jan 208 to Completion. PB Staff

Sum of Claim Price				Week					Grand Total
Location	Title	Role	Employee/Supplier	03-Dec	10-Dec	17-Dec	24-Dec	31-Dec	
DTL	GD	Utilities support	Forbes, Katie	£ -	£ -	£ -	£ -	£ -	£ -
	PD	Drainage	Shackleton, Ralph	£ -	£ -	£ -	£ -	£ -	£ -
		Environment	Dennis, Kat	£ 2,898	£ 1,235	£ 2,328	£ -	£ -	£ 6,460
		Geotechnical	Raeside, David	£ -	£ -	£ -	£ -	£ -	£ -
		Landscaping	Fox, Kate	£ -	£ -	£ -	£ -	£ -	£ -
		Roads	Bissett, Malcolm	£ 1,758	£ 1,140	£ 190	£ -	£ -	£ 3,088
			Guild, Jim	£ 2,427	£ 2,527	£ 2,527	£ 266	£ -	£ 7,747
		Structures	Walker, Colin	£ -	£ -	£ -	£ -	£ -	£ -
	Utilities	Reid, Chris	£ -	£ -	£ -	£ -	£ -	£ -	
SD	Roads	Astbury, Ian	£ 1,829	£ 1,611	£ 1,747	£ -	£ -	£ 5,187	
<b>DTL Total</b>				<b>£ 8,911</b>	<b>£ 6,513</b>	<b>£ 6,792</b>	<b>£ 266</b>	<b>£ -</b>	<b>£ 22,482</b>
Edinburgh	GD	Approvals & consents	Mullins, Darragh	£ -	£ -	£ -	£ -	£ -	£ -
			Wright, Ailsa	£ -	£ -	£ -	£ -	£ -	£ -
		Commercial support	Phillips, Ashley	£ -	£ -	£ -	£ -	£ -	£ -
	PD	Approvals & consents	Smith, Stefano	£ -	£ -	£ -	£ -	£ -	£ -
		Commercial	Segar, David	£ -	£ -	£ -	£ -	£ -	£ -
		Project director	Simmons, David	£ -	£ -	£ -	£ -	£ -	£ -
		Project manager	Perry, Kevin	£ -	£ -	£ -	£ -	£ -	£ -
SD	Approvals & consents	Mentiplay, Laurie	£ -	£ -	£ -	£ -	£ -	£ -	
<b>Edinburgh Total</b>				<b>£ -</b>	<b>£ -</b>	<b>£ -</b>	<b>£ -</b>	<b>£ -</b>	<b>£ -</b>
<b>Grand Total</b>				<b>£ 8,911</b>	<b>£ 6,513</b>	<b>£ 6,792</b>	<b>£ 266</b>	<b>£ -</b>	<b>£ 22,482</b>

Table 11 Actual Price 03 Dec 2007 to 05 Jan 2008. Halcrow Staff

Grade	Rate	Role	Name	After 05 Jan 08	V23	Weeks Extension	Utilisation	Proportion	Prbce
GD	£ 55.00	Utilities support	Forbes, Katie	05/01/2008	28/01/2008	3	75%	20%	£ 1,017
	£ 55.00								
PD	£ 95.00	Roads	Bissett, Malcolm						£ -
	£ 95.00	Environment	Dennis, Kat	05/01/2008	10/03/2008	9	75%	20%	£ 4,962
	£ 95.00	Landscaping	Fox, Kate	05/01/2008	29/02/2008	8	75%	20%	£ 4,199
	£ 95.00	Roads	Guild, Jim	05/01/2008	29/02/2008	8	75%	50%	£ 10,497
	£ 95.00	Geotechnical	Raeside, David	11/01/2008	29/02/2008	7	75%	20%	£ 3,741
	£ 95.00	Utilities	Reid, Chris	05/01/2008	28/01/2008	3	75%	50%	£ 4,390
	£ 95.00	Drainage	Shackleton, Ralph	31/01/2008	29/02/2008	4	75%	20%	£ 2,214
	£ 95.00	Structures	Walker, Colin	21/03/2008	15/09/2008	25	75%	50%	£ 33,971
SD	£ 78.00								
	£ 78.00								
									<b>£ 64,989</b>
GD	£ 55.00								
	£ 55.00	Approvals & consents	Mullins, Darragh	05/01/2008	19/06/2008	24	75%	10%	£ 3,668
	£ 55.00	Commercial support	Phillips, Ashley	21/03/2008	12/08/2008	21	75%	20%	£ 6,364
	£ 55.00	Approvals & consents	Wright, Ailsa	05/01/2008	19/06/2008	24	75%	10%	£ 3,668
PD	£ 95.00								
	£ 95.00	Project manager	Perry, Kevin	21/03/2008	15/09/2008	25	75%	75%	£ 50,956
	£ 95.00	Commercial	Segar, David	21/03/2008	12/08/2008	21	75%	20%	£ 10,993
	£ 95.00	Project director	Simmons, David	21/03/2008	12/08/2008	21	75%	0%	£ -
	£ 95.00	Approvals & consents	Smith, Stefano	25/12/2007	19/06/2008	25	75%	10%	£ 6,756
	£ 95.00								
SD	£ 78.00	Approvals & consents	Mentiplay, Laurie	05/01/2008	19/06/2008	24	75%	75%	£ 39,017
	£ 78.00								
TS	£ -								
									<b>£ 121,424</b>

Table 12 Estimated Price 05 Jan 208 to Completion. Halcrow Staff



## **APPENDIX 1**

### **Minutes of Critical Issues Meetings**



**Tram Project – Minutes from Critical Issues**

**07/09/07**

**McAdam Room, 1<sup>st</sup> Floor City Point**

**Present:**

David Crawley (DC)		Barry Cross (BC)	<b>tie</b>
Lindsay Murphy(LMu)	<b>tie</b>	Susan Clark (SC)	<b>tie</b>
Kirsty Wilson (KW)	<b>tie</b>	Alan Dolan (AD)	<b>SDS</b>
Andy Conway(AC)	<b>CEC</b>	Bruce Ennion (BE)	<b>SDS</b>
Ruaridh Connor (RC)	<b>tie</b>	Scott Ney (SN)	<b>SDS</b>
<b>Apologies:-</b>			
Steven Bell	<b>tie</b>	Gavin Clement	<b>SDS</b>
Kate Shudall	<b>SDS</b>	Jason Chandler	<b>SDS</b>

		Who	When	Status
	<b>CRITICAL Design Locations</b>			
<b>1</b>	<b>Forth Ports sections 1A</b>			
	Note Barry Cross to lead negotiations with Forth Ports	<b>tie</b>		<b>ongoing</b>
	<b>tie</b> to consider revision of design programme to allow detailed design iteration to facilitate delivery of Forth Ports Agreement(s). BC assess and inform of process required to allow programme revision and appropriate instruction of SDS taking account of whole project impact including impact on MUDFA.	<b>BC</b>		<b>ongoing</b>
<b>1.1</b>	<b>Lindsay Road</b>			
<b>1.1.1</b>	SDS has prepared the change estimate and will progress on receipt of the change order.			
<b>1.1.2</b>	<b>tie</b> to confirm change estimate receipt and issue the change order.	<b>tie</b>	<b>By 14/09/07</b>	<b>ongoing</b>
<b>1.1.3</b>	Delay in the programme at Lindsay Road it will delay the rest of section 1A.			
<b>1.2</b>	<b>Ocean Terminal</b>			
<b>1.2.1</b>	Proposed changes issued by Trudi Craggs. Tram alignment is set. Roads design and materials specification to be agreed with FP	<b>BC</b>		<b>ongoing</b>
<b>1.2.2</b>	MUDFA need to proceed at risk pending any change arising from 1.1 above.	<b>Tie (SB)</b>		<b>Note</b>
<b>1.3</b>	<b>Section 1 Bridges</b>			
<b>1.3.1</b>	Change notice received by SDS and a revised estimate is pending.	<b>SDS</b>		<b>Ongoing</b>
<b>1.3.2</b>	David Crawley is meeting with Jim Greave (CEC head of Transport) today which effects structures and bridges and	<b>DC</b>	<b>7/09/07</b>	

	how to take forward VE process			
<b>2</b>	<b>Section 1B</b>			
<b>2.1</b>	<b>Leith Walk Substation</b>			
	No issues effecting design at present			
<b>2.2</b>	<b>Reinstatement Works</b>			
<b>2.2.1</b>	Concern raised by CEC regarding scale of reinstatement	<b>SN</b>	<b>11/09/07</b>	
<b>2.2.2</b>	Scott Ney to discuss with R designer to inform CEC and allow CEC to consider potential to fund increased area to be resurface as part of roads improvement and to provide continuity. Definition and specification of temp reinstatement will from part of the discussions			
<b>3</b>	<b>Section 1C</b>			
<b>3.1</b>	<b>Picardy Place</b>			
<b>3.1.1</b>	SDS letter states delay to consultation process.			<b>NOTE</b>
<b>3.1.2</b>	TSS has carried out an alternative design but there were problems which require further iteration to consider moving track south. CEC will make decision following full comparison with SDS gyratory proposal. Costs coming through from MUDFA. All information from TSS required for meeting on 18th JRC to run model Based on Gyratory at present.	<b>TSS JRC</b>	<b>18/09/07 18/09/07</b>	
<b>3.2</b>	<b>St Andrew Square</b>			
<b>3.2.1</b>	Information required from CEC Capital Streets project this has not been forthcoming. CEC should receive a drawing today which will resolve this.	<b>AC</b>	<b>7/09/07</b>	
<b>3.2.2</b>	Advanced traffic signal design required from SDS	<b>SN</b>	<b>7/09/07</b>	
<b>4</b>	<b>Section 2A</b>			
<b>4.1</b>	<b>Haymarket Steps</b>			
<b>4.1.1</b>	Network Rail say they don't need the steps SDS query whether this requires their deletion in which case a change will be required. Tony Glazebrook to clarify	<b>TG</b>	<b>11/09/07</b>	
<b>5</b>	<b>Section 5A</b>			
<b>5.1</b>	<b>SRU</b>			
<b>5.1.1</b>	Not moved on. Barry Cross to Lead resolution. Still holding up prior approval	<b>BC</b>		<b>ONGOING (Urgent)</b>
<b>5.2</b>	<b>Balgreen</b>			
<b>5.2.1</b>	Progressing note next network rail meeting 4 October 2007			<b>Note</b>
<b>6</b>	<b>Section 6</b>			
<b>6.1</b>	<b>Depot</b>			
<b>6.1.1</b>	ROR required Monday for OP 2F Drg handed across at meeting	<b>LM/AS</b>	<b>10/09/07</b>	
<b>6.1.2</b>	Single pipe 800 mm diameter 1 line to be submitted to. SW Thursday.	<b>SDS</b>	<b>13/09/07</b>	
<b>7</b>	<b>System Wide</b>			
<b>7.1</b>	Drainage design is behind as information is still not available. This is still a critical issue. SDS to provide prioritised list of outstanding information to inform survey programme.	<b>SDS</b>	<b>A.S.A.P.</b>	
	<b>CRITICAL Programme Impacts</b>			
<b>8</b>	<b>MUDFA</b>			
<b>8.1</b>	As discussed under Item 1 –Forth Ports SDS want an instruction for redesign on plates 15 and 16	<b>tie</b>		
<b>9</b>	<b>VE</b>			
<b>9.1</b>	Jim McEwan is preparing a report for tie board	<b>tie</b>		

<b>10</b>	<b>Design Assurance</b>			
<b>10.1</b>	David Crawley will issue an informal design management manual to SDS. Process will be recorded on ROR forms.			
<b>11</b>	<b>Deliverables Tracker</b>			
<b>11.1</b>	Deliverables tracker is due on Monday	<b>SDS</b>	<b>10/09/07</b>	
<b>18</b>	<b>Due Dilligence</b>			
<b>18.1</b>	Ongoing at the same time as the design process			
<b>19</b>	<b>Utilities</b>			
<b>19.1</b>	BT aren't meeting dates SDS to record			
<b>19.2</b>	SDS will speak with MUDFA			
<b>19.3</b>	Scottish Water and Scottish Gas are causing probs which will cause SDS dates to move.			



**Tram Project – Minutes from Critical Issues Meeting**

**0900, Friday 21<sup>st</sup> September, 2007**

**MacAdam Room**

**Present:**

David Crawley	Matthew Crosse	Alan Dolan	Lindsay Murphy
Tony Glazebrook	Gavin Murray	Steven Bell	Andy Conway
Kirsty Wilson	Jim Cahill	Bruce Ennion	Jason Chandler
Steve Reynolds	Scott Ney	Alastair Richards	

**Apologies:**

Susan Clark	Barry Cross	Duncan Fraser
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		Who	When	Status
<b>1</b>	<b>Critical Issues</b>			
	<b>Picardy Place</b>			
1.1	An alternative option will have no impact unless it is chosen to be implemented.			
1.2	It was noted that DF has requested additional information for comparison purposes, which is not yet available.			
1.3	MUDFA (telecoms/gas/water/power) is due to commence in the area on the 12 <sup>th</sup> October.			
1.4	OLE building fixings is potentially impacted by a change in design as notices are due to be issued within the next few weeks.			
1.5	There is a potential programme impact, TSS to consider scenarios and how this will impact the programme.	<b>TSS</b>		
1.6	The issue of building fixing letters to properties in the area may need to be postponed until clarity on the proposal is attained.			
1.7	Board paper to be produced.	<b>DC</b>		
	<b>St Andrew's Square</b>			
1.8	Construction price sufficient design.			
	<b>Section 5a - SRU</b>			
1.9	Phasing – size of pitches.			
1.10	BC is leading with Trudi chasing SRU legal team for compensation information.	<b>BC</b>		
1.11	Main impact is as a result of construction works.			
	<b>Section 1a Bridges</b>			
1.12	Forth Ports have confirmed that they will provide additional costs for the footway.			

1.13	The survey is a long lead item.			
	<b>Depot</b>			
1.14	Earthworks design based on new layout to be provided by SDS to allow phase 2 works to continue.	SDS		
1.15	Single pipe has been agreed.			
	<b>Drainage Information</b>			
1.16	Action is being taken on some design which is deemed at risk.			
	<b>Lindsay Road</b>			
1.17	Wording on the change notice is being revised.	LM		
	<b>Run-Time Model</b>			
1.18	This is to move forward with assumptions.			
1.19	To take into account performance characteristics of the tram.			
1.20	Power simulation model.			
<b>2</b>	<b>Critical Programme Impacts</b>			
	<b>MUDFA</b>			
2.1	Sub-committee report.			
2.2	Deliverables 5, 11 and 1c to hit MUDFA in revision 5 programme.			
2.3	Section 2a was flagged up in regards to BT not meeting their timescales.			
2.4	IFCs are not being provided, SDS need to: <ul style="list-style-type: none"> <li>- micro-manage</li> <li>- provide a day to day account of activity</li> <li>- Identify how tie can assist</li> </ul>	SDS/tie		
2.5	Pre-SU's are not getting designed on time. <ul style="list-style-type: none"> <li>- A reporting issue was identified, which SB will resolve.</li> <li>- SDS will report activity at weekly meetings promptly and accurately</li> <li>- SDS noted that the responsibility was theirs to get this done.</li> <li>- An achievable programme of 21-28 days was agreed (tie have previously asked for a 2 week turnaround).</li> </ul>	SB/SDS		To report progress at CI Meeting 29/09/07
2.6	tie in parallel so this request has been included in Sub-Committee paper (Appendix 8) – SDS to consider.	SDS		
2.7	SB to action at Director level to get buy in from SU's.	SB		
2.8	SU's have responded to advise that they are attempting to provide additional resources to provide response. This is to be reported against at next CI Meeting.			29/09/07
2.9	It was asked if late responses are due to the technical complexity, in answer it was noted that the SU's are not resourced to accommodate the requests.			
2.10	It was noted that the design is there – they are only commenting on how it fits with others.			
	<b>Deliverables Progress</b>			
2.11	V17 programme has been benchmarked as the critical issues have been removed prior to this issue.			
2.12	V19 will give a target of 200 deliverables of which 174 are actual deliverables.			
2.13	8 will be removed as these are MUDFA deliverables, therefore there will be a total of 192/170 deliverables.			
2.14	There are 22 items at critical design locations.			
2.15	11 late items are in SDS control.			
2.16	The new tracker will be issued weekly on Friday.			
	<b>Due Diligence</b>			
2.17	Systems integration matrix.			
<b>3</b>	<b>AOB</b>			
3.1	No further items were raised for discussion.			
	<b>Date of Next Meeting:</b> Friday, 28 <sup>th</sup> September 2007			

Plans or Drawings provided at Meeting	
1	N/A
2	



**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 28<sup>th</sup> September 2007**

**MacAdam Room**

**Present:**

David Crawley	Lindsay Murphy	Kate Shudall	Alan Bowen
Steven Bell	Jason Chandler	Jim Cahill	Duncan Fraser
Gavin Murray	Steve Reynolds	Claire Norman	
Kirsty Wilson	Alan Dolan	Alastair Richards	
Gabrielle Bedwell	Scott Ney	Tom Hickman	

Apologies  
 Matthew Crosse                      Susan Clark

		Who	When	Status
<b>1</b>	<b>Critical Design Locations</b>			
<b>1.1</b>	<b>Forth Ports Section 1a</b>			
<b>1.1.1</b>	<b>Lindsay Road</b>			
	SN noted that the designer is 75% confident that the design can work following the ADM milling issue. Remaining 25% is regarding detail and the issue of approval. SDS have received a change to allow them to recommence design development	<b>SN</b>	<b>5/10/07</b>	<b>Ongoing</b>
	Geoff Gilbert must be made aware of the development.	<b>LM/DC</b>	<b>01/10/07</b>	
	It was noted that this remains a critical issue and interface should continue with Forth Ports. Update from SDS in 2 weeks.	<b>SDS</b>	<b>12/10/07</b>	
<b>1.1.2</b>	<b>Ocean Terminal</b>			
	Awaiting detail.			
<b>1.1.3</b>	<b>Section 1 Bridges</b>			
	Awaiting detail.			
<b>1.2</b>	<b>Section 1b</b>			
<b>1.2.1</b>	<b>Leith Walk Footway Reinstatement Specifications</b>			
	Assessment needs to be undertaken by CEC to assess what is required and what sections need to be reinstated or replaced. Clarification from CEC is required on their specific intent for this section. CEC to advise of SDS input required to make assessment Footway works will be undertaken as part of the public realm and will be covered by the funds allocated for	<b>CEC</b> <b>CEC</b>		



	these by CEC and managed by David Pollock (SDG). It was noted that any additional works is a potential risk to programme. It was noted that meetings have taken place between CEC, SDS and the public realm team without tie. All future issues in regards to Public Realm should be copied to Kirsty Wilson (tie contact).	CEC		Ongoing  Ongoing
<b>1.3</b>	<b>Section 1c</b>			
<b>1.3.1</b>	<b>Picardy Place</b>			
	Design is progressing on the SDS design proposal in order to give CEC a 'like-for-like' comparison between the two options. SDS will give an update of when the package can be delivered on Tuesday 2 <sup>nd</sup> October. CEC must prepare resources to receive and compare the two designs. The differing options should not affect the OLE as the alignment is fixed through the area; therefore the building fixings notices can be issued as scheduled. GM asked CEC to clarify their position in regards to which body will be the header on building fixing notices.	SDS	02/10/07	
		CEC/TSS		
<b>1.3.1.4</b>		SDS		
		CEC	A.S.A.P	
<b>1.3.2</b>	<b>St Andrew Square</b>			
	Not discussed			
<b>1.4</b>	<b>Casino</b>			
	A drawing reflecting the new scope is required to complete the Agreement. SDS and tie are to review the existing drawing and see if it suitable, and if not, what is required. It was noted that the Agreement is otherwise complete.	SDS/tie	3/10/07	
<b>1.4</b>	<b>Section 5a</b>			
<b>1.4.1</b>	<b>SRU</b>			
	CEC has discussed with SRU and plans are now agreed Tram to form a compound and move all the pitches north. The flood scheme is to come at a later date (approx. 2010). Meeting to be held between tie (Barry Cross) and SRU to finalise this will allow SDS to commence prior approval public consultation. Tie to inform SDS of meeting date to allow preparation for launch KS noted this is affecting the prior approvals schedule.	LM	03/10/07	Ongoing
<b>1.5</b>	<b>Section 6</b>			
<b>1.5.1</b>	<b>Depot</b>			
	Major review commences next week on the pipe positioning at the depot.			Ongoing
<b>1.6</b>	<b>System Wide</b>			
<b>1.6.1</b>	<b>Drainage</b>			
	Drainage seems to be affecting Line 2 more than Line 1. Sewer survey work is being undertaken by section, tackling the easier sections first to avoid programme conflict. Work is ongoing to support the difficult sections to allow a complete survey of each section to complete prior to the former sections. It was noted that SDS are now working at risk on the assumptions of survey details that have not yet been verified. As details arise, some road and drainage packages may need to be reissued. It was noted that there are no sections with complete information. However there are a couple that are 90%			

	complete. It was noted that the risk within the city is not great as the area of hard surfacing to be drained will not significantly change. Out by the depot and onwards is a higher risk.			
<b>2</b>	<b>Critical Programme Impacts</b>			
<b>2.1</b>	<b>MUDFA</b>			
	<p>SDS noted that the MUDFA programme is being held up by 4 distinct issues: SGN commercial issues, BT's late (and moving outwards) C4 programme for the provision of information, sewer survey information and telecoms (virgin media) in regards to lack of kerb details.</p> <p>SB to meet with SGN on Monday, follow up on Friday: commercial issues should be resolved.</p> <p>- It was agreed that for SDS to design at risk was a suitable way of progressing this.</p> <p>SDS is to consider a specific resource to manage the interface with BT Open Reach. SDS asked if anyone knew of a suitably influential resource</p> <p>Issue in regards to sewer access – SW have requested the possibility of a man-hole within the 4m space on the trackbed with agreement for access rights. This is currently not a feasible option and SDS prefer the side-entry option. High level interface may be necessary.</p> <p>Access needs to be revised to address communication delay between SDS and MUDFA.</p> <p>SR noted that in the tie/SDS/CEC contract, the responsibility is on the SUC's to provide detailed information to SDS in advance of design.</p> <p>DC requested a list of issues deemed to be critical in this area for the next meeting; this should be generated from the prior Wednesday meeting.</p>	<p><b>SB</b></p> <p><b>SDS</b></p> <p><b>SDS</b></p>	<p><b>01/10/07</b></p> <p><b>02/10/07</b></p>	
<b>2.2</b>	<b>TBC</b>			
	Not Discussed			
<b>2.3</b>	<b>TBC</b>			
	Not Discussed			
<b>2.4</b>	<b>TBC</b>			
	<p>It was noted that there are 2 trackers in circulation: the deliverables and the prior approvals tracker. JC is producing a map to illustrate how the deliverables tracker ties into the prior approvals. This will be shared with DC and TH on Monday.</p> <p>It was noted that the prior approvals submissions have changed from a sloped line (which reflected CEC's resources), to a near vertical line as a result of the 4 month hiatus. This will be discussed further following issue of the SDS report on Monday.</p> <p>The v19 programme will be reissued with the additional details that have been requested including the schedule of named deliverables to be included in each prior approvals.</p> <p>It was noted that in any case where a third party is responsible for the delay it is more useful to name the interface owner within the project rather than the third party.</p> <p>SDS/tie will confirm the organisation chart and roles and responsibilities within SDS including</p>			

	subcontractors.			
<b>2.5</b>	<b>TBC</b>			
	Not Discussed			
<b>3</b>	<b>Technical Approvals process and Programme</b>			
<b>3.1</b>	As Above			
<b>3.2</b>	<b>AOB</b>			
<b>3.3</b>	Not Discussed			
	<b>Date of Next Meeting: Friday, 5<sup>th</sup> October 2007</b>			

	<b>Plans or Drawings provided at Meeting</b>	
<b>1</b>	N/A	
<b>2</b>		



**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 5<sup>th</sup> October 2007**

**MacAdam Room**

**Present:**

David Crawley	Duncan Fraser	Gavin Clement - SDS
Steven Bell	Ian Spence	Scott Ney - SDS
Lindsay Murphy	Alastair Richards	Alan Dolan - SDS
Gabrielle Bedwell	Claire Norman	Bruce Ennion - SDS

Apologies			
Matthew Crosse	Kirsty Wilson	Tom Hickman	Jim Cahill
Andy Steel			

		Who	When	Status
<b>1</b>	<b>Critical Design Locations</b>			
<b>1.1</b>	<b>Forth Ports Section 1a</b> IS put forward the proposal of significant cycle parking areas next to the trams to enable enhanced integration. This will be an integration issue once it has gone through planning, then SDS will take action.			
<b>1.1.1</b>	<b>Lindsay Road</b> SDS received notice 2 days ago. Meeting is set for Monday with Forth Ports. SDS are proceeding with 1 <sup>st</sup> assignment.			
<b>1.1.2</b>	<b>Ocean Terminal</b> SDS intimated that the Change estimate had been passed to tie tie to issue change order.	LM		
<b>1.1.3</b>	<b>Section 1 Bridges</b> Change request submitted to tie. tie to issue change notice to SDS	LM		
<b>1.1.4</b>	<b>Casino Square</b> Change request has been submitted to tie. LM to talk with BC today and then issue change notice. SB to progress with as-built drawings.	LM/SB		
<b>1.2</b>	<b>Section 1b</b>			
<b>1.2.1</b>	<b>Leith Walk Footway Reinstatement Specifications</b> CEC looking for area and cost to move forwards. CEC need to instruct Infracore before financial close so need to know what the costs will be. LM to oversee	LM/DF/AD		

	smooth running of communications between CEC and SDS. AD to get back to DF on allowance for losses to existing materials.			
<b>1.3</b>				
<b>1.3.1</b>	<b>Picardy Place</b> CEC expecting design today from TSS. CEC will now have two 'like-for-like' options to compare. Decision involves timely processes. LM to instruct SDS on new scheme to follow in parallel.	<b>LM</b>		
<b>1.3.2</b>	<b>St Andrew Square</b> Timescale for delivery depends on the traffic diversion. The information is out, the initial programme review has taken place with MUDFA and programme staff and traffic management people. The problems with the programme have been identified, and solutions are being devised. MUDFA may be starting at St Andrews Square with a 7-8 week delay, unless solutions are devised.			
<b>1.4</b>	<b>Section 5a</b>			
<b>1.4.1</b>	<b>SRU</b> CEC nothing to report. LM to get update from BC on progress of achieving a signature to progress with consultation.	<b>LM</b>		
<b>1.5</b>	<b>Section 6</b>			
<b>1.5.1</b>	<b>Depot</b> SB and AD have identified two areas to try to bring forward. AD to look into survey information that fits into this. Still within critical path.	<b>AD</b>		
<b>1.6</b>	<b>System Wide</b>			
<b>1.6.1</b>	<b>Drainage</b> AD issued programme highlighting areas still required.			
<b>1.7</b>	<b>Section 3b Caroline Park OLE Poles</b> If there is no other option tie will enter negotiations with 3 <sup>rd</sup> parties	<b>TC</b>		
<b>2</b>	<b>Critical Programme Impacts</b>			
<b>2.1</b>	<b>MUDFA</b> AD issued IFC drawing production schedule to meeting attendees. SDS have been asked to issue IFCs on the basis of Conditional approval from SUs before all notes are incorporated onto the final drawings.  SDS requested that this be request conveyed by formal instruction as they consider there to be the opportunity for information to be missed and safety to be compromised. SB IFC to be issued this afternoon for first package. Second package is on time for issue on the 15 <sup>th</sup> . Issues to be sorted out with Scottish Water. SB has discussions with SG next Thursday to resolve issues. SB noted that on original programme, next Friday had a peak of 4 sections to be delivered for approval. Items will need to be prioritised to ensure efficient delivery. AD should have received BT estimates for C4 this	<b>SB</b> <b>SDS</b> <b>SB</b> <b>SDS</b>		<b>Note</b>

	<p>week. Those 2 packages will slip because of this. Ad's team is currently chasing this up. 2a Section 7 gaps to be issued today. Scottish Power agreement hasn't been signed, it is being finalised. SB is to see Telewest next week to iron aid with any confusion inhibiting progress.</p>	<p><b>SDS</b></p> <p><b>SB</b></p>		
<b>2.2</b>	<b>TBC</b>			
	Not Discussed			
<b>2.3</b>	<b>TBC</b>			
	Not Discussed			
<b>2.4</b>	<b>Deliverables Tracker</b>			
	Tracker is issued on Monday mornings. SR needs to provide latest deliverables chart to insert into DPD report. Gradient should be following last periods forecast. SR may prefer to wait until Monday's issue of latest chart.	<b>SR</b>		
<b>2.5</b>	<b>Due Diligence Process</b>			
	<p>AD sent letter. Would feel comfortable with confirmation of discussions at weekly meetings. SDS has only received 2 questionnaires from Infracore. AD fears there is no evidence of due diligence process. AD queried if there was a way that anyone can find out if people are using the system. DC to find out then raise the issue with GG</p> <p>LM to show relevant people where to look for drawings on extranet next week. Alan Bowen and Andy Conway from CEC will require to be shown.</p>	<p><b>DC</b></p> <p><b>LM</b></p>		
<b>3</b>	<b>Technical Approvals process and Programme</b>			
<b>3.1</b>	<p>Prior approvals tracker: slope of blue line becoming more vertical over time. It is not a credible situation created by delay to design and an immovable end date.</p> <p>DC looking for suggestions to critical problem. CEC have resourcing problem, need to get CEC started on what they can now, instead of an influx of work all at the one time.</p> <p>SDS to offer some suggestions on how to help the situation. One suggestion being that structures are brought forward. SDS to confer with CEC and have proposals prepared by next critical issues meeting. GB to set up meeting for Wed to discuss.</p>	<p><b>AD</b></p> <p><b>GB</b></p>		
<b>4</b>	<b>AOB</b>			
	<ul style="list-style-type: none"> <li>- CN to bring numbers from deliverables trackers to critical issues meetings.</li> <li>- SB to work with all to improve technical query turnaround. SB to include AD in dialogue with BM</li> <li>- Sewer design and issues (potential critical issue). Need to work with Scottish Power to push forward. SB not seen any progress. AD to ensure course of action is followed through.</li> <li>- Position to be agreed on cycling issues from tie.</li> <li>- Agreement required from tie on the back of taxi stance meeting.</li> <li>- The specification for roads hasn't been seen by CEC, council recommends going for secondary performance specification.</li> <li>- Shandwick place: SKR has requested confirmation</li> </ul>	<p><b>CN</b></p> <p><b>AD</b></p> <p><b>KR/AS</b></p> <p><b>KR/AS</b></p>		

	of process which led to assumption that Shandwick place would be closed to general traffic - Picardy Place: further micro modelling to follow. - Area wide modelling is there enough money in Buisness case?			
<b>Date of Next Meeting:</b> Friday, 5 <sup>th</sup> October 2007				

Plans or Drawings provided at Meeting	
1	MUDFA IFC Drawing production Schedule
2	Manhole Information Tracker
3	Programme
4	SDS Design Flow to Achieve IFC Approval



**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 12<sup>th</sup> October 2007**

**MacAdam Room**

**Present:**

David Crawley	Andy Conway	Alan Dolan - SDS
Lindsay Murphy	Steven Reynolds	Scott Ney - SDS
Gabrielle Bedwell	Clare Norman	Bruce Ennion - SDS
Andy Steel		Jason Chandler - SDS
		Kate Shudall - SDS

Apologies		
Matthew Crosse	Kirsty Wilson	Steven Bell

1	Critical Design Locations	Who	When	Status
<b>1.1</b>	<b>Forth Ports Section 1a</b>			
<b>1.1.1</b>	Lindsay Road			
	Reconnecting Lindsay Road after ADM milling caused it to be a problem. The main issue being what is the final design going to look like? BC will be meeting to negotiate with Forth Ports on the 22 <sup>nd</sup> Oct. There needs to be an agreement on heads of terms in order to proceed. It has been agreed to move forward with the designs split into sections to allow the deliverables to flow without being held up by sub-sections.	<b>BC</b>		
<b>1.1.2</b>	Ocean Terminal			
<b>1.1.3</b>	Section 1 Bridges			
	Same category as above. Widening one bridge. Meeting this week to decide how to proceed. SDS to instruct Halcrow to proceed with water bourne surveys.	<b>SDS</b>		
<b>1.1.4</b>	Casino Square			
	tie needs a drawing to support the agreement with Casino Square. SDS to do more design before producing drawing. GM to instruct what drawing needs to contain.	<b>GM</b>		
<b>1.2</b>	<b>Section 1b</b>			
<b>1.2.1</b>	Leith walk Footway Reinstatement Specifications +			



	Constitution Street The issue here is that the road vehicles will block the tram or the pavement. On Leith Walk the issue is about how much needs to be done, on Constitution Street the issue is about increasing the load bearing capacity of the footway. SDS is to define specification for footway on Constitution Street as intimated in presentation to bidders  Leith Walk is dependent on the scope and CEC funding.	SDS		
<b>1.3</b>	<b>Section 1c</b>			
<b>1.3.1</b>	Picardy Place As stated in the email presented by DC, CEC support the T-Junction option. The issue here being the impact this has on the programme and to costs. This option will also affect two prior approvals. TSS to provide copy of what has been done to SDS in CAD format today (12/10/07). This needs to be seen before SDS can provide a time estimate for the work to be done. SDS to have decided a date to commit to by next critical issues meeting. Before finally committing to this option we need a statement of impact from SDS.	TSS/SDS		
<b>1.3.2</b>	St Andrew Square Issue here is the finishes need to be formally accepted by Streetscape. Capital Streets doesn't have sufficient funds to do the design so SDS to redesign. CEC to confirm that streetscape have accepted the design. tie have one week to confirm the design is efficient and there are sufficient funds to carry out designs. MUDFA team are pricing up works now.	CEC/SDS/tie		
<b>1.4</b>	<b>Section 5a</b>			
<b>1.4.1</b>	SRU Nothing has been signed yet but we are very close.. If SRU know and agree with going for prior approval then SDS are able to progress. KS recommended splitting Wanderer's accommodation works Prior Approval out for delivery at a later date to enable the main track alignment to move forward. KS, LM and BC to meet and discuss.	KS/BC		
<b>1.5</b>	<b>Section 6</b>			
<b>1.5.1</b>	Depot MUDFA to provide AD with survey information. SDS need this information before they can progress.			
<b>1.6</b>	<b>System Wide</b>			
<b>1.6.1</b>	Drainage SDS have not received revised drainage programme from MUDFA. Drainage is progressing but will do a back-fit check when they receive revised drawings. All sections cannot be 100% confirmed until they receive survey information.			
<b>2</b>	<b>Critical Programme Impacts</b>			
	RoR process for informal consultation needs to be clarified. GM and KS to discuss.	GM/KS		
	Roseburn Terrace Bridge – Assistance is required from tie so SDS can finish design. Historic Scotland now won't confirm that SDS have fulfilled	SDS/AC		

	requirements. This could potentially cause large delays. tie to intervene and forward letter from SDS to Historic Scotland. SDS to show letter to CEC, AC to arrange meeting with CEC structures.			
<b>2.1</b>	<b>MUDFA</b>			
	AD distributed MUDFA IFC schedule to those present at meeting. There is an issue with the process with regard to turnaround times. AD and SB to discuss.	<b>AD/SB</b>		
<b>2.2</b>	<b>Not Discussed</b>			
<b>2.3</b>	<b>Not Discussed</b>			
<b>2.4</b>	<b>Deliverables Tracker</b>			
	-Traffic modelling to be brought back into critical issues. - Critical path issues: Structures and tramstops adjacent to structures that are delayed.			
<b>2.5</b>	<b>Not Discussed.</b>			
<b>3</b>	<b>Technical Approvals Process and Programme</b>			
	Need to tighten up document control. SDS to catch up with back log of drawings. JC to produce description of clear process of document dispersal addressing technical approval, prior approval and informal consultation. Process to be reviewed next Friday. JC to arrange training on collaborate site for next Wednesday. tie/CEC to provide names of those who need training.	<b>SDS</b>  <b>JC</b>		
<b>4</b>	<b>AOB</b>			
	EMC JC to meet with CK to finalise what work is required to close out Forth Ports, BAA and Network Rail. SDS need info from BAA regarding their kit (as they wont allow a survey).	<b>JC/CK</b>		
	Traffic Modelling MC requested presentation on traffic modelling and run time modelling. JC to arrange a time with MC.	<b>JC/MC</b>		
	Change Notices Need to be mindful of updating change requests and estimates to ensure changes are up to date and match estimates.			
	Roseburn Corridor DC raised concerns the ICP may identify with regard to mitigation of risk in the Roseburn Corridor. SDS need to provide formal statement on how to deal with these risks.	<b>SDS</b>		
	SDS Design Process Issue raised: if IDC confirms that integration has occurred, what is the process that makes the integration happen?	<b>SDS</b>		
	<b>Date of Next Meeting: Friday, 19<sup>th</sup> October 2007</b>			

<b>Plans or Drawings provided at Meeting</b>	
<b>1</b>	MUDFA IFC Drawing Production Schedule
<b>2</b>	
<b>3</b>	
<b>4</b>	



**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 19<sup>th</sup> October 2007**

**MacAdam Room**

**Present:**

David Crawley	DC	Andy Conway	AC	Alan Dolan - SDS	AD
Lindsay Murphy	LM	Alastair Richards	AR	Scott Ney - SDS	SN
Gabrielle Bedwell	GB	Graeme Barclay	GBA	Bruce Ennion - SDS	BE
Steven Bell	SB	Susan Clark	SC	Kate Shudall - SDS	KS
Matthew Crosse	MC	Keith Rimmer	KR	Jim Cahill	JC
Ian Spence	IS	Duncan Fraser	DF		

Apologies			
Kirsty Wilson	KW	Gavin Murray	GM

1	Critical Design Locations	Who	When	Status
1.1	<b>Forth Ports Section 1a</b>			
	No issues here assuming outcomes of last weeks meeting hold. Head of terms are effectively agreed. LM to check with Barry Cross.	LM		
1.2	<b>Section 1b</b>			
1.2.1	<b>Leith Walk footway reinstatement spec.</b>			
	SN to go through drawings with AC. KR asked where CEC are on funding issue with streetscape works. AC stated that the money has been identified but just needs to be confirmed.	SN/AC		
1.3	<b>Section 1c</b>			
1.3.1	<b>Picardy Place</b>			
	<ul style="list-style-type: none"> <li>- BT is critical, the proposed position will pose problems with the design. This will have a huge impact on the programme. SDS are scheduled to finish design at end of October, currently they are 1 week away from completion.</li> <li>- DC suggested a packaged statement on impacts.</li> <li>- DF will make a decision on basis of design. AD and DF to discuss further.</li> <li>- SB highlighted that cable diversions will be a challenge.</li> <li>- AC suggested sticking with current alignment as a solution.</li> <li>- AD to brief DF prior to meeting on Monday morning.</li> </ul>	AD/DF		

	<ul style="list-style-type: none"> <li>- LM to provide GBA with drawing.</li> <li>- SC to instruct Tom Hickman to see how an increase in the programme in this area affects the entire programme.</li> <li>- AR stated for the record that TEL fundamentally opposes T-junction option.</li> <li>- LM to organise meeting for Wednesday.</li> </ul>	<p style="text-align: center;"><b>SC/TH</b></p> <p style="text-align: center;"><b>LM</b></p>		
<b>1.3.2</b>	<p><b>St Andrew Square</b></p> <p>KR stated he had still not seen the draft order for St. Andrew Square. Now in statutory consultation period for the order. Need order asap in order to prepare report.</p>	<p style="text-align: center;"><b>SDS</b></p>		
<b>1.4</b>	<b>Section 2</b>			
<b>1.4.1</b>	No issues.			
<b>1.5</b>	<b>Section 5a</b>			
<b>1.5.1</b>	<p><b>SRU</b></p> <p>Going for the two stage process; move pitches then flood scheme follows. Craig Wallace says wasting an opportunity to do it all in one. DF has copied BC in on all correspondence. Meeting to be held next week</p>	<p style="text-align: center;"><b>LM/BC</b></p>		
<b>1.5.2</b>	<p><b>Balgreen</b></p> <p>No issues.</p>			
<b>1.6</b>	<b>Section 6</b>			
<b>1.6.1</b>	<p><b>Depot</b></p> <p>GBA to provide topographical point of where they plan to start and finish. SDS will then be able to provide the fall. AD will be able to provide a date today of how quickly they can get the design done. AD stressed that allowance needs to be made for future development.</p>	<p style="text-align: center;"><b>GBA/AD</b></p>		
<b>1.7</b>	<b>Section 7</b>			
<b>1.7.1</b>	Change order has now gone. Next Friday we will have an estimate.			
<b>1.8</b>	<b>System Wide</b>			
<b>1.8.1</b>	<p><b>Drainage</b></p> <p>AMIS still a risk.</p>			
<b>1.8.2</b>	<p><b>Utilities</b></p> <p>Following submission of plate 44, SGN will not provide any further approvals due to commercial situation between SGN and tie. This may affect submissions for 9/11.</p>			
<b>1.9</b>	<b>Other Design Issues</b>			
	<p>1. Network Rail have asked for CAT3 checks on some structures when previously it was agreed to do only a CAT2 check. Murrayfield stadium retaining wall is one of the structures and there may be another 3 to come. TG has been informed and RL is following up.</p>	<p style="text-align: center;"><b>TG/RL</b></p>		
	<p>2. Regarding the contaminated landfill site at Gogar - a report and a letter have been sent to tie. LM/KS is setting up a meeting for next week.</p>	<p style="text-align: center;"><b>LM/KS</b></p>		
<b>2</b>	<b>Critical Programme Impacts</b>			
<b>2.1</b>	<b>MUDFA</b>			
	<ul style="list-style-type: none"> <li>- AD Distributed Schedules.</li> <li>- GBA agreed to use the SDS process noting that more effort had to be expended on reducing the final 3 week process element.</li> </ul>			

	<p>- DF queried as to how this process would affect traffic management, GBA stated it would allow greater visibility and more time.</p> <p>-On section 7a, GBA will pass on a RATS proposal to AD early next week, AD can return it by the requested date of 29/10.</p> <p>-DF stressed that there is a difference between doing a link and a major junction. Need to look at the traffic management, the more planning that is done, the easier a difficult job will be.</p>	GBA/AD		
<b>2.2</b>	<b>VE</b>			
	<p>- Meeting was held yesterday with Jim McEwan. From that came the action to engage with preferred bidder as soon as there is one.</p> <p>- 30% of the Infracore bidder's costs are still provisional. MC asked if there was anything SDS could do to decrease this 30% and/or get to a fixed price.</p> <p>- Bidders costs are very different to SDS's, need to engage in discussions with bidders to find out why. GG to give AD numbers to do comparison prior to the meeting with bidders.</p>	GG		
<b>2.3</b>	<b>Not Discussed</b>			
<b>2.4</b>	<b>Deliverables Tracker</b>			
	JC will issue tracker by Monday lunchtime.	JC		
<b>2.5</b>	<b>Not Discussed.</b>			
<b>3</b>	<b>AOB</b>			
	<b>Risk Analysis and Control of Capex.</b>			
	<p>Technical approvals show that only section 1b will be available prior to financial close. This leaves us exposed. DF is worried about changes which will escalate into claims from Infracore for areas not approved prior to financial close.</p> <p>SC suggested investigating into a fast track technical approval process.</p> <p>There will be a meeting to discuss.</p>			
	<b>Betterment</b>			
	<p>Paper has gone through board. MC suggests to issue a raft of change requests. As soon as the board signs off then we can move forward. Need to identify the areas and get the change requests to the board asap. Need an unambiguous way of measuring this. AC and KR to work on this change request.</p>	AC/KR		
	<b>Date of Next Meeting:</b> Friday, 26 <sup>th</sup> October 2007			

<b>Plans or Drawings provided at Meeting</b>	
<b>1</b>	MUDFA IFC Drawing Production Schedule
<b>2</b>	Depot Plans
<b>3</b>	
<b>4</b>	



**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 26<sup>th</sup> October 2007**

**MacAdam Room**

**Present:**

David Crawley	DC	Alan Bowen	AB	Alan Dolan - SDS	AD
Lindsay Murphy	LM	Graeme Barclay	GBA	Scott Ney - SDS	SN
Gabrielle Bedwell	GB	Susan Clark	SC	Jason Chandler	JC
Steven Bell	SB	Damian Sharp	DS	Clare Norman	CN
Gavin Murray	GM				

Apologies

Kirsty Wilson      KW

1	Actions arising from last weeks minutes	Who	When	Status
<b>1.1</b>	<b>Forth Ports Section 1a</b>			
	Still confident with position. Not yet closed out.			
<b>1.2</b>	<b>Section 1b</b>			
<b>1.2.1</b>	<b>Leith Walk footway reinstatement spec.</b>			
	Done			
<b>1.3</b>	<b>Section 1c</b>			
<b>1.3.1</b>	<b>Picardy Place</b>			
	- DF still of the mind that T-Junction option should go ahead. SDS issued instruction to cease work on Capex. Tram project board decision to be made next Wednesday. - Andrew Holmes and Neil Renilson are meeting next week to ensure the path is smooth before going to tram board. Utilities team progressing as per existing design until issued with a change	<b>DS</b>	<b>A.S.A.P.</b>	<b>Note</b>
<b>1.3.2</b>	<b>St Andrew Square</b>			
	Done			<b>Done</b>
<b>1.4</b>	<b>Section 2</b>			
<b>1.4.1</b>	No issues.			<b>No issues</b>
<b>1.5</b>	<b>Section 5a</b>			
<b>1.5.1</b>	<b>SRU</b>			
	Meeting on Wednesday to agree specifications for 6 pitch move. SRU don't think there is an issue with Wanderers. Clarifications will be made on Wed.	<b>LM</b>		<b>Ongoing</b>
<b>1.5.2</b>	<b>Balgreen</b>			

	No issues.			
<b>1.6</b>	<b>Section 6</b>			
<b>1.6.1</b>	<b>Depot</b>			
	Design of the depot allows space for a second lane of dual carriageway to be built in the future. BAA may need to divert the water main to do this. GBA checking that this assumption is correct as it is not tie's responsibility to carry out any works for BAA SDS designing on this basis.	<b>GBA</b>		<b>note</b>
<b>1.7</b>	<b>Section 7</b>			
<b>1.7.1</b>	No issues.			
<b>1.8</b>	<b>System Wide</b>			
<b>1.8.1</b>	<b>Drainage</b>			
	AMIS still a risk. Surveys ongoing			<b>ongoing</b>
<b>1.8.2</b>	<b>Utilities</b>			
	See 3.1			
<b>1.9</b>	<b>Other Design Issues</b>			
	Contaminated Landfill site at Gogar- SDS have outlined issues and proposed solutions; either dig out the contaminant (costly), place a raft with pile foundations on the top or surcharge the ground. SDS to provide info supplementary asap. GG to be informed to allow discussions with BBS to open.	<b>AD LM</b>		
<b>2</b>	<b>Critical Design Locations</b>			
	<b>No others</b>			
<b>3.0</b>	<b>Critical Programme Impacts</b>			
<b>3.1</b>	<b>MUDFA</b>			
	SDS and GBA to sign off and agree on final process to be adopted. AD to prepare document by 2/11.	<b>AD</b>	<b>2/11/07</b>	
<b>3.2</b>	<b>VE</b>			
	LM to provide SDS with hardcopy of schedule, structure by structure. Meeting on Tuesday.	<b>LM</b>		
<b>3.3</b>	To be removed			
<b>3.4</b>	<b>Deliverables Tracker</b>			
	Confusion was identified surrounding tracker. Tracker is updated with programme every 4 weeks. Hence there are no deliverables 'due within one month' shown for the 3 weeks in between. JC and DS to discuss tracker in more detail to help understanding. DC highlighted drift of delayed deliverables. Queries rose as to whether delays are a long term problem or if they have a quick fix solution. JC and DS to discuss delay issues in depth weekly.	<b>DS/JC</b>		
<b>3.5</b>	Not discussed.			
<b>4.0</b>	<b>AOB</b>			
	<b>Risk Analysis and Control of Capex.</b>			
	Fast tracking of approvals has not been discussed. CEC looking to reduce approval period from 8 weeks. BBS need to have confidence in SDS designs. SDS to make presentation. DS to broker meeting between SDS and CEC.	<b>DS/SDS/CEC</b>		
	<b>Betterment</b>			
	Ongoing.			

	<b>Date of Next Meeting:</b> Friday, 2 <sup>nd</sup> November 2007			

<b>Plans or Drawings provided at Meeting</b>	
<b>1</b>	MUDFA IFC Drawing Production Schedule
<b>2</b>	
<b>3</b>	
<b>4</b>	





**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 2<sup>nd</sup> November 2007**

**MacAdam Room**

**Present:**

David Crawley	DC	Jason Chandler	JC
Lindsay Murphy	LM	Alan Dolan - SDS	AD
Gabrielle Bedwell	GB	Scott Ney - SDS	SN
Gavin Murray	GM	Damian Sharp	DS

**Apologies**

Kirsty Wilson	KW	Steven Bell	SB
Graeme Barclay	GBA		

<b>1</b>	<b>Actions arising from last weeks minutes</b>	<b>Who</b>	<b>When</b>	<b>Status</b>
<b>1.1</b>	<b>Forth Ports Section 1a</b>			
	Barry Cross is still in Heads of Terms negotiations.			
<b>1.3</b>	<b>Section 1c</b>			
<b>1.3.1</b>	<b>Picardy Place</b>			
	Meeting with Andrew Holmes this morning resulted in going with T-junction with option 1 utilities. So no change to utilities or track alignment if it can be avoided. DS will send through change notice today to SDS.	<b>DS</b>	<b>2/11/07</b>	
<b>1.4</b>	<b>Section 2</b>			
<b>1.4.1</b>	No issues.			
<b>1.5</b>	<b>Section 5a</b>			
<b>1.5.1</b>	<b>SRU</b>			
	At last weeks meeting, Craig Wallace was taken through the clubhouse plans and his comments that he had made on prior approvals. Still no signed Heads of Terms. The spec is agreed and now being priced.			
<b>1.5.2</b>	<b>Balgreen</b>			
	Not discussed			
<b>1.6</b>	<b>Section 6</b>			
<b>1.6.1</b>	<b>Depot</b>			
	Design of the depot allows space for a second lane of dual carriageway to be built in the future. BAA may need to divert the water main to do this. GBA checking that this assumption is correct as it is not tie's responsibility to carry out any works for BAA. SDS	<b>GBA</b>		<b>note</b>

	designing on this basis.			
<b>1.8</b>	<b>System Wide</b>			
<b>1.8.1</b>	<b>Drainage</b>			
	Not discussed.			
<b>1.8.2</b>	<b>Utilities</b>			
	Not discussed.			
<b>1.9</b>	<b>Other Design Issues</b>			
	Possible Contaminated Landfill site at Gogar. Discussions are now open. SDS to carry out actions from meeting last week. Tie to provide instruction.	<b>SDS/tie</b>		
<b>2</b>	<b>Critical Design Locations</b>			
	<b>No others</b>			
<b>3</b>	<b>Critical Programme Impacts</b>			
<b>3.1</b>	<b>MUDFA</b>			
	Process ongoing. GBA raised (by email) design for utilities section 1a; plates 16-21 were sent by SDS on Mon 29/11. Instruction for redesign is in pipeline, DS to do today.	<b>DS</b>		
<b>3.2</b>	<b>VE</b>			
	BBS will not engage in talks on costs but will on scope reduction. Process ongoing. Proceeding on a basis of scope reductions.			
<b>3.4</b>	<b>Deliverables Tracker</b>			
	JC to add column to SDS deliverables tracker showing percentage of completion for each deliverable.	<b>JC</b>		
<b>3.5</b>	Not discussed.			
<b>4</b>	<b>AOB</b>			
<b>4.1.1</b>	<b>"Agreed V21 Programme"</b>			
	AC produced V21 programme and raised concerns as to the lack of deliverables produced from SDS. JC and AC to go through approvals and consents tracker before next meeting.	<b>JC/AC</b>		
<b>4.1.2</b>	<b>Collaboration Site</b>			
	SDS is now to put documents directly onto tie's collaboration site. GB to discuss with Linda Melville and JC to ensure agreement on arrangement in coming week.	<b>GB</b>		
<b>4.1.3</b>	<b>Recreate Session</b>			
	GB to arrange that JC show CEC and tie the line up between approvals tracker and where in whose system the documents for approvals can be found.	<b>GB</b>		
<b>4.1.4</b>	<b>Tram Lengths Impact Report</b>			
	DS to chase up. LM and DS to discuss.	<b>LM/DS</b>		
<b>4.1.5</b>	<b>MUDFA</b>			
	Protocol to working weekends and nights. Better planning required. To be discussed further at next meeting.			
	<b>Date of Next Meeting:</b> Friday, 9 <sup>th</sup> November 2007			

<b>Plans or Drawings provided at Meeting</b>	
<b>1</b>	MUDFA IFC Drawing Production Schedule
<b>2</b>	Spreadsheet to show comparison of previous weeks deliverables trackers
<b>3</b>	
<b>4</b>	



**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 9<sup>th</sup> November 2007**

**MacAdam Room**

**Present:**

David Crawley	DC	Jason Chandler	JC
Gabrielle Bedwell	GB	Alan Dolan - SDS	AD
Kirsty Wilson	KW	Clare Norman	CN
Damian Sharp	DS	Ian Spence	IS
Mark Hamill	MH	Andy Conway	AC

**Apologies**

Graeme Barclay	GBA	Steven Bell	SB
Gavin Murray	GM		

<b>1</b>	<b>Actions arising from last weeks minutes</b>	<b>Who</b>	<b>When</b>	<b>Status</b>
<b>1.1</b>	<b>Forth Ports Section 1a</b>			
	We believe signing of the Heads of Terms is imminent. GBA has asked about utilities from Ocean Drive to Newhaven. JC to check alignment is the same and inform GBA.	JC		
<b>1.2</b>	<b>Section 1c</b>			
<b>1.2.1</b>	<b>Picardy Place</b>			
	-Traffic modelling has demonstrated significant increase in queue lengths associated with hybrid version of T-Junctions. GBA to confirm when MUDFA works at Picardy Place are planned. - Principal constraint is considered to be BT with whom we do not have an agreement. - SDS to fit in design. - SDS, CEC, GBA and SB to meet to discuss. - Presentation of traffic modelling to Willie Gallagher and Andrew Holmes to occur asap then can be presented to BBS.	GBA		
<b>1.3</b>	<b>Section 2</b>			
<b>1.3.1</b>	No issues.			
<b>1.4</b>	<b>Section 5a</b>			
<b>1.4.1</b>	<b>SRU</b>			
	It has been agreed that whatever movement is required forboth tram and flood is to be done as part of tram project.			
<b>1.4.2</b>	<b>Balgreen</b>			

	Not discussed			
<b>1.5</b>	<b>Section 6</b>			
<b>1.5.1</b>	<b>Depot</b>			
	Nothing further			
<b>1.6</b>	<b>System Wide</b>			
<b>1.6.1</b>	<b>Drainage</b>			
	Not discussed.			
<b>1.6.2</b>	<b>Utilities</b>			
	Not discussed.			
<b>1.7</b>	<b>Other Design Issues</b>			
	Possible Contaminated Landfill site at Gogar. Discussions are now open. SDS to carry out actions from meeting last week. tie to provide instruction.			
<b>2</b>	<b>Critical Design Locations</b>			
	<b>No others</b>			
<b>3</b>	<b>Critical Programme Impacts</b>			
<b>3.1</b>	<b>MUDFA</b>			
	- CEC waiting for report on reinstatement from tie and AMIS. - DF raised general concerns about site supervision and quality of reinstatement. DC to raise issue with GBA. - GBA requires an update from JC on the 2 day slippage of 2 plates. - Protocol to working weekends and nights. Better planning required. To be discussed further at next meeting.	<b>tie/AMIS</b>  <b>DC</b>  <b>JC</b>		
<b>3.2</b>	<b>VE</b>			
	- DC seeing BBS on structures on Tuesday. - Where the road level is to be lowered a discussion needs to occur regarding alternative mechanisms to reconstruct road. JC to trigger meeting particularly for Princes Street.	<b>JC</b>		
<b>3.4</b>	<b>Deliverables Tracker</b>			
	The column showing the percentage completed of late deliverables has been added as of 8/11/07.			
<b>3.5</b>	Not discussed.			
<b>4</b>	<b>AOB</b>			
<b>4.1.1</b>	<b>Deliverables</b>			
	- GBA concerned with getting bidder access to designs - Need package lists for all deliverables to date. JC to provide all before Tuesday.	<b>JC</b>		
<b>4.1.2</b>	<b>Design Management Plan (DMP)</b>			
	DC went through process of DMP. Need to tie process in with Infracore's programme.			
<b>4.1.3</b>	<b>Approvals Tracker</b>			
	- Prior Approvals – No issues the process is working well although we are late. - Technical Approvals – Difficulties are structure and roads and lighting. - CEC have no knowledge of what is available and what they are being asked to approve. - SDS to create transmittals and request approval for specific packages.	<b>SDS</b>		
<b>4.1.4</b>	<b>Tram Lengths Impact Report</b>			
	DS to chase up. LM and DS to discuss.	<b>DS/LM</b>		
<b>4.1.5</b>	<b>BBS</b>			
	Through CEC talks with BBS regarding construction,			

	BBS have stated their scope of work is different. BBS to be updated with all drawings and with where design currently stands. BBS has based their price on much fewer drawings.			
<b>4.1.6</b>	IS noted that his design team is looking for cross sections to help their understanding. SDS to provide these to CEC. AD to deliver cross section positioning to tie.	<b>SDS</b>		
	<b>Date of Next Meeting:</b> Friday, 16 <sup>th</sup> November 2007	<b>AD</b>		

<b>Plans or Drawings provided at Meeting</b>	
<b>1</b>	
<b>2</b>	
<b>3</b>	
<b>4</b>	



**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 16<sup>th</sup> November 2007**

**MacAdam Room**

**Present:**

David Crawley	DC	Alan Dolan - SDS	AD	Keith Rimmer	KR
Gabrielle Bedwell	GB	Andy Conway	AC	Scott Ney	SN
Kirsty Wilson	KW	Graeme Barclay	GBA	Duncan Fraser	DF
Damian Sharp	DS	Steven Bell	SB	Lindsay Murphy	LM
Mark Hamill	MH	Gavin Murray	GM	Gavin Clement	GC

**Apologies**

Jason Chandler	JC
Steve Reynolds	SR

1	Actions arising from last weeks minutes	Who	When	Status
<b>1.1</b>	<b>Forth Ports Section 1a</b>			
	GBA needs confirmation to assess impact on utilities. GBA to receive best available information now from SDS. SDS expect to have a fixed design by 4 weeks time. SDS to progress design with Forth Ports over next 4 weeks. GBA can't make any progress until kerb alignment is given the OK. SDS will send what they have for GBA to do initial assessment.	<b>SDS</b>		
<b>1.2</b>	<b>Section 1c</b>			
<b>1.2.1</b>	<b>Picardy Place</b>			
	-GBA confirmed MUDFA works are planned beginning of June to July inclusive. -GBA needs utility design from SDS with new design plan overlaid. Meeting occurring after this meeting to discuss.			
<b>1.3</b>	<b>Section 2</b>			
<b>1.3.1</b>	No issues.			
<b>1.4</b>	<b>Section 5a</b>			
<b>1.4.1</b>	<b>SRU</b>			
	Meeting of SRU on 6/11. Andrew Holmes gave SRU comfort that city is to promote move to 4 reconfigured pitches in advance of tram. Heads of terms still being arranged between SRU and tie.			
<b>1.4.2</b>	<b>Balgreen</b>			
	Not discussed			
<b>1.5</b>	<b>Section 6</b>			

<b>1.5.1</b>	<b>Depot</b>			
	Nothing further			
<b>1.6</b>	<b>System Wide</b>			
<b>1.6.1</b>	<b>Drainage</b>			
	Not discussed.			
<b>1.6.2</b>	<b>Utilities</b>			
	Not discussed.			
<b>1.7</b>	<b>Other Design Issues</b>			
	Possible Contaminated Landfill site at Gogar. Discussions are now open. SDS to carry out actions from meeting last week. tie to provide instruction.	<b>LM/DS</b>		
<b>2</b>	<b>Critical Design Locations</b>			
	No others			
<b>3</b>	<b>Critical Programme Impacts</b>			
<b>3.1</b>	<b>MUDFA</b>			
	- Site supervision: Protocol is now in place for handover for AMIS and MUDFA. - Reinstatement: GBA is putting together a paper to ensure everyone is in agreement. Paper to be issued to CEC by critical issues meeting on 30/11. - Slippage was discussed. SDS need help from Ian Clark and Michael Blake to get SUC outside LOD. - Working weekend and nights: Steve Williamson has no comment on how works are carried out but if complaints are received during these times then works will be stopped. Last weekend experienced no such problems. - Issue on 5C: Diversion of privately owned utilities within LOD. Requires instruction from GBA to DS. Lists to be provided with names of owners. DS to instruct SDS to proceed.	<b>GBA/DS</b>		
<b>3.2</b>	<b>VE</b>			
	Not discussed.			
<b>3.4</b>	<b>Trackers</b>			
<b>3.4.1</b>	Deliverables Tracker			
	- SDS to confirm status of 7A alignment. - It was noted that everything should be on the tracker at all times. - After the addition of the '% completed' column, it has been brought to attention that within the last 4 weeks a cumulative delay of over 1000 days has occurred. - The '% completed' column will now be tracked on a week to week basis.	<b>SDS</b>		
	Schedules			
	-The schedules linking activity numbers to package details should be issued to tie today. DC/DS to test with AD. - Need to look and pre-empt any problems that could be caused by CEC's slow connection. This may restrict efficiency of downloading drawings. -DF to provide programme on the back of this. DF needs to see Infracore programme to see which are critical items.	<b>SDS</b>		
	- BBS want work in progress (WIP) drawings from SDS. SDS are to provide WIP drawings on structures and associated Gas only to BBS. tie to inform BBS of what they will be receiving. SDS to confirm any impact this may have on programme.	<b>SDS/tie</b>		

	- BBS do not have critical locations on route. SN is providing BBS with a scroll for the end of this week.			
3.5	Not discussed.			
4	<b>AOB</b>			
4.1.1	<b>Deliverables</b>			
	See above.			
4.1.2	<b>Design Management Plan (DMP)</b>			
	AC stated that IDC needs to occur prior to technical approval			
4.1.3	<b>Approvals Tracker</b>			
	See above.			
4.1.4	<b>Tram Lengths Impact Report</b>			
	LM received from AS. LM to review.			
4.1.5	<b>BBS</b>			
	WIP drawings – see above.			
4.1.6	Cross sections have been given to Bob Dawson to go to BBS.			
4.2	<b>This Weeks AOB</b>			
4.2.1	SN followed up letters on planning items. There are 3 letters that require response from tie.	DS		
4.2.2	Roseburn Terrace Bridge: Agreement from Historic Scotland is required for current proposal. Achieving this agreement is becoming an issue. Meeting on Wednesday.			
4.2.3	SDS Programme and BBS Programme: Comparison of V21 with BBS's programme has highlighted 4 potentially large issues. There are overlaps of which 2 have zero float between completions. There are 2 that clash badly. SDS to receive copy of comparison sheet.	DS		
4.2.4	Critical Staff: SR to give an update on schedule 8. SR to respond with letter.			
4.2.5	EMC and Stray Current: SB detailed discussion with Bruce Ennion and Colin Kerr on modelling work and safety. SR confirmed deployment of appropriate resources to meet agreed programme with Network Rail. SB requires confirmation that staff have been deployed. AD to inform Colin Kerr and produce programme. Bruce Ennion to be main contact for Colin until specialists arrive.	AD		
	<b>Date of Next Meeting:</b> Friday, 16 <sup>th</sup> November 2007			

<b>Plans or Drawings provided at Meeting</b>	
1	
2	
3	
4	





**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 23<sup>rd</sup> November 2007**

**MacAdam Room**

**Present:**

David Crawley	DC	Alan Dolan	AD	Gavin Clement	GC
Gabrielle Bedwell	GB	Andy Conway	AC	Kate Shudall	KS
Kirsty Wilson	KW	Steve Reynolds	SR	Graeme Barclay	GBA
Lindsay Murphy	LM	Scott Ney	SN	Clare Norman	CN
Duncan Fraser	DF	Andy Steel	AS	Bruce Ennion	BE

**Apologies**

Jason Chandler	JC	Damian Sharp	DS
Mark Hamill	MH	Steven Bell	SB
Gavin Murray	GM		

1	Actions arising from last weeks minutes	Who	When	Status
<b>1.1</b>	<b>Forth Ports Section 1a</b>			
	SDS progressing to get initial design. Starting this week they will have an initial draft for GBA in 4 weeks.	<b>SDS</b>	<b>21/12/07</b>	
<b>1.2</b>	<b>Section 1c</b>			
<b>1.2.1</b>	<b>Picardy Place</b> - GBA needs road levels. SN to confirm receipt of change order. It was decided that AS would instruct David Lynch to provide what is required to GBA. - Update with completion of detailed design; SDS received change order last night, this will cause further delay to 1C.	<b>AS</b>		
<b>1.3</b>	<b>Section 2</b>			
<b>1.3.1</b>	No issues.			
<b>1.4</b>	<b>Section 5a</b>			
<b>1.4.1</b>	<b>SRU</b> Meeting yesterday. Moving forward on basis of 4 pitch move – side agreement adjusted to accommodate this. Signing of Heads of Terms still imminent.			
<b>1.4.2</b>	<b>Balgreen</b> Not discussed			
<b>1.5</b>	<b>Section 6</b>			
<b>1.5.1</b>	<b>Depot</b> Nothing further			

<b>1.6</b>	<b>System Wide</b>			
<b>1.6.1</b>	<b>Drainage</b>			
	Not discussed.			
<b>1.6.2</b>	<b>Utilities</b>			
	Not discussed.			
<b>1.7</b>	<b>Other Design Issues</b>			
	Possible Contaminated Landfill Site at Gogar: LM and GM had meeting with SDS. Actions are to be followed from that. tie are to send a letter with confirmation of which action.	<b>LM/DS</b>		
<b>2</b>	<b>Critical Design Locations</b>			
	No others			
<b>3</b>	<b>Critical Programme Impacts</b>			
<b>3.1</b>	<b>MUDFA</b>			
	Issue on diversion of privately owned utilities has been resolved. Work is being progressed. - Slippage occurring in IFC: Rev 6 programme now creeping into period AMIS require for planning. Can be managed as long as no more slippage occurs. Finalising SUC approval is holding up IFC. Ian Clark is required to assist. - Sewer surveys: GBA has given most information. SDS to come back with issues outstanding for Wednesday. - Discussion with Scottish Water for Gogar took place yesterday. Scottish Water don't want 2.3m cover only 900mm. Moving water main in footpath area. Change in horizontal alignment. Reduces length of pipe therefore cost savings can be created. Get acceptance by Scottish Water. - GBA raised the issue of what contingency we have allowed for access into depot if a problem occurs with the 800mm diameter water main. It was decided that this problem can be overcome.	<b>SDS</b>		
<b>3.2</b>	<b>VE</b>			
	Structures investigations progressed. Getting numbers today. There is a requirement for clarity over the position of SDS and BBS designs and integrations. DC having discussion with Geoff Gilbert.	<b>SDS/DC</b>		
<b>3.4</b>	<b>Trackers</b>			
<b>3.4.1</b>	<b>Deliverables Tracker</b>			
	- BBS access to drawings: SDS gave drawings to tie on Tuesday. BBS now have all structures drawings. - Detailed Design – Edinburgh Park delivered today as V17. - BBS can't provide programme as they don't yet know design. - Received schedule on Monday which links deliverables with documents. There is less on the schedule than is indicated by completed items on the tracker. Approx 20. Also there are a few the other way around. On collaboration site there are significantly less on tracker than in design deliverable site. Need to understand what we are seeing. Schedule and tracker need to be aligned. - DS highlighted no update to percentage completed column on this week's tracker. 1314 more days delay between 9/11 and 16/11 on top of 1299 days	<b>SDS</b>		

	<p>between 26/10 and 2/11. Percentage complete column must be updated weekly. Discussion to be had on how to present trackers progression in a more useful form. SDS stated that the delay was manageable.</p> <p>- Prior approvals seem to be working well. There seemed to be some confusion surrounding technical approvals. Meeting to occur with SDS, CEC and tie to go through process.</p>	<p><b>SDS</b></p> <p><b>SDS/CEC/tie</b></p>		
<b>3.5</b>	Not discussed.			
<b>3.6</b>	Not discussed.			
<b>3.7</b>	<b>EMC and Stray Current</b>			
	<p>Letter sent to SDS regarding the lack of progress on EMC. AD provided programme at meeting. tie to choose who to progress with work, Simon Price or David Bradley to kick start modelling. SP says to go out over xmas possession to do resistivity calculations along the route. Method statement to be prepared. Network Rail report from SDS ready at end of November (on schedule).</p> <p>Model produced is a framework model to be passed over to Infracore.</p> <p>AD has put package together. On Monday one of the engineers will need verification and that's what SP needs to do over xmas. If SP is required to do more verification other than resistivity then CK is to instruct. DB to talk to SP to ascertain what is required.</p> <p>Network Rail possession – closure of information date is not yet decided. AD needs confirmation on Monday regarding SP reducing his involvement. To have a 20 minute meeting on Tuesday night prior to meeting on Wednesday.</p>	<p><b>tie</b></p> <p><b>SDS</b></p> <p><b>CK</b></p>		
<b>4</b>	<b>AOB</b>			
<b>4.1.1</b>	<b>Tram Lengths Impact Report</b>			
	<p>LM and AS have done the assessment. Need directorate instruction from tie. No issues at depot. Tramstop – tram grown, platform hasn't. Tram still fits but margin is less. Not ideal but satisfactory. tie to confirm acceptance. View of designer is that there are a few stops to be reviewed more carefully. Need to scope impact on programme. It is a planning issue to extend the platform. SDS require clear instruction on what is required. If alignment needs rework it will cause delay.</p>	<b>tie</b>		
<b>4.1.2</b>	<p>Roseburn Terrace Bridge: Agreement from Historic Scotland is required for current proposal. Achieving this is becoming an issue. To be brought back to TDWG on Wednesday. Design statement to be revised and closed out at TDWG.</p>	<b>SDS</b>		
<b>4.1.3</b>	<b>SDS Programme and BBS Programme</b>			
	<p>DS to send SDS and BBS programme comparison to SDS.</p>	<b>DS</b>		
<b>4.2</b>	<b>This Weeks AOB</b>			
<b>4.2.1</b>	<b>Design Review</b>			
	<p>- There was no representative from RDWG at Thursdays Design Review (22/11/07 – Roads 2A).</p> <p>- Need to chase up invitees and if a lot decline then review session is to be postponed.</p>	<b>KW</b>		

<b>4.2.2</b>	<b>OLE Poles</b>			
	BBS proposed to put OLE poles in the centre. AC asked who under what power can ok this. Where is VE in relationship to this? Need to find out if this is really a cost saving exercise by the time the whole process has been redone. AC drew attention to the fact that the final price should be accompanied by scope list definition which includes the total price. CEC require clarification.			
<b>4.2.3</b>	<b>7A Track Alignment</b>			
	KS wrote letter, agreed with Lindsay Murphy information coming for utilities. KS needs meeting to discuss cost constraints badger tunnels are raising. Alignment by airport is fairly constrained. Secondary alignment has been produced without badger constraint. This demonstrates the cost. KS to send to BAA. Send to IC with caveats. Drainage is less onerous than previously thought but badgers are more so.	<b>KS</b>		
<b>4.2.4</b>	<b>Noise and Vibrations</b>			
	Report received from SDS on what noise and vibration surveys will be carried out. GM requires info on what we expect and what mitigation is required. If no mitigation is required then why not. No comparative analysis has been presented to tie. What is SDS's interpretation of baseline? SDS say they had no agreement to do interpretation. SDS to get back to LM.	<b>SDS</b>		
<b>4.2.5</b>	<b>GI Interpretive Report</b>			
	What is SDS's intention? Two weeks after summary they will deliver interpretive report (by end of month). Definition of interpretive? Request from BBS to see detailed earthworks design.			
	<b>Date of Next Meeting:</b> Friday, 30 <sup>th</sup> November 2007			

<b>Plans or Drawings provided at Meeting</b>	
<b>1</b>	Draft EMC Plan for Network Rail.
<b>2</b>	
<b>3</b>	
<b>4</b>	



**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 30<sup>rd</sup> November 2007**

**MacAdam Room**

**Present:**

Tony Glazebrook	TG	Andy Conway	AC	Kate Shudall	KS
Gabrielle Bedwell	GB	Graeme Barclay	GBA	Clare Norman	CN
Kirsty Wilson	KW	Steve Reynolds	SR	Gavin Murray	GM
Damian Sharp	DS	Scott Ney	SN		

Apologies

Jason Chandler	JC	Lindsay Murphy	LM
Mark Hamill	MH	Steven Bell	SB
Gavin Murray	GM	David Crawley	DC

1	Actions arising from last weeks minutes	Who	When	Status
1.1	<b>Forth Ports Section 1a</b>			
	SDS progressing on programme to have an initial draft for GBA by 21/12/07.	SDS	21/12/07	
1.2	<b>Section 1c</b>			
1.2.1	Picardy Place WEN has been issued to TSS for final work. Sir Terry doesn't like T-Junction option and prefers the gyratory.			
1.3	<b>Section 2</b>			
1.3.1	No issues.			
1.4	<b>Section 5a</b>			
1.4.1	<b>SRU</b> SRU is being held up due to CEC including flood mitigation measures. Need confirmation from the city for tie to proceed with this. In delay because of it but it is for the overall public good and will ultimately save money for the public.			
1.4.2	<b>Balgreen</b> Not discussed			
1.5	<b>Section 6</b>			
1.5.1	<b>Depot</b> Nothing further			
1.6	<b>System Wide</b>			
1.6.1	<b>Drainage</b>			

	Not discussed.			
<b>1.6.2</b>	<b>Utilities</b>			
	Not discussed.			
<b>1.7</b>	<b>Other Design Issues</b>			
	Possible Contaminated Landfill Site at Gogar: no longer an issue.			
<b>2</b>	<b>Critical Design Locations</b>			
	No others			
<b>3</b>	<b>Critical Programme Impacts</b>			
<b>3.1</b>	<b>MUDFA</b>			
	<ul style="list-style-type: none"> <li>- GBA still waiting for information. SDS is to prioritise sewer info that is still outstanding.</li> <li>- Jane Street – BT location for proposed new chamber is directly over sewer. BT say 2 weeks for redesign. Need SDS to be up and running to make sure design occurs within this time.</li> <li>- Line 1B – track at Caroline Park is over a 10,000l/s combined storm overflow. We have time to look at this.</li> </ul>	<p style="text-align: center;"><b>SDS</b></p> <p style="text-align: center;"><b>SDS</b></p>		
<b>3.2</b>	<b>VE</b>			
	Position held. SDS met with BBS and looked at their expectations for progressing the design past SDS's design. SDS's stated their design appears to have been more detailed than BBS were expecting.			
<b>3.4</b>	<b>Trackers</b>			
<b>3.4.1</b>	<b>Deliverables Tracker</b>			
	<ul style="list-style-type: none"> <li>- 90 deliverables remaining. SDS are behind curve but a lot of the deliverables (eg tramstops) are essentially complete. BBS have asked how tie will verify design to be correct. tie will carry out their reviews at the same time as CEC are doing theirs.</li> <li>- CN putting together tracker of prior approvals, technical approvals and DVS against deliverables. SR is aiming to have a fully integrated programme by next Tuesday. TG and CEC to receive this.</li> <li>- GBA discussed with AD that there are 4 packages due in December that require re-shifting. GBA confirmed with SR which packages these were.</li> </ul>	<b>CN/SR</b>		
<b>3.5</b>	Not discussed.			
<b>3.6</b>	Not discussed.			
<b>3.7</b>	<b>EMC and Stray Current</b>			
	Issues resolved.			
<b>4</b>	<b>AOB</b>			
<b>4.1.1</b>	<b>Tram Lengths Impact Report</b>			
	LM and AS have done the assessment. Need directorate instruction from tie. No issues at depot. Tramstop – tram grown, platform hasn't. Tram still fits but margin is less. Not ideal but satisfactory. tie to confirm acceptance. View of designer is that there are a few stops to be reviewed more carefully. Need to scope impact on programme. It is a planning issue to extend the platform. SDS require clear instruction on what is required. If alignment needs rework it will cause delay.	<b>tie</b>		
<b>4.1.2</b>	Resolved.			
<b>4.1.3</b>	<b>SDS Programme and BBS Programme</b>			
	New update of comparison out of meeting today. Trackform changed to meet programme - SB has in			

	hand. Different design can cause a lot of problems. SB to be informed of Wheel Rail Interface position.			
<b>4.2</b>	<b>This Weeks AOB</b>			
<b>4.2.1</b>	<b>Design Review</b>			
	Correction to previous minutes: -Robin Goodwin (CEC) was the only representative from RDWG at Thursdays Design Review (22/11/07 – Roads 2A). Need to chase up invitees and if a lot decline then review session is to be postponed.			
<b>4.2.2</b>	<b>OLE Poles</b>			
	Correction to previous minutes: BBS proposed to put <b>stepped</b> OLE poles in the <b>city</b> centre. CEC require clarification. BBS don't have tapered columns in their design. This raised concerns that planning won't accept lack of tapering. TG to raise with BBS. - Public domain document is to be produced – TG to speak to Matthew Crosse.	<b>TG</b> <b>TG</b>		
<b>4.2.3</b>	<b>7A Track Alignment</b>			
	KS sent alignments to BAA and Ian Clark. KS to arrange meeting with tie regarding alignment/badger tunnels etc. A lot of constraints are conflicting.	<b>KS</b>		
<b>4.2.4</b>	<b>Noise and Vibrations</b>			
	Additional surveys required, won't be in noise assessment as they weren't previously identified. SDS never received change notices. DS to investigate. SDS to send historical and new change requests to DS.	<b>SDS/DS</b>		
<b>4.2.5</b>	<b>GI Interpretive Report</b>			
	SR and Matthew Crosse discussed. SDS feel BBS are trying to shift risk to tie. How will BBS meet requirements of ITT? What is BBS's procurement mechanism for dealing with uncertainty? SDS feel they have done enough to follow the design and satisfy industry standards, they also feel BBS are the experts in this field and they should be dealing with this.			
<b>4.2.6</b>	SR highlighted BBS's main concerns are GI and trackform.			
	<b>Date of Next Meeting: Friday, 7<sup>th</sup> December 2007</b>			

	<b>Plans or Drawings provided at Meeting</b>
<b>1</b>	
<b>2</b>	
<b>3</b>	
<b>4</b>	



**Tram Project – Minutes from Critical Issues Meeting**

**0900 Friday 7<sup>th</sup> December 2007**

**MacAdam Room**

**Present:**

David Crawley	DC	Graeme Barclay	GBA	Alan Dolan	AD
Glen Aitken	GA	Andy Conway	AC	Bruce Ennion	BE
Lindsay Murphy	LM	Steve Reynolds	SR		
Tom Hickman	TH	Jason Chandler	JC		
Mark Hamill	MH	Scott Ney	SN		

**Apologies**

Tony Glazebrook	TG	Gabrielle Bedwell	GB	Clare Norman	CN
Gavin Murray	GM	Steven Bell	SB	Kate Shudall	KS
Kirsty Wilson	KW	Susan Clark	SK		

<b>1</b>	<b>Key action of this meeting</b>	<b>Who</b>	<b>When</b>	<b>Status</b>
<b>1.1</b>	<b>Changes to the Prior Approvals Process</b>			
	<p>To ensure that the IFC dates are consistent with BBS construction dates, <b>tie</b> (DC) seeks to determine the feasibility of a change to the Prior Approvals process. <b>tie</b> indicates that, presently, a period of eight weeks is allocated to each tracked item.</p> <p>It is argued that if consultation between all interested parties is handled effectively, then this period can be reduced. It is, therefore, proposed by <b>tie</b> that:</p> <ul style="list-style-type: none"> <li>(i.) the mandatory per-item duration is reduced from 8 weeks to four weeks;</li> <li>(ii.) any contingency options are stripped-out of the existing process;</li> <li>(iii.) an Alternative Management Forecast is produced by SDS to supplement the removal of contingency options, providing an overview of recent events and outcomes, since the programme has baked-in assumptions.</li> </ul> <p>SDS state that the batching of Prior Approvals designs is a significant issue which has the potential to affect the IFC dates.</p>	<p><b>tie</b></p> <p>SDS</p> <p>SDS</p> <p>SDS</p>		Open



	<p><b>tie</b> (DC) acknowledge that any iteration caused by V.E. will result in the programme falling behind. Therefore, there will be no change until BBS instruct <b>tie</b> as a massive swing late will likely result in an increase to the Cost Delta. <b>tie</b> will, therefore, supply SDS with a list of “problem” structures (e.g. with regard to lead-time) which can be used to determine the driver behind IFC dates, since the Prior Approvals process is not always the driver for the IFC end date.</p> <p>SDS (SR/JC) indicate that they have a high-level of confidence in the existing Prior Approvals schedule with regard to Structures, with particular regard to TAA and CAT II. SDS (JC) state that they are systematically reviewing “conflict” items</p> <p><b>ACTIONS:</b></p> <p>A. <b>tie</b> (TH) will supply SDS with a list of “problem” structures (e.g. with regard to lead-time);</p> <p>B. Following receipt of <b>tie</b>’s list of “problem” structures, SDS (JC) will return on Friday 14<sup>th</sup> December, 2007 and demonstrate what can be mitigated – having determined the critical path for each structure (TAA, batches);</p> <p>C. The BBS programme, as now agreed by TEL (TH), is to be passed to CEC;</p> <p>D. SDS is asked to provide <b>tie</b> (DC) with a set of construction dates post-IFC.</p>	<p><b>tie</b></p> <p><b>tie</b></p> <p>SDS</p> <p><b>tie</b></p> <p>SDS</p> <p><b>tie</b></p> <p>SDS</p>		
<b>2</b>	<b>Critical Issues arising from last week’s minutes</b>			
	Section 2 refers to the minutes of the Critical Issues Meeting dated 30 <sup>th</sup> November, 2007.			
<b>2.1</b>	<b>Forth Ports – Section 1A</b>			
	SDS progressing on programme to have an initial draft for GBA on 21/12/07.	SDS	21/12/07	Progressing
<b>2.2</b>	<b>Section 1c – Picardy Place</b>			
	<p>To ensure that there will be little or no impact on the cost, programme and BT utilities infrastructure in-relation to Picardy Place, the following points seek to be addressed:</p> <p>(i.) SDS confirm that they are continuing with the gyratory scheme until, and if, a change instruction is received;</p> <p>(ii.) CEC still desire to see the Picardy Place T-Junction in-use and <b>tie</b> are minded to issue a change order pending receipt of revised change estimates;</p> <p>(iii.) If the change estimates prove acceptable to <b>tie</b>, then the change order will be issued;</p> <p>(iv.) <b>tie</b> needs to confer with (GBA) about changes to the T-Junction design,</p>	<p>SDS</p> <p>CEC/<b>tie</b></p> <p><b>tie</b></p> <p><b>tie</b> (GBA)</p> <p><b>tie</b></p>		Open

	<p>confirming that BT designs are not affected.</p> <p>(v.) BBS have been notified by <b>tie</b> that the intention at Picardy Place is to adopt a T-Junction design. BBS have agreed both programme and construction with <b>tie</b>.</p> <p><b>ACTIONS:</b></p> <p>A. <b>tie</b> (Damian Sharp) will address Section 2.2, points (ii.) to (iv.).</p>	<b>tie</b>		
<b>2.3</b>	<b>Other Design Issues</b>			
	With specific regard to the possible contaminated Landfill Site at Gogar, <b>tie</b> will confirm that this issue has been addressed and no instruction(s) issued.	<b>tie</b>		Open
<b>2.4</b>	<b>MUDFA</b>			
	<p>(i.) The issue of outstanding sewer information has been closed;</p> <p>(ii.) The issue of the BT location for the proposed new chamber is still to be addressed;</p> <p>(iii.) The Caroline Park track issue in Phase 1b is no longer an issue. SDS (AD) indicates that two CADs need reviewing.</p> <p><b>tie</b> (TH) will provide SDS with a list of “problem” Structures (as mentioned in 1.1), determined from the Logic Drivers that exist within the Edinburgh Tram Tender programme. This list has been appended to these minutes as Section 4, Appendix A.</p>	<p>SDS</p> <p>SDS</p> <p>SDS</p> <p><b>tie</b></p>		<p>Closed</p> <p>Open</p> <p>Open</p>
<b>2.5</b>	<b>EMC and Stray Current</b>			
	Work continuing at present.	<b>tie/SDS</b>		Open
<b>2.6</b>	<b>Tram Lengths Impact Report</b>			
	<p>SDS require clarification of tram dimensions. <b>tie</b> (DC) asks SDS ever received an instruction about tram length and SDS (JC) states that they have not.</p> <p><b>ACTIONS:</b></p> <p>A. David Powell is to provide comment to <b>tie</b></p> <p>B. <b>tie</b> (David Crawley) is review, understand and present <b>tie</b>'s view on tram:</p> <p>a. length;</p> <p>b. weight;</p> <p>c. DKE</p> <p>d. tractive effort;</p> <p>e. Auxiliary power supplies;</p> <p>f. Floor height.</p>	<p><b>tie</b></p> <p><b>tie</b></p> <p><b>tie</b></p>		Open
<b>2.7</b>	<b>OLE Poles</b>			
	<p>CEC require a benchmark for what the BBS contract offers.</p> <p>(v.s.)</p>	CEC		Open

	<b>ACTION:</b>  <b>tie</b> (DC) will determine who is processing this data and return to CEC.	<b>tie</b>		
<b>2.8</b>	<b>7A Track Alignment</b>  SDS to inform <b>tie</b> of the outcome of Kate Shudall's meeting on 11/12/2007 pertaining to this outstanding issue.	SDS		Open
<b>3</b>	<b>Other MUDFA Issues</b>			
<b>3.1</b>	SDS (AD) indicate that Scottish Water will sign-off on their acceptance of presented designs on Monday. Some designs, however, will be returned for further discussion (e.g. 52, 26).  <b>tie</b> (GBA) seeks diversion information from SDS for the installation of structures, e.g. retaining walls, where it is important to facilitate ease-of-access to, and progress at, construction sites by BBS contractors.	SDS  SDS		Open
<b>3.2</b>	<b>All Other Issues</b>  In seeking to understand the scope of additional works, CEC (AC) note that utilities in shallow areas (e.g. where a footway becomes lower) may need to be reconstructed across the entire ETN during construction. CEC asks how <b>tie</b> /SDS know what such utilities are located where with respect to the level of track and alignment.  <b>ACTIONS:</b>  A. SDS will provide an answer via road designs in IDC, flagging-up which utilities are affected; B. <b>tie</b> will review whether the Scope of Risk has changed and establish what is in the Risk Register and whether there is a corollary in the BBS contract.	CEC  SDS  <b>tie</b>		Open
<b>4</b>	<b>APPENDIX A</b>			
	10660	Russell Road Retaining Wall		
	10690	Murrayfield Retaining Walls		
	10690	Baird Drive Retaining Wall		
	10730	Murrayfield Retaining Walls		
	10740	Murrayfield Tramstop Retaining Wall		
	10810	Carricknowe		
	10860	Bankhead Retaining Wall		
	11970	Roadworks		
	11980	Trackworks		
	12000	Lindsay Road Retaining Wall		
	12030	Victoria Dock Bridge		
	12040	Tower Place Bridge		
	12070	Russell Road Bridge		
	12210	Trackworks		

	12880	South Gyle Access Bridge
	12900	Trackworks
	12940	Edinburgh Park Station Bridge
	12950	Trackworks
	12980	A8 Underpass
	13020	Trackworks
	13040	Gogarburn Underbridge
	13050	Gogarburn Culvert No. 1
	13080	Gogarburn Retaining Wall No. 1
	13090	Gogarburn Culvert No. 2

<b>Date of Next Meeting:</b> Friday, 14 <sup>th</sup> December, 2007
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	<b>Plans or Drawings provided at Meeting</b>
<b>1</b>	No Plans or Drawings were presented.



**Tram Project – Minutes from Critical Issues Meeting**

**0930 Friday 14<sup>th</sup> December 2007**

**MacAdam Room**

**Present:**

Tony Glazebrook	TG	Clare Norman	CN	Gavin Clement	GC
Glen Aitken	GA	Alan Dolan	AD		
Damian Sharp	DS	Bruce Ennion	BE		
Kirsty Wilson	KW	Kate Shudall	KS		
Apologies					
David Crawley	DC	Tom Hickman	TH	Steve Reynolds	SR
Gavin Murray	GM	Mark Hamill	MH	Jason Chandler	JC
Lindsay Murphy	LM	Steven Bell	SB	Scott Ney	SN
Graeme Barclay	GBA	Susan Clark	SC	Andy Conway	AC

1	Critical Issues arising from last week's minutes	Who	When	Status
1.1	<b>Changes to the Prior Approvals Process</b>			
	<p>SDS (KS) indicates that a meeting with CEC at which this matter will be addressed is due to take place on Thursday, December 20<sup>th</sup>, 2007.</p> <p>SDS further states that Formal Prior Approvals cannot be shortened in-line with tie's proposed process change but that Informal Prior Approvals could possibly be.</p> <p>tie notes that Tom Hickman has supplied SDS with a list of "problem" structures (e.g. with regard to lead-time). This will be re-issued informally if it has not reached its intended recipients.</p> <p><b>ACTIONS:</b></p> <p>C. SDS will return the outcome of their meeting with CEC.</p>	SDS		Open
1.2	<b>Forth Ports – Section 1A</b>			
	<p><b>ACTIONS:</b></p> <p>A. SDS to provide Graeme Barclay (tie) with a "best-guess" footprint of Lindsay Road</p>	SDS		Open

	retaining wall.			
<b>1.3</b>	<b>Section 1c – Picardy Place</b>			
	SDS (AD) is awaiting a letter of instruction from <b>tie</b> to proceed. <b>tie</b> (DS) informs SDS that the gyratory design must proceed until such time as <b>tie</b> instruct SDS otherwise.	<b>tie</b>		Open
<b>1.4</b>	<b>MUDFA</b>			
	(iv.) SDS (AD) indicates that they promote putting the 1500mm sewer pipe parallel to the A8 underpass following discussion with Willy Kerber at Scottish Water. This is considered to be a safe design.  (v.) SDS (AD) note with concern that BT is the only outstanding SUC not to have given their acceptance to designs for “plates” 14-20, 39-41 and 52-56. Given that Scottish Water have provided verbal approvals of these designs, yet BT have not, SDS seek <b>tie</b> assistance in getting BT to bring their plans forward. SDS require BT to begin cabling-up soon (in-line with v6 of the programme against which they are working).  <b>ACTIONS:</b>  A. Graeme Barclay to determine whether MUDFA or Infracore undertake the (i.) works. B. Ian Clark is recommended to liaise with BT (ii.).	<b>tie</b>  <b>tie</b>		Open  Open
<b>1.5</b>	<b>EMC and Stray Current</b>			
	Work continuing at present. Some concerns – to be dealt with outwith this meeting	<b>tie/SDS</b>		Open
<b>1.6</b>	<b>Tram Lengths Impact Report</b>			
	<b>tie</b> (DS) queries whether SDS has received a change order regarding Tram weight.  Outstanding issues remain, as below, seen by SDS comment:  a. Width – Tram CCTV “ears” are an issue; b. Weight - axle loading too high; c. DKE – see a); d. Tractive effort – higher than expected – might cause traction power supply issues; e. Auxiliary power supplies – demand higher than expected; f. Floor height.  <b>ACTIONS:</b>  A. <b>tie</b> (TG/Glen) to determine who (David Powell?) is leading the Platform/Train	<b>tie</b>		Open

	Interface problem in respect of the opening doors fouling the platforms.			
<b>1.7</b>	<b>OLE Poles</b>			
	CEC require a benchmark for what the BBS contract offers – e.g. stepped or tapered poles.  <b>ACTION:</b>  Geoff Gilbert (tie) is processing this data and will return to CEC.	tie		Open
<b>1.8</b>	<b>7A Track Alignment</b>			
	<b>ACTION:</b>  SDS (KS) will provide comment at the Design Review meeting on December 20 <sup>th</sup> , 2007. SDS believe that the levels can be reduced.	SDS		Progressing
<b>1.9</b>	<b>Other MUDFA Issues</b>			
	SDS stated that with regard to the embankment issue at the Gogar depot (N.B. Russell Road Retaining Wall 2), MUDFA must press-on so that the Infraco can complete their work.  In seeking to understand the scope of additional works, CEC (AC) noted (Critical Issues meeting, 07/12/07) that utilities in shallow areas (e.g. where a footway becomes lower) may need to be reconstructed across the entire ETN during construction. SDS (AD) indicates that they have met with Andy Conway (CEC) and Graeme Barclay to address this matter and note that there may be areas where issues appear as the Infraco's work progresses.			Progressing
<b>2</b>	<b>Other Issues</b>			
	SDS raised several issues:  i. a partial programme submission in February 2008 will show a different curve against the programme. SDS (AD) will perform a prior-review of the curve in lieu of February;  ii. CEC has asked them to deliver a package list of what will come in each Technical Approval. This will be provided to them as a comprehensive document, rather than just focusing on roads (KS);  iii. they wish to determine a process for wide-area modelling, which has just begun. An as-issued Change Order for £315,000 looked at the maximum wide-area modelling that SDS would have to undertake. SDS will cost each separate package of work to enable cost monitoring to be done more easily. The period costs can then be deducted from the agreed	SDS  SDS		Open  Open

	total of £315,000 as work progresses. DS, AD and Keith Rimmer will meet to ensure a process is determined.	<b>tie/SDS</b>		Open
iv.	Section 3A – Telford Road Steps, DS will determine where the action to complete lies and will ensure that it is undertaken;	<b>tie</b>		Open
v.	Section 3B – West Pilton Tramstop: <b>tie</b> (DS) indicates that a Change Notice was passed to Matthew Crosse on 12/12/2007. DS will pursue this.	<b>tie</b>		Open
vi.	Section 3A – Coltbridge Viaduct: SDS (GC) states that <b>tie</b> requested a drawing to be taken to a legal opinion meeting in November 2007. This drawing was delivered on November 27 <sup>th</sup> , 2007. DS will determine the status of this drawing within <b>tie</b> .	<b>tie</b>		Open
vii.	Gogar Roundabout and associated feeder road – issue still to be sorted. As to what standard this road should be built to... e.g. surely not a 60mph, dual carriageway?!	<b>tie</b>		Open
viii.	Gogar depot maintenance arrangements - confirmed by <b>tie</b> that it is correct that SDS design to what they know now. If, subsequently, Infracore alter the details of maintenance equipment provision such that details of the depot design have to change then that will be treated separately.	SDS		Info
<b>tie/SDS</b> note that Prior Approvals are not considered to be on the Critical Path, so focus needs to remain on the Technical Approvals.				

**Date of Next Meeting:** Friday, 11<sup>th</sup> January, 2008

<b>Plans or Drawings provided at Meeting</b>	
<b>1</b>	No Plans or Drawings were presented.



## **APPENDIX 2**

**Critical Issues Meeting Minutes  
18 January 2008**



# Edinburgh Trams Project

## IDC and Approvals Issues Impacts and Actions

Section	Sub-Section	Issue	Action	Cf 28Jun07 CI mtg
1	1A	SDS issued RFI on 11/12/06 to confirm tie acceptance of the proposed layout of the interim terminus to be provided at Newhaven Stop. Issue pending outcome of Forths Ports study.	tie to review as-built and to confirm that this will not adversely affect Section 4. Workshop with Forth Ports due to take place on 30th January to reach agreement.	1A /3
		Forth Ports change request may require modification to ADM milling agreement	tie to confirm the position of ADM Milling.	
		CEC/Forth Ports Agreement on concept through Ocean Terminal.	tie to close out Forth Ports Agreement (following workshop on 30th January). SDS to confirm to tie the date of the IDC, and when this issue will affect the IDC programme.	1A /24
		SDS require approval of change order to complete design.	DS to review change estimate .	
		Forth Ports change request requires modifications to Forth Ports sgreement and Ocean Terminal agreement. SDS submitted change estimates to support instruction provided.change order required.	DS to clear change order.	
		SDS have seen a draft version of the Stanley casinos agreement and it will require additional work. SDS developing change estimates to support instruction provided. Change Order required.	GM and SN to discuss and validate SDS's estimated man-hours in the change estimate. Following above action; DS to clear change order.	1A /21
		CEC noted that public realm project will not proceed with/in advance of tram. SDS will now need to complete section work to tie into existing. Change estimate submitted. Change order required.	DS to clear change order.	1C /10
		Building fixing location preferred by tram design working group/CEC. Placing in conflict with Norman Downie and Kerr side agreement. Letter sent to tie on 23/02/07. tie acceptance required.	tie to issue confirmation to SDS that they should proceed to IDC on the assumption that a building fixing will be installed.	
		SDS have performed significant advance modelling to inform design moving forward. All results have shown that a solution to the traffic problems in this area cannot be provided with the remit of the tram project	Wider area issue - DS to clear change request which will trigger modelling.	SW /4
		1B		
1C	Charette design requirements conflict with police box coffee bars side agreement. Letters sent to tie on 23/02/2007. tie acceptance required.	tie to confirm which Agreement takes precedence and to instruct SDS.	1 /1	
	Letters issued by tie on 07/01/08 to open Fredrick Street, change order required. Prior approval and technical approval now delayed.	SDS to advise if a previous instruction was received from tie regarding this junction, if yes; tie will take appropriate action.		
1D				



# Edinburgh Trams Project

## IDC and Approvals Issues Impacts and Actions

Section	Sub-Section	Issue	Action	Cf 28Jun07 CI mtg
	Section Wide	CEC confirmation of bin consolidation/operations.	SDS to provide proposal for locations; CEC will respond per application.	
		SDS have been unsuccessful in obtaining the required drainage information from third parties on section 1. SDS issued RFI on 01/11/06 to provide required information. Response to RFI from tie on 11/12/06. However, requested information was not provided.	Programme of manhole surveys are to be completed and fed back to SDS.	
		Design and Planning procedures for radio masts at Jane Street and Edinburgh Castle; letters submitted to tie on 05/06/07	Approval required through meeting with DS, AD and SN, further approval with BBS..	
2	2A			
3	3A	Agreement from Historic Scotland being sought via CEC transport for proposed change to bridge.	Not an issue at this time.	
		Decision awaited from tie to engage land owner adjacent to Coltbridge Viaduct. Prior to submission of prior approval, drawing sent to tie on 22/11/07.	GM and TC to resolve and communicate design to SDS; landowner to be engaged.	3A /14
		11 Upper Coltbridge Terrace proximity of new house extension to LOD. "As built" details of piled foundation requested in letter from SDS to tie on 09/07/07.	GM to review as-built details of construction at, or over LOD and inform SDS.	
		Land available too narrow to accommodate. tie undertaking to residents.	CN to provide to DS the note of the meeting with the stakeholders at which time this was agreed. tie to issue letter to SDS instructing them to proceed with design.	
		Change order awaited from tie to undertake redesign of Telford Road stepped access.	DS to clear change order.	
		Drainage outfalling outwith LOD RFI submitted on 13/08/07 (ULE90130-03-RFI-00048).	tie to respond to RFI.	
		Drainage - Preferred solution requires agreement with Scottish Water for 5No outfall locations /CEC consents being pursued.	SDS to summarise position and progress; advise tie	
		Assessment of effect of phasing of 1A/1B required. tie advise on phasing requirement and issue instruction.	tie to advise SDS on approach.	SW /3
		Drainage - RFI submitted regarding provision within the train acts for the drainage system to connect to outfalls outwith the LOD. Significant implications for sections 2,3,5,& 7 (ULE90130-SW-RFI-00109) response received on 10/08/07 and being assessed.	SDS to advise tie on further action.	



# Edinburgh Trams Project

## IDC and Approvals Issues Impacts and Actions

Section	Sub-Section	Issue	Action	Cf 28Jun07 CI mtg
	3B	tie yet to instruct if acces from Pilton way is to be retained and redesign undertaken, currently instructed to remove access.	DS to advise to CEC that change is rejected. CEC to specify what is required.	
		OLE poles located within the LOD but outwith the side agreement with National Grid Property Holdings Ltd and Port Greenwich Ltd.	tie to advise on Agreement conflict.	
	3C	Middle pier road reconstruction outwith Lod required. tie to confirm land ownership through D&W. RFI sent 17/04/07 (ULE90130-03-RFI-00041)	tie to respond to RFI.	
	Section - Wide	Drainage survey information required to confirm drainage outfall requirements, including pumping station requirements.	Programme of manhole surveys are to be completed and fed back to SDS.	
4	4A			
	4B			
	Section- Wide	Instruction/Change control pending for dock wall survey. SDS issued estimate 23/11/06	SDS to provide change reference details to DS for information.	
5	5A	Decision on location of fuel off-loading point for pollution prevention scheme is required from Network Rail via tie.	tie to advise SDS of decision.	
		Options letter sent to tie ULE90130-05-LET-00195 dated 15/01/08 for Murrayfield tram stop retaining wall required tie and BBS input and decision on programme vx cost.	tie to review letter and advise SDS.	5B /1
	5A	Side agreement with STU still not finalised/signed. Prior approval and design on hold as per tie letter dated 12/12/07 ref. DES-ADM-910.	tie to provide advice to SDS on the SRU Agreement in regards to accomodation; further links with structures and other issues including VE.	5A /1
		Upgrade of NWK access at Westfield Road - SDS are not yet instructed to carry out this work. tie to confirm requirements.	tie to issue confrimation to SDS that this is not required.	
	5B	Design and approvals on hold due to Balgreen Road access bridge height - see letter ULE90130-05-LET-00185 dated 18/12/07.	tie to issue confirmation to SDS regarding height.	5B /1
		Confirmation from CEC (via tie) required as to whether earthworks can go outwith LOD at CEC's siggestion.	CEC to confrim decision to tie, which tie will confrim to SDS.	5B /1
	5C	Deed of servitude being persued by tie with with Gyle Estates.	SDS to see Agreement with Gyle Estates.	
tie to confirm status of S75 agreement with RBS. SDS are not instructed to design anything other than an exemplar tram stop.		DS to issue instruction to SDS to design RBS stop dealing with outstand issues and comments. DS and GM to finalise Agreement with RBS.	7A /2	
		As-built survey of MUDFA excavation works. Complete rats pipework survey.	tie to provide depot as-built survey to TSS for review.	



# Edinburgh Trams Project

## IDC and Approvals Issues Impacts and Actions

Section	Sub-Section	Issue	Action	Cf 28Jun07 CI mtg
6	6A	Awaiting details of equipment from <b>tie</b> (tram wash, sanding plant, wheel lathe).	Discussion to take place in regards to BBS and CAF; <b>tie</b> to then advise SDS.	
7	7A	Construction methodology and design for tram over contaminated land to be conducted with SEPA, <b>tie</b> and BBS.	SDS to get approval from SEPA.	
		Requirements for future proofing for NIL to be confirmed as per letter ULE90130-07-LET-00310 dated 11/12/07.	<b>tie</b> to respond to letter.	
		Letter to remove red status required at Newbridge branch.	<b>tie</b> to issue confirmation that red status has been removed.	7A /3
		levels of Park and Ride interface with tram to be reviewed and confirmed by <b>tie</b> as per email from Kate Shudall to LM and DS dated 09/01/08.	Levels to be confirmed.	7A /4
		Substation and stop access requirement to be confirmed by <b>tie</b> as per letter ULE90130-07-LET-00311 dated 11/12/07.	<b>tie</b> to respond to letter.	
		Change notice required from <b>tie</b> with TEL requirements for kiosks and ticketing facilities at the tram stop. Design and approvals are on hold, see letter ULE90130-07-LET-00309 dated 11/12/07.	DS to generate change notice.	
		Burnside Road progress.	LM to update on status and clarify removal of diesel from the depot (VE).	7A /11
System-Wide		AMIS manhole survey information is required in order to complete drainage design.	Programme of manhole surveys are to be completed and fed back to SDS.	
		BT-C4 design information outstanding for sub-section 7A.	As-built information required for SDS.	
		Tram parameters: Weight - Review instruction from <b>tie</b> COS082	Meeting required with Andy Steel, Andy Dixon, Bruce Ennion, Alan Dolan, Tony Goodyear and David Crawley to confirm all parameters as defined in advance by SDS.	
		Length - SDS report submitted ULE90130-SW-REP-00433 DKE - SDS RFI 16/11/07.		
		Ticket vending machines machines (location spec) as per TEL email dated 14/01/08.	<b>tie</b> to define with CEC and TEL and provide instruction to SDS for clarity.	
		Tram stop design: Public information display systems (PIDS)	SDS to confirm number of useable characters available for 1200mm and 1500mm PIDS.	
		Finishes	<b>tie</b> to specify to SDS what finishes are available for use.	
		Pole Configurations	SDS to rationalise all pole use to the degree possible.	
		Tactile Paving	<b>tie</b> to advise SDS of suitable colour of tactile paving.	
		Branding - Project - as per TEL email dated 9th Jan 2008	Not an issue at this time.	
	Additional work requested by CEC for public realm hard landscape. Change order required.	SDS to issue a letter to <b>tie</b> based on specification of finishes available for use.		



# Edinburgh Trams Project

## IDC and Approvals Issues Impacts and Actions

Section	Sub-Section	Issue	Action	Cf 28Jun07 CI mtg
		Full E &M Technical proposal of INFRACO.	Process has been agreed - not an issue at this time.	
		Final version of employers requirements and instruction .	There is a separate process running at this time - no longer an issue at this time.	
		Closure of all outstanding RFI's.	SDS to confirm all outstanding RFI's to tie.	
		Final formalised 3rd party Agreements returned.	tie to provide SDS with complete list of all 3rd party agreements and letters of comfort.	

## **APPENDIX 3**

**Critical Issues Register Extract  
28 June 2008**

Index	Sub Section	Issue	Dates		Comments
			Client notified	Cleared	
<b>New</b>					
<b>1/1</b>	<b>1</b>	Conflicts with third parties with whom agreements have been made - eg Police box coffee bar at Picardy Place. SDS have written to tie	12/02/2007	24/05/2007	CEC checking planning issues prior to coming back to TIE
<b>1A /3</b>	<b>1A</b>	SDS issued RFI on 11/12/06 to confirm tie acceptance of the proposed layout of the interim terminus to be provided at Newhaven stop.	12/11/2006	19/04/2007	
<b>1A /21</b>	<b>1A</b>	SDS have seen a copy of the draft agreement with Stanley Casinos - this will require extra work. SDS yet to receive copy. Change order will be required.	12/02/2007	17/05/2007	Issue to be discussed with CEC /FP
<b>1A /24</b>	<b>1A</b>	Ocean Terminal. Redesign of infrastructure of Forth Ports is holding up finalisation of Utility design. Needs CEC & FP to agree track and roads alignment is finalised, a change instruction will be required to redesign utilities to suit.	12/02/2007		Forth Ports currently working on Architects' Drawings. SDS to review track separation TEL confirmed approval from a bus operations viewpoint TIE instruction to proceed to be issued identifying Revision to be used
<b>1C /10</b>	<b>1C</b>	RECENT COORDINATION MEETINGS HAVE INDICATED THAT CEC / TIE WISH TO COMBINE CONSTRUCTION CONTRACTS OF THE TRAM AND CAPITAL STREETS PROJECT. CHANGE INSTRUCTION REQUIRED.		26/04/2007	Design delay will occur if directed to change
<b>3A /14</b>	<b>3A</b>	Coltbridge Viaduct - Oversail of walkway outside LOD	RFI issued	21/06/2007	SDS to proceed with design as is. LM to issue instruction to proceed.
<b>5A /1</b>	<b>5A</b>	CEC SIDE AGREEMENT WITH SRU STILL NOT FINALISED/SIGNED. SDS REQUIRE AGREEMENT TO PROCEED AND CHANGE ORDER FOR ADDITIONAL DESIGN WORKS.SDS WORKING AT RISK UNTIL SIDE AGREEMENT RESOLVED. REVISED ACCOMMODATION WORKS AND OPTIONS REPORT ISSUED OT TIE AND SRU ON 29/01/07 AS REQUESTED - NO COMMENTS RECEIVED FROM TIE TO DATE.	30-Nov		TIE (TC) to issue instruction for SDS to proceed on the basis of the Embankment Design.
<b>5B /1</b>	<b>5B</b>	AWAITING NWR/TIE/SDS AGREEMENT FOR ALIGNMENT/BRIDGE DESIGN - AFFECTS MURRAYFIELD TRAINING PITCHES, BAIRD DRIVE RETAINING WALL, BALGREEN ROAD RETAINING WALL, STOP & SUBSTATION.ALL ON HOLD. LETTER SENT TO TIE 09/11/06. REPORT SENT TO TIE 21/12/06 FOR NWR & SCOTTISH EXECUTIVE. LETTER ISSUED TO TIE REITERATING CLARIFICATION ON ALIGNMENT - PRESENTED TO HMRI ON 26/02/07 Tie to send letter of instruction 10th May.	09/11/2006		Letter to be provided by Tony Glazebrook to NWR informing NWR of the solution to be adopted. Option 3. Date required as this is affecting public consultation and approvals



Index	Sub Section	Issue	Dates		Comments
			Client notified	Cleared	
<b>New</b>					
<b>7A /2</b>	<b>7A</b>	RBS - SDS HAVE BEEN VERBALLY ADVISED BY TIE OF THE REQUIREMENT TO PROVIDE LANDMARK/ BRANDED TRAMSTOP. NO AGREEMENT IS IN PLACE TO CLARIFY WHAT APPROVALS OF THE TRAMSTOP ARE REQUIRED. NEW REQUIREMENT FOR SDS & TIE TO ISSUE SDS INSTRUCTION/CHANGE NOTICE. RBS DESIGN INPUT WILL AFFECT STOP DESIGN PROGRAMME - RESPONSE REQUIRED TO PROPOSED REVISED PROGRAMME, LETTER ULE90130-SW-LET-00437 Ian Spence has met with RBS, now will arrange a meeting with the project team and RBS to resolve.	Dec-06	28/06/2007	LM to issue instruction to SDS to proceed to deliver a standard Tramstop design - a Tramstop with standard finishes. Letter to be provided by CEC that it is acceptable to proceed on this basis with a two-phase approval process
<b>7A /3</b>	<b>7A</b>	Change notice required for Delta at Newbridge Branch as per RFI response. Tie to confirm how this affects design of Park and Ride. Change notice to be submitted by SDS	Jan-07		LM to issue change notice and letter to clear the red status
<b>7A /4</b>	<b>7A</b>	Change Estimate for P&R design rejected by tie- TIE NEED TO CONFIRM HOW THE PARK & RIDE IS TO BE INDICATED ON SDS DRAWINGS. RFI SUBMITTED TO TIE ON 28/11/06 TSS DESIGN TO BE ISSUED TO SDS.	28/11/2006	31/05/2007	RFI response received but no TSS CAD files not received
<b>7A /11</b>	<b>7A</b>	Burnside Road - relocation. BAA interface	25/09/2006	28/06/2007	LM to instruct SDS to proceed on basis of current design. TIE to confirm any further work required for Burnside Road
<b>SW /3</b>	<b>SW</b>	SDS SCC & Power design predicated on 1A /1B constructed together. Instruction required from TIE to redesign	10/05/2007	17/05/2007	
<b>SW /4</b>	<b>SW</b>	Resolution and sign-off by TIE /CEC of wider area model to ensure that road junction designs for tram do not need to be revisited	17/05/2007		

## **APPENDIX 4**

### **Critical Issues Correspondence**

- *tie* Letter dated 26 June 2007
- Email Clarification dated 29 June 2007
- PB Letter dated 11 July 2007



Steve Reynolds  
 Parsons Brinckerhoff  
 Edinburgh Tram Network Project  
 Citypoint  
 65 Haymarket Terrace  
 Edinburgh  
 EH12 5HD

EDINBURGH TRAM PROJECT DESIGN OFFICE	
REFERENCE NO	
DISCIPLINE <i>RUC</i>	
ACTION <i>Sett</i>	COPY <i>SR AD AD</i>

LM/TG

Our Ref: DEV-COR-512

Date: 26th June 2007

*SDM's  
J. Blae*



Dear Steve

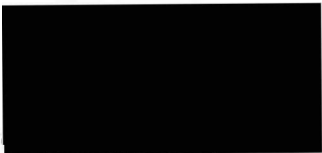
**Critical Issues Meeting 21<sup>st</sup> June 2007-06-21  
 Issues and Instructions Arising**

Further to the critical issues meeting (SDS/CEC/TEL/tie) held on 21st June, please find the attached schedule of issues and relative instructions for your action. Where appropriate please find attached relevant change notices and drawings. Please arrange for SDS to further progress the scheme design on this basis noting the collaborative approach taken by tie, TEL and CEC.

Please provide revised programme dates for those items previously effected. Please note that these drawings are issued as background information and as such tie does not take any responsibility for the accuracy or completeness of the information displayed.

Should SDS require any further assistance in progressing these issues please do not hesitate to contact Lindsay Murphy or Gavin Murray in the first instance?

Yours sincerely



*pp*

Tony Glazebrook  
 Engineering Director – Trams

Attachment

Tony Glazebrook - Director of Engineering, Approvals and Assurance

tie limited - direct dial [redacted] e-mail [tony.glazebrook@tie.ltd.uk](mailto:tony.glazebrook@tie.ltd.uk)

Verity House 19 Haymarket Yards Edinburgh EH12 5BH / Citypoint 65 Haymarket Terrace Edinburgh EH12 5HD  
 tel +44(0)131 622 8300 fax +44(0)131 622 8301 web [www.tie.ltd.uk](http://www.tie.ltd.uk)

Registered in Scotland No: 230949 at City Chambers, High Street, Edinburgh EH1 1YJ

delivering transport projects

<b>Section/Issue No Location Impact</b>	<b>Issue/Instruction</b>
<p><b>1A/22a</b></p> <p>Forth Ports Outside Ocean Terminal</p>	<p><b>Issue</b> Forth Ports have asked for a redesigned track alignment at Ocean Terminal which better meets their needs. This will be subject to agreement between FP and CEC.</p> <p><b>Instruction</b> Please find attached copy drawing numbers otl rtkl overlay 2 Rev A</p> <p>Please confirm that these drawings provide SDS with the information required to proceed with the design as agreed.</p> <p>Please confirm that stabling for a failed Tram can be facilitated within the agreed constraints.</p>
<p><b>1A/22a</b></p> <p>Forth Ports Lindsay Road</p>	<p><b>Issue</b> Awaiting FP design for Lindsay Rd junction to confirm that it works.</p> <p><b>Instruction</b> Please find attached copy drawing numbers CSK036 Rev B and CSK037 Rev B which are available on the 4projects Forth Ports extranet to which you have access. Pdf copies of the drawings are attached for ease of reference.</p> <p>Please confirm that these drawings provide SDS with the information required to proceed with the design as agreed on 22<sup>nd</sup> June 2007.</p> <p>Please confirm that the proposal can accommodate a tram alignment and design within the presently agreed standards and Constraints.</p> <p>Where options are available or the standards and constraints cannot be met please provide a report detailing the options with, for each, the effect on the standards or constraints compromised, the relative costs, the benefits and the disbenefits to the recognised stakeholders.</p>
<p><b>1A/23</b></p> <p>Forth Ports Bypass Road</p>	<p><b>Issue</b> A decision is required on who will design the bypass road at Ocean Terminal. It was confirmed by Trudi Craggs on 7th June that this road will not require planning permission.</p> <p><b>Instruction</b> Please find attached copy drawing otl rtkl overlay 2 Rev A which shows the proposed location of the bypass road. Please confirm that this is sufficient to allow SDS to proceed with the design of the bypass road.</p> <p><b>Note</b> In order that tie can fully evaluate the options for contracting the construction of this link road please prepare an outline construction programme. Once received and evaluated tie will clarify the contracting route for construction of the bypass road</p>
<p><b>1B/7</b></p> <p>Foot of the Walk Junction</p>	<p><b>Issue</b> Resolution of design options for Foot of the Walk Junction to optimise traffic movements and minimise congestion. This is to take into account bus movements and pedestrian flows whilst retaining Priority One for tram.</p>

Section/Issue No Location Impact	Issue/Instruction
	<p><b>Instruction</b> Please note that the status for the Foot of the Walk Junction preliminary design as referenced on Drg ULE90130-01-HRL-00010 Rev 3 (08.11.2006) has moved from red to amber subsequent to the agreement of the roads design working group dated 17 May 2007 and as shown on Sketch Ref cr11AHDFTH.</p> <p>Please confirm that the arrangement detailed can be accommodated within the design standards and constraints which form part of the SDS contract. Please note that this does not remove the requirement to complete the appropriate junction modelling.</p> <p><b>Note</b> This decision has been made to allow the impacts to be assessed through modelling by the Joint Revenue Committee Contract. This does not relieve SDS from any obligation to optimise where practicable the design further as a result of observations arising from this modelling exercise. Further, this does not negate SDS' responsibility to carry out local area modelling.</p>
<p><b>1C/4</b> York Place</p>	<p><b>Issue</b> Preliminary design given a 'Red' status due to concerns over the cross-section so detailed design held. Still some safety concerns from CEC regarding footway lower than Road.</p> <p><b>Instruction</b> Please note that the status for the York Place preliminary design as referenced on Drg ULE90130-01-HRL-00016 Rev 3 (08.11.2006) has moved from red to amber subsequent to the agreement of the roads design working group dated 17 May 2007 (and ongoing 28 June 2007) and shown on Sketch Ref HDFTH cr12A 1C York Street Xsec V1.</p> <p>Please confirm that the arrangement detailed can be accommodated within the design standards and constraints which form part of the SDS contract.</p>

<b>Section/Issue No Location Impact</b>	<b>Issue/Instruction</b>
<p><b>1C/6</b></p> <p>Junction Mound / Princes St</p>	<p><b>Issue</b> Preliminary design given a 'Red' status so detailed design held due to requirement to optimise junction capacity for bus movements.</p> <p><b>Instruction</b> Please note that the status for the Mound/Princes Street Junction preliminary design as referenced on Drg ULE90130-01-HRL-00019 Rev 3 and ULE90130-01-HRL-00057 (08.11.2006) has moved from red to amber subsequent to the agreement of the roads design working group dated 8 and 22 February 2007 and as shown on Sketch Refs: Bus Stops SSDS-The Mound2 and PRINCES ST RED ISSUE T1 AMSTOP.</p> <p>Please confirm that the arrangement detailed can be accommodated within the design standards and constraints, which form part of the SDS contract. Please note that this does not remove the requirement to complete the appropriate junction modelling.</p> <p><b>Note</b> This decision has been made to allow the impacts to be assessed through modelling by the Joint Revenue Committee Contract. This does not relieve SDS from any obligation to optimise where practicable the design further as a result of observations arising from this modelling exercise. Further, this does not negate SDS' responsibility to carry out local area modelling.</p>
<p><b>1C/12</b></p> <p>Waverley Bridge</p>	<p><b>Issue</b> Resolution of design options for Waverley Bridge Junction to optimise traffic movements and minimise congestion. This is to take into account bus movements and pedestrian flows whilst retaining Priority One for tram..</p> <p><b>Instruction</b> Please note that the status for the Waverley Bridge Junction preliminary design as referenced on Drg ULE90130-01-HRL-00018 Rev 3 (08.11.2006) has moved from red to amber on the assumption that the design is to be taken forward at risk with the need to resolve the issue of buses turning right from Princes St into Waverly Bridge.</p> <p>Please confirm that the arrangement detailed can be accommodated within the design standards and constraints, which form part of the SDS contract. Please note that this does not remove the requirement to complete the appropriate junction modelling.</p> <p><b>Note</b> This decision has been made to allow the impacts to be assessed through modelling by the Joint Revenue Committee Contract. This does not relieve SDS from any obligation to optimise where practicable the design further as a result of observations arising from this modelling exercise. Further, this does not negate SDS' responsibility to carry out local area modelling.</p>
<p><b>1C/13 and 1C/15</b></p> <p>Picardy Place</p>	<p><b>Issue</b> Resolution of design options for Picardy Place and Picardy Place /London Road Junctions to optimise traffic movement and minimise congestion. This is to take into account bus movements and pedestrian flows whilst retaining Priority One for tram</p> <p>CEC solution now proposed and being worked up by SDS. Modelling being done to determine whether the issue is resolved by this option</p> <p><b>Instruction</b></p>

Section/Issue No Location Impact	Issue/Instruction
	<p>Please note that the status for the Picardy Place and Picardy Place /London Road Junctions preliminary design as referenced on Drg ULE90130-01-HRL-00015 Rev 3 (08.11.2006) has moved from red to amber subsequent to all parties agreeing to the CEC proposal which is to be discussed at the roads design working group dated to meet on 28 June 2007.</p> <p>Please confirm that the arrangement detailed can be accommodated within the design standards and constraints which form part of the SDS contract. Please note that this does not remove the requirement to complete the appropriate junction modelling.</p> <p><b>Note</b> This decision has been made to allow the impacts to be assessed through modelling by the Joint Revenue Committee Contract. This does not relieve SDS from any obligation to optimise where practicable the design further as a result of observations arising from this modelling exercise. Further, this does not negate SDS' responsibility to carry out local area modelling.</p>
<p><b>1C/14</b> The Mound Junction</p>	<p><b>Issue</b> Resolution of design options for The Mound Junction to optimise traffic movement and minimise congestion. This is to take into account bus movements and pedestrian flows whilst retaining Priority One for tram.</p> <p><b>Instruction</b> As intimated above for 1C/6</p>
<p><b>1D/7</b> Haymarket</p>	<p><b>Issue</b> Haymarket roads design. Conflicting aspirations TEL/CEC.</p> <p><b>Instruction</b> Please note that the status for the Haymarket Junction preliminary design as referenced on Drg ULE90130-01-HRL-00024 Rev 3 (08.11.2006) has moved from red to amber subsequent to the agreement of the roads design working group dated 17 May and 14 June 2007 and as shown on Sketch Ref HDFTH cr09A 1D Haymarket Dev Des V3 A1</p> <p>Please confirm that the arrangement detailed can be accommodated within the design standards and constraints which form part of the SDS contract. Please note that this does not remove the requirement to complete the appropriate junction modelling.</p> <p><b>Note</b> This decision has been made to allow the impacts to be assessed through modelling by the Joint Revenue Committee Contract. This does not relieve SDS from any obligation to optimise where practicable the design further as a result of observations arising from this modelling exercise. Further, this does not negate SDS' responsibility to carry out local area modelling.</p>
<p><b>1D/8</b> Haymarket</p>	<p><b>Issue</b> Resolution of design options for Haymarket Junction to optimise traffic movement and minimise congestion. This is to take into account bus movements and pedestrian flows whilst retaining Priority One for tram</p> <p><b>Instruction</b> As intimated above for 1D/7</p>
<p><b>3A/02</b></p>	<p><b>Issue</b></p>

Section/Issue No Location Impact	Issue/Instruction
Coltbridge Viaduct	<p>Parapet Required design and planning requirements to be met.</p> <p><b>Instruction</b> Please note that the status for the Coltbridge Viaduct preliminary design as referenced on Drg ULE90130-03-BRG 061 Rev A (10.05.06) has moved from red to amber shown on Sketch Ref/Drg ULE90130-03-BRG-SET-OUT and as discussed at the CEC Structures Progress Meeting with SDS on 6 June 2007.</p> <p>SDS to proceed with design to facilitate a full planning application See also 3A/14 below</p>
<p><b>3A/10</b></p> <p>System wide</p>	<p><b>Issue</b> Tram noised levels remain a concern as noise mitigation through screening is unlikely to prove acceptable. Confirmation is required from tram bidders of best achievable noise levels.</p> <p><b>Instruction</b> Noise levels as provided to SDS at bidder meetings it is noted that quantitative measurements have been received from only one tram bidder. SDS should proceed with design on the basis of this information. The information provided by the bidders should be considered as background information and tie does not guarantee its accuracy or completeness.</p>
<p><b>3A/14</b></p> <p>Coltbridge Viaduct</p>	<p><b>Issue</b> Walkway is outside LOD. CEC own the land plot. SDS to complete design as specified to allow tie to pursue as part of a full planning application required.</p> <p><b>Note</b> SDS proceeding with the design on the basis of an overhang and may require to consider options in support of Full planning application, as detailed on the tie response to SDS RFI (ULE90130-03-RFI-00042) dated 14 June 2007.</p>
<p><b>5A/1</b></p> <p>SRU training pitches</p>	<p><b>Issue</b> Impact of the tram route and (potentially) the flood mitigation plan on the SRU pitches not agreed by SRU. CEC and SRU to reach a conclusion</p> <p><b>Instruction</b> This does not impact on the design of the Tram alignment. Tram design to proceed.</p> <p><b>Note</b> New issue to be raised regarding the design and implementation of the training pitches.</p>
<p>7A/2</p> <p>RBS 'Landmark' Tramstop</p>	<p><b>Issue</b> Ian Spence has met with RBS, now will arrange a meeting with the project team and RBS to resolve all the associated issues of design, alignment, standards impact etc. Progress statement required from CEC at this meeting next week. Duncan Fraser responsibility to clear as per DPD Meeting 28 June.</p> <p><b>Instruction</b> To allow the alignment to be finalised SDS are to design on the Basis of a standard Tramstop. Any change to this will be instructed once agreed.</p>
<p>7A/3</p> <p>Delta at Newbridge branch</p>	<p><b>Issue</b> Change notice required for Delta at Newbridge Branch as per RFI response. Tie to confirm how this affects design of Park and Ride. Change notice to be submitted by SDS</p>

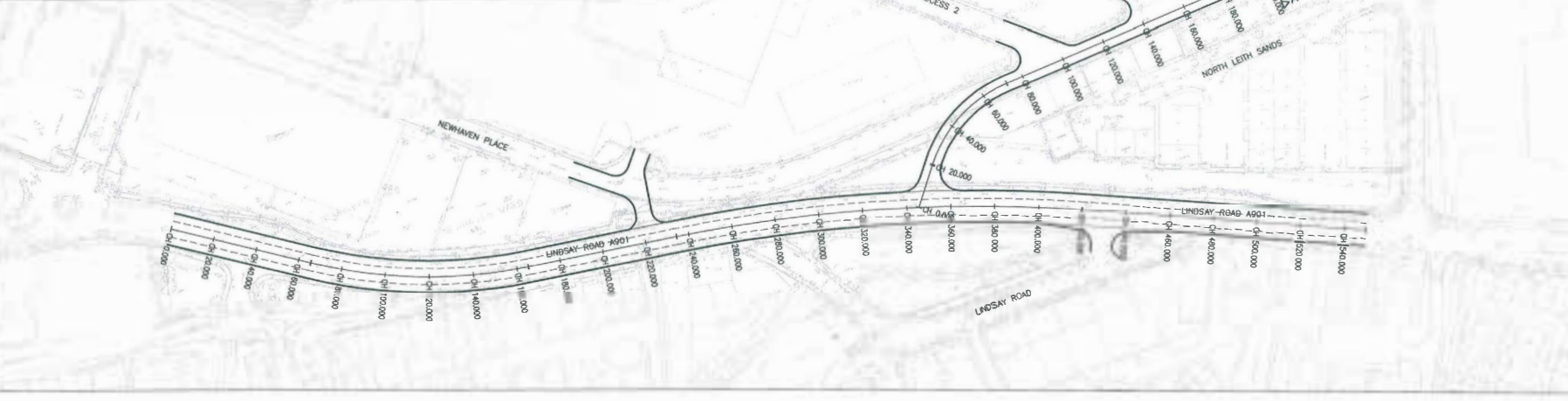
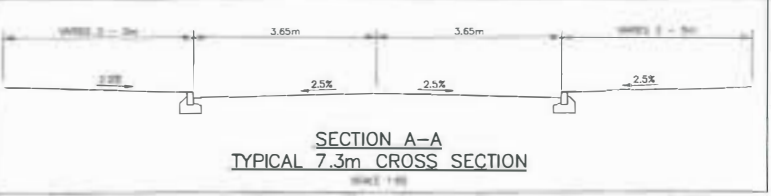


Section/Issue No Location Impact	Issue/Instruction																					
	<p>Delta junction at Ingliston is a new requirement. TIE to review Transdev issues and respond to the SDS RFI.</p> <p><b>Instruction</b> Future proofing of track alignment should allow East - West provision for Newbridge Spur as per original change control. No switching gear to be implemented as part of this project. SDS to confirm that this future proofing is complete. SDS to explain how this was done as SDS outline design (now superseded) for Park and Ride site showed the Sub-station on this spur.</p> <p><b>Note</b> It is noted that the impact of this will be no canting on the curve to the Airport and therefore a potential impact on run time and comfort.</p>																					
<p>7A/9 Eastfield Ave</p>	<p><b>Issue</b> Eastfield Ave - change due to EARL project. Change Order required in order to progress retaining wall design.</p> <p><b>Instruction</b> SDS to note alignment Preliminary Design prepared by The EARL project and proceed with the design at this location on the basis of drawings listed below issued 20<sup>th</sup> June 2007. This will reactivate Change notice CNS018. SDS should advise of any design or delivery implications arising from this proposal.</p> <table border="1" data-bbox="509 947 1408 1194"> <thead> <tr> <th>File Name</th> <th>File Type</th> <th>Format Type</th> <th>Description</th> <th>Revision</th> <th>Received from</th> <th>Originator</th> </tr> </thead> <tbody> <tr> <td>EARL-SW-HW-CTL-DRG-0001</td> <td>Pdf</td> <td>Drg</td> <td>EARL-SW-HW-CTL-DRG-0001 – Eastfield Avenue Realignment Outline Design</td> <td>0</td> <td>EARL</td> <td>TSDS</td> </tr> <tr> <td>20070619144337453 (2)</td> <td>Pdf</td> <td>Scan Drg</td> <td>S100730/ST/SK/250 EARL Eastfield Avenue Bridge Preliminary General Arrangement (for discussion only)</td> <td>0</td> <td>EARL</td> <td>TSDS</td> </tr> </tbody> </table> <p>A meeting has been arranged on 25<sup>th</sup> June to allow TSDS to progress with detailed design. SDS continue to support tie Tram in liason with the EARL project to ensure that the objectives of Tram are not compromised.</p>	File Name	File Type	Format Type	Description	Revision	Received from	Originator	EARL-SW-HW-CTL-DRG-0001	Pdf	Drg	EARL-SW-HW-CTL-DRG-0001 – Eastfield Avenue Realignment Outline Design	0	EARL	TSDS	20070619144337453 (2)	Pdf	Scan Drg	S100730/ST/SK/250 EARL Eastfield Avenue Bridge Preliminary General Arrangement (for discussion only)	0	EARL	TSDS
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EARL-SW-HW-CTL-DRG-0001	Pdf	Drg	EARL-SW-HW-CTL-DRG-0001 – Eastfield Avenue Realignment Outline Design	0	EARL	TSDS																
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<p>7A/10 Airport Stop</p>	<p><b>Issue</b> Airport Stop - design phasing for EARL project.</p> <p><b>Instruction</b> SDS to continue design and implementation of Tram halt assuming EARL project will design and implement canopy arrangement to match EARL station as part of EARL project.</p>																					
<p>7A/11 Burnside Road</p>	<p><b>Issue</b> Burnside Road - relocation. BAA interface</p> <p><b>Instruction</b> SDS to note alignment Preliminary Design prepared by BAA project and proceed with the Tram design for Burnside road on the basis of drawings listed below issued 20<sup>th</sup> June 2007.</p> <table border="1" data-bbox="509 1749 1414 1816"> <thead> <tr> <th>File Name</th> <th>File Type</th> <th>Format Type</th> <th>Description</th> <th>Revision</th> <th>Received from</th> <th>Originator</th> </tr> </thead> <tbody> <tr> <td>Editsd22545b00005-</td> <td>Pdf</td> <td>Drg</td> <td>Layout Plan Sowing Burnside</td> <td>0</td> <td>EARL</td> <td>BAA</td> </tr> </tbody> </table>	File Name	File Type	Format Type	Description	Revision	Received from	Originator	Editsd22545b00005-	Pdf	Drg	Layout Plan Sowing Burnside	0	EARL	BAA							
File Name	File Type	Format Type	Description	Revision	Received from	Originator																
Editsd22545b00005-	Pdf	Drg	Layout Plan Sowing Burnside	0	EARL	BAA																

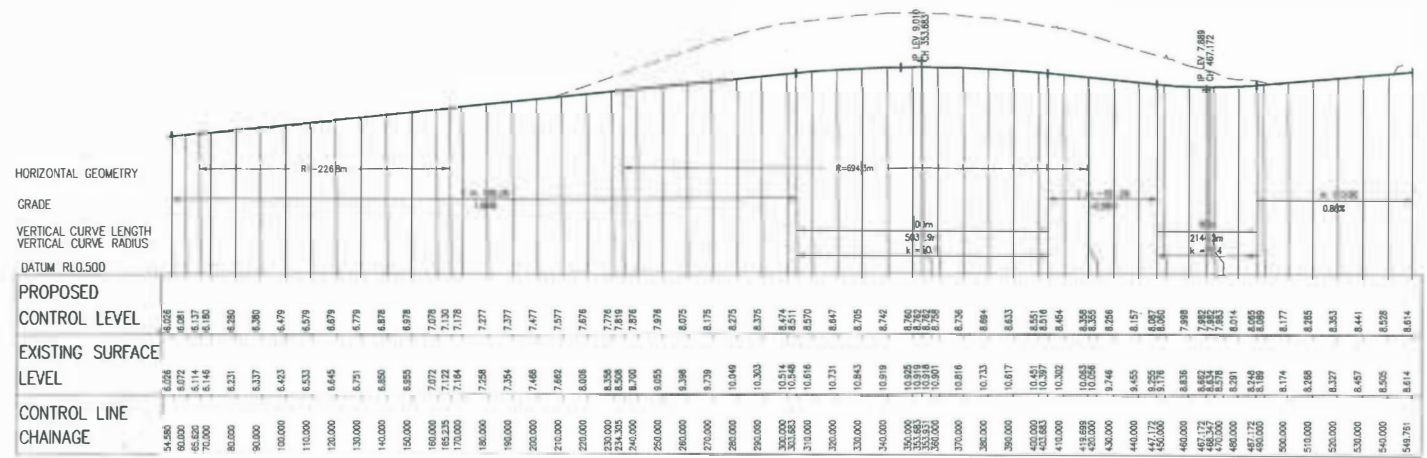
Section/Issue No Location Impact	Issue/Instruction						
	Burnside Road- Proposed Route			Road Alternative Route			
	Editsd22545b00004- Burnside Road- Existing Route	Pdf	Drg	Layout Plan Sowing Burnside Road Existing Route	0	EARL	BAA
	Burnside Road Re- alignment	word	doc	Background to reason for Burnside road Alternative route	N/A	EARL	BAA
<p><b>tie</b> request that with urgency SDS advise of any impact on their design or delivery arising from this proposal.</p>							
<p><b>Note</b> if there are no concerns this will form an attachment to the Lease agreement (the target for completion of this lease is week beginning 25/06/07.</p>							
<p><b>tie</b> will issue further instruction regarding the process to be undertaken and the parties responsible to take this to detailed design if the proposal meets the requirements of all designers and stakeholders.</p>							

**FINAL OPTION**  
WATERFRONT PLAZA STUDIES  
Upper Level Floor Plan





1. REFER TO CSK037 FOR OCEAN DRIVE WEST PLAN AND LONGSECTION.



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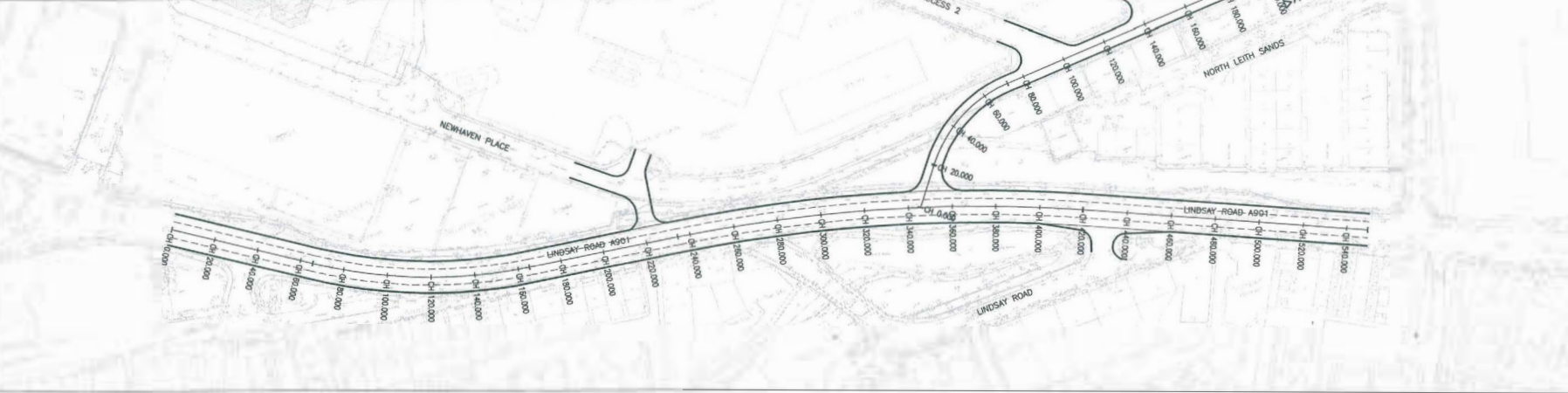
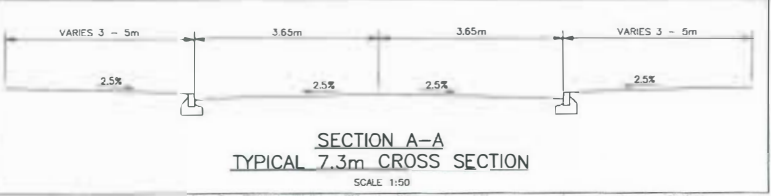
**CONCEPT**



Project: **LEITH DOCKS**  
OCEAN DRIVE WEST / LINDSAY ROAD  
ROAD JUNCTION - PLAN & LONGSECTION  
ALTERNATIVE 5 (SHEET 1 OF 2)

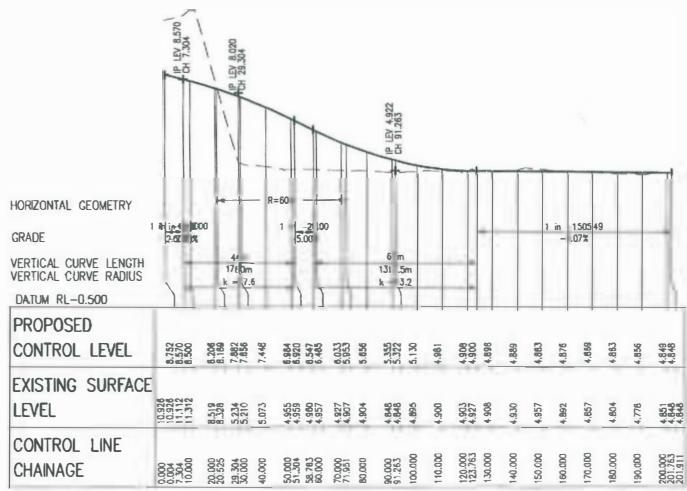
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Drawn by: BCPW  
Checked by: PLM

Job No: **021850**  
Drawing No: **CSK036**



1. REFER TO CSK036 FOR LINDSAY ROAD PLAN AND LONGSECTION.

PLAN  
SCALE 1:1000



LONGITUDINAL SECTION - ODW  
SCALE 1:1000 HORIZONTAL  
SCALE 1:100 VERTICAL

CONCEPT

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**Buro Happold**  
Consulting Engineers

**LEITH DOCKS**  
OCEAN DRIVE WEST / LINDSAY ROAD  
ROAD JUNCTION - PLAN & LONGSECTION  
ALTERNATIVE 6 (SHEET 2 OF 2)

Job No: 021850  
Checked by: PLM  
Designed by: CSK037

**From:** David Crawley [David.Crawley@tie.ltd.uk]  
**Sent:** 29 June 2007 13:34  
**To:** Reynolds, Steve  
**Cc:** Matthew Crosse; Dolan, Alan; Tony Glazebrook; Ayres, Greg; Geoff Gilbert  
**Subject:** RE: Critical Issues Letter DEV-COR-512  
Steve,

... and for the avoidance of any possible doubt, I agree with and accept your interpretation.

David

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**From:** Reynolds, Steve [mailto:ReynoldsS@pbworld.com]  
**Sent:** 29 June 2007 13:16  
**To:** David Crawley  
**Cc:** Matthew Crosse; Dolan, Alan; Tony Glazebrook; Ayres, Greg; Geoff Gilbert  
**Subject:** RE: Critical Issues Letter DEV-COR-512

David

Thank-you for this clarification. Let me first of all confirm that I am remobilising those areas of design activity which have been held and having received the formal instruction from **tie** yesterday I have a special meeting planned Tuesday morning to review current status and pick up on any special instructions which may be required to enforce action and indeed, where feasible, to accelerate progress.

The concern in my mind was, as we discussed yesterday, that the Instruction as received did not correlate closely with the intent that I had perceived from the meeting on the 21st. Specifically my stance, certainly after the forceful presentation by Willie at the last DPD, had been along the lines of it's now nearly twelve months since the PD was delivered - tomorrow is in fact the 12 month anniversary date - and with the extended consultation on design options through that period we have to recognise that what has been submitted is likely so close to optimum that there is nowhere else to go. Without doubt the major risk right now is not that the design may be 99% optimum rather than 100%; the fact is that even if it were possible to reach the theoretical 100% it would take so long to achieve that the programme would be extended to the point where the scheme would be cancelled. Interpreting the "Note" as part of the Instruction and taking at face value the direction to ".... optimise where practicable the design further as a result of observations arising from the modelling exercise...." would put us back to square one with unacceptable programme extension and costs either due to rework or due to delay awaiting CEC modelling results.

I shall respond more formally as part of the wrap-up reply to your letter dated 26 June but we are now moving on the basis of our collective agreement that we have reached what must be close to the best design solution. It's also with flagging here my understanding that should it be decided subsequently to revisit the design (other than due to reasons of non-compliance with standards), then this is a risk that **tie** is taking - with the observation once again that any subsequent rework for what could be termed preferential engineering can only add to the programme delay.

Thank you once again for your intervention to unlock this particular problem so quickly.

Steve

Stephen C Reynolds  
Director

PB  
Manchester Technology Centre  
Oxford Road, Manchester, M1 7ED

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Mobile + [REDACTED]  
Fax +44 (0)161 200 5001

---

**From:** David Crawley [mailto:David.Crawley@tie.ltd.uk]  
**Sent:** 29 June 2007 09:31  
**To:** Reynolds, Steve  
**Cc:** Matthew Crosse; Dolan, Alan; Tony Glazebrook  
**Subject:** Critical Issues Letter DEV-COR-512

Steve,

You and I discussed this today. (Matthew, you and I discussed yesterday).

For the avoidance of doubt, wherever the letter referenced above provides an instruction to "confirm that the arrangement detailed can be accommodated within the design standards and constraints which form part of the SDS contract" the subsequent use of a 'Note' in the text below has the status of information provision and does not form part of the instruction and does not modify the instruction.

I hope this helps to clarify matters and allows us to proceed rapidly.

David



**Parsons  
Brinckerhoff**

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65 Haymarket Terrace  
Edinburgh EH12 5HD  
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Our Ref: ULE90130-SW-LET-00705

11<sup>th</sup> July 2007

**tie** Limited  
CityPoint, 1<sup>st</sup> Floor  
65 Haymarket Terrace  
Edinburgh  
EH12 5HD

Attention: Tony Glazebrook

Dear Tony

***Critical Issues Meeting 21 June 2007  
Issues and Instructions Arising***

Thank you for your letter dated 26 June 2007. We can confirm that SDS has now remobilised those areas of design activity which have been held awaiting resolution of the Critical Issues. We are also very pleased to be able to acknowledge the collaborative approach taken by **tie**, TEL, and CEC to the resolution of the Critical Issues.

As part of this response we also acknowledge receipt of the email from David Crawley dated 29 June 2007 containing the clarification relating to the letter of the 26<sup>th</sup>:-

*'For the avoidance of doubt, wherever the letter referenced above provides an instruction to "confirm that the arrangement detailed can be accommodated within the design standards and constraints which form part of the SDS contract" the subsequent use of a 'Note' in the text below has the status of information provision and does not form part of the instruction and does not modify the instruction.'*

It is now twelve months since the SDS Preliminary Design was delivered and with the extended consultation on design options through the period since then it is our view that what has been developed is so close to optimum that there is nothing to be gained by delaying the completion of the detailed design while further possible refinements are investigated. In our view the major risk is not that the design may be 99% optimum rather than 100%; it is that further optioneering may delay completion of the programme to the point where cancellation of the scheme results. Interpreting the "Note" as part of the Instruction and taking at face value the direction to "... optimise where practicable the design further as a result of observations arising from the modelling exercise...." could have put us back to square one with unacceptable programme prolongation and costs, due either to rework or to delay awaiting CEC modelling results. David's clarification is therefore very welcome and we thank you for it.

For the avoidance of doubt we understand that should it be decided subsequently to revisit the design, (other than for reasons of non-conformance with standards), the risk of programme prolongation and increased costs remains with **tie**. As we have already suggested, though, we believe the risk to **tie** of not proceeding on the agreed basis would be substantially higher.

Turning to the individual Issues, we have now reviewed the instructions provided and have compiled a detailed response arranged by Critical Issue reference. The response is included here as a separate table.

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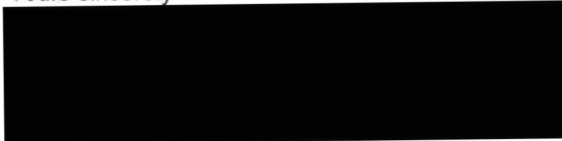




We note the request for us to provide revised programme dates for those items previously affected. We will be able to provide a full response when we have concluded our detailed review of the critical path with our Design Team Leaders, (DTLs). We have a meeting scheduled on Wednesday this week with the DTLs to review remobilisation progress and to ensure the remaining design scope is delivered in the most efficient way. We will be in a better position to provide you with accurate completion dates following this meeting.

Should you require further clarification on the issues detailed in this response please do not hesitate to contact either Stephen Reynolds or Jason Chandler. We look forward to working closely with **tie** on the timely provision of the remaining SDS deliverables.

Yours sincerely



**Parsons Brinckerhoff Ltd**  
**Stephen C Reynolds**  
**Project Director**

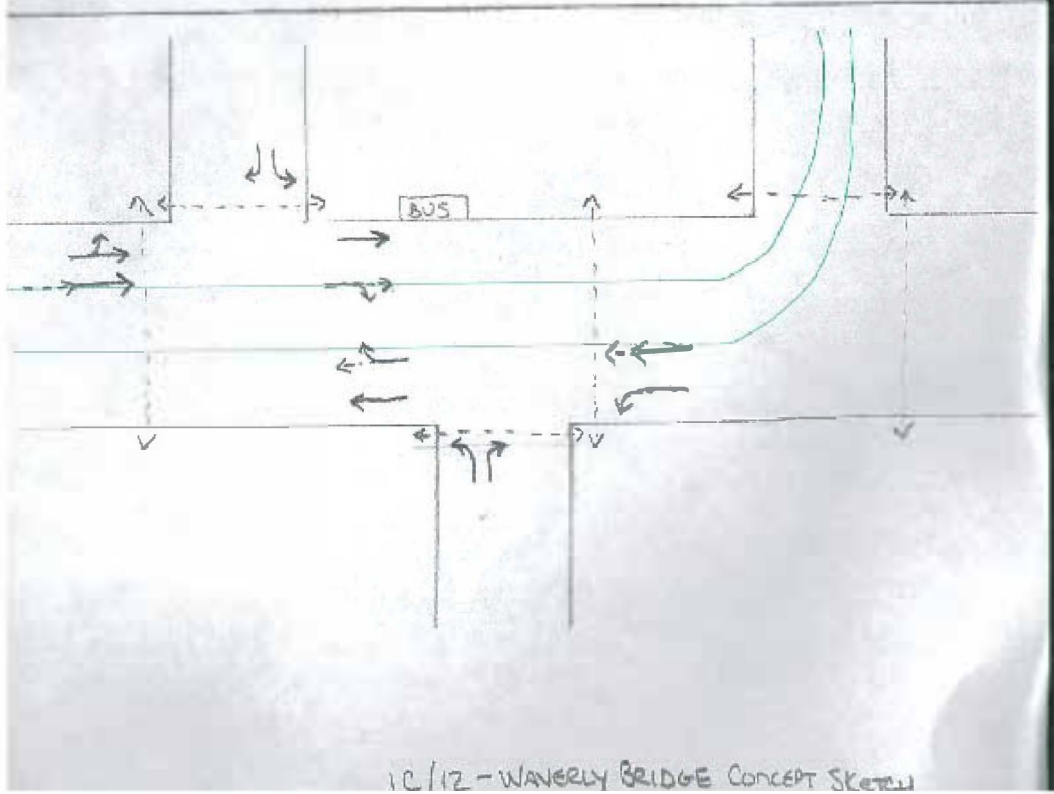
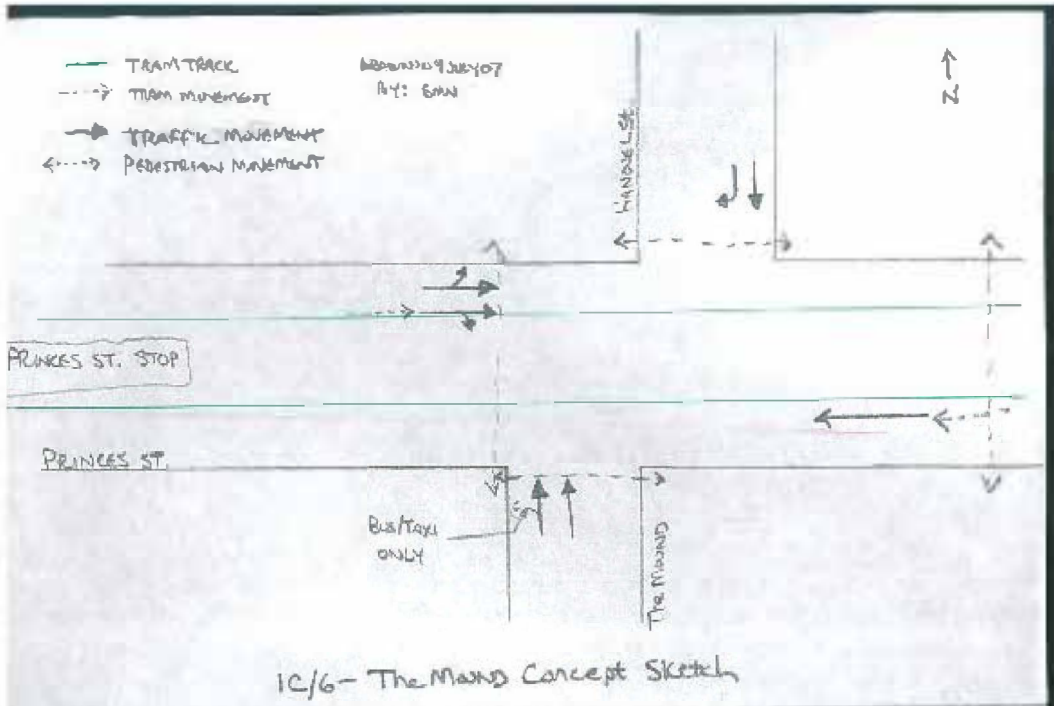
cc. David Crawley, tie  
Greg Ayres  
Jason Chandler  
Kim Dorrington  
SDM's

<p><b>1A /22 Forth Ports Outside Ocean Terminal</b></p>	<p>The drawings provided, together with the continuing close coordination with Forth Ports, provide sufficient information for SDS to develop the required revised design.</p> <p>The work will require a modification to the Forth Ports agreement.</p> <p>SDS notes that at a meeting held on 04 July Forth Ports has indicated some dates for a portion of the work. These dates appear to be unrealistic from the SDS standpoint, and we request that <b>tie</b> reviews expectations with Forth Ports.</p>
<p><b>1A /22 Cont /...</b></p>	<p>Assuming the "outside" tracks will be used for the through movements when a failed tram is to be stabled, there is physical space available to provide this function. However, this situation will not provide passenger ingress / egress for the entire length of the platform (note that the diagram assumes a tram longer than 40m, so 90m total length is used based on previous coordination discussions with <b>tie</b> / Transdev for stabling and coupling a failed tram). Approximately 8.7m of tram extends beyond the platform edge. An additional 3m of tangent length is available assuming that centre running will occur west of Ocean Terminal, which will mitigate a portion of this length. Final impacts cannot be determined until vehicle is selected and door locations are known.</p> <p>The stabled tram will also foul the "normal" pedestrian crossing routes between Ocean Terminal and the future development to the east. This is critical at the south end of the platforms, where sightlines are restricted by the failed tram, and little space is available for a safe detour. This is more easily mitigated on the east end, where sightlines are not compromised by the failed tram, and the pedestrian crossing will be fouled only when a live tram is at the stop. Additional space is more readily available on this end for a detour provision. The failed tram will also restrict to the use of the west crossover at Ocean Terminal, which will reduce the flexibility of the system during any (infrequent) tram vehicle failures.</p>
<p><b>1A /22a Forth Ports - Lindsay Road</b></p>	<p>Based on discussions with <b>tie</b> / CEC on 04 July 2007, and subsequent discussions with <b>tie</b> / CEC on 06 July 2007, SDS understands the requirements to provide a technical feasibility assessment on the Forth Ports proposals. SDS has sufficient information to provide this to <b>tie</b> for consideration. Once the technical feasibility is provided to <b>tie</b>, SDS requires <b>tie</b> to formalise the position to allow SDS to move forward into detailed design. Sufficient information to complete detailed design is not yet available.</p>
<p><b>1A /23</b></p>	<p>The drawings provided together with the continuing close</p>

<p><b>Forth Ports Bypass Road</b></p>	<p>coordination with Forth Ports, provide sufficient information for SDS to develop the required revised design.</p> <p>The work will require a modification to the Forth Ports agreement.</p> <p>SDS notes that at a meeting held on 04 July Forth Ports has indicated some dates for a portion of the work. These dates appear to be unrealistic from the SDS standpoint, and we request that <b>tie</b> reviews expectations with Forth Ports.</p>
<p><b>1A /23 Cont /...</b></p>	<p>Note that SDS will require <b>tie</b> to define how the work is to be procured, as it will have a fundamental impact on how the tram design is presented, and how the packaging of drawings will be completed. In order to assist, the outline construction programme is as follows:</p> <p>The construction of the new road is envisaged to be broken down in to 4 phases:</p> <ol style="list-style-type: none"> <li>1. the renewal of the junction with Ocean Drive;</li> <li>2. the renewal of the old Ocean Drive alignment to be used (currently access to car park);</li> <li>3. the new roadway to be constructed adjacent to the Scottish Executive building; and</li> <li>4. the new junction / tie-in with the Scottish Executive drive way.</li> </ol> <p>It its envisaged that the construction of these phase's will be in series from Ocean Drive to the junction with the Scottish Executive driveway and take approximately 14 weeks. The duration of 14 weeks has been based on a single lane carriageway, working a standard 8 hour day 5 days a week within the Code of Construction Practise. Note that this information is outline and should only be utilised or referenced in this light, as no final scope, design or site investigation has been undertaken, and as such, the durations provided above need to be verified with the actual design that will be completed.</p>
<p><b>1B /7 Foot of the Walk Junction</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER, and detailed design is being progressed based upon the agreed layout. The arrangement shown is deemed feasible based upon the level of design completed. Further design refinement will occur as the detailed design is developed.</p>
<p><b>1C /4 York Place</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER. Detailed design is being progressed based upon the layout discussed and agreed at the Roads Design Working group of 28 June 2007. Further design refinement will occur as the detailed design is developed.</p>

<p><b>1C /6 Junction Mound / Princes Street</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER. Information available in these drawings is not suitable to complete the design. However, based on the continuing discussions with CEC and TEL (after the Roads Design Working Group meeting referenced), and the additional advance modelling that SDS has undertaken to resolve this issue, the attached sketch shows SDS' understanding of the up-to-date concept that CEC prefers over the layout / signal phasing in the drawing referenced in your letter for this issue. It is understood that this will introduce fundamental changes to the traffic patterns outwith the tram scope to accommodate bus movements, however, CEC agreed that the modification to laneage and signal staging would benefit the overall operations at this location over the preliminary design concept.</p> <p>Consequently, based on the discussions to date, SDS is moving forward with the detailed design and traffic modelling based on this more optimal solution.</p>
<p><b>1C /12 Waverley Bridge</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER. Information available in the referenced drawings is not suitable to complete the design, as the drawing noted did not contain details for the junction. However, based on the continuing discussions with CEC, and the additional advance modelling that SDS has undertaken to resolve this issue, the attached sketch shows SDS' understanding of the up-to-date concept that CEC prefers. CEC agreed that the SDS proposed laneage and signal staging would benefit the overall operations at this location over the preliminary design concept.</p> <p>Consequently, based on the discussions to date, SDS is moving forward with the detailed design and traffic modelling based on this more optimal solution.</p>
<p><b>1C /13 &amp; 1C /15 Picardy Place</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER. Information available in the sketches referenced and subsequent discussions with CEC is suitable to complete the design.</p>
<p><b>1C /14 The Mound Junction</b></p>	<p>As per 1C/6 above.</p>
<p><b>1D /7 &amp; 1D /8 Haymarket</b></p>	<p>SDS acknowledges the formal change of status from RED to AMBER. Information available in the sketches referenced and subsequent discussions with CEC is suitable to complete the design.</p>
<p><b>3A /2 Coltbridge Viaduct</b></p>	<p>The instruction to proceed is sufficient.</p>
<p><b>3A /10 System Wide</b></p>	<p>The instruction to proceed is sufficient. SDS confirms that design is proceeding on the basis of the quantitative</p>

	information received from the only one of the two tram bidders to have responded with full information.
<b>3A /14 Coltbridge Viaduct</b>	The instruction to proceed is sufficient.
<b>5A /1 SRU Training Pitches</b>	The instruction is sufficient for SDS to proceed with detailed design. SDS takes this opportunity to confirm that the Tram design will proceed as instructed by <b>tie</b> at the CI meeting of 21st June, with an embankment design (as per Preliminary Design) for Structure S21D.
<b>7A /2 RBS "Landmark Stop"</b>	The instruction is sufficient for SDS to proceed with detailed design.
<b>7A /3 Delta at Newbridge Branch</b>	SDS acknowledges the instruction from <b>tie</b> . SDS now requests a letter removing the 'red' status for this area to supersede the RFI response.
<b>7A /9 Eastfield Avenue</b>	Please note that the drawings listed were not attached to the letter however Kate Shudall has received these from the EARL team via Lindsay Murphy. The meeting on the 25th took place (with KS and Gavin Murray) and KS noted that the drawings listed were incorrect because EARL had added the incorrect track alignment for tram. This does not give SDS confidence that the Eastfield Avenue Bridge design is progressing considering tram correctly. SDS requested revised plans to be sent to <b>tie</b> and SDS from the EARL team. This issue remains open.
<b>7A /10 Airport Stop</b>	The instruction is sufficient for SDS to proceed with detailed design.
<b>7A /11 Burnside Road</b>	Please note that the drawings listed were not attached to this letter however SDS has received these from <b>tie</b> via letter from Lindsay Murphy. SDS has replied to the letter - ULE90130-07-LET-00295.



## **APPENDIX 5**

**Text of Email dated 28 September 2007  
From PB to *tie* re MUDFA Issues**

Dear Willie

Thank you very much for your email. Following receipt of your email from yesterday I undertook a thorough review with my team and this email summarises my findings. Whilst I was unable to attend the MUDFA Sub-committee Meeting on Wednesday, I was present for the discussion on MUDFA which took place at last Friday's Critical Issues Meeting, and I have also had a number of conversations with Steven Bell on the subject. Let me say immediately that I fully appreciate and share your concern over the delays to production of the IFC drawings. I believe the challenge is to introduce changes to current methods of working such that all parties are properly engaged and committed to delivering in line with the Utilities Diversion design and construction targets.

The programme for production of the IFC drawings by SDS depends critically on the commitment of the SUCs. At the time PB was bidding for the SDS Contract we were provided via the Data Room with Draft Agreements (drawn up by DLA) between **tie** Limited, the City of Edinburgh Council, and each of the SUCs. These Agreements had been prepared in recognition of the fact that SDS would require information from the SUCs in order to complete the utilities diversions designs. The Agreements call for each of the SUCs to provide detailed information for this purpose and also highlight the need for that information to be made available sensibly in advance of the award of the MUDFA Contract. In the event the response from the SUCs was patchy. Information was provided in the required timeframe by a number of SUCs but in several cases proved not to be to the expected level of detail. One SUC, BT Openreach recognised the need for detailed information but has repeatedly failed to meet required sectional completion dates to the extent that several packages are still outstanding long after the MUDFA Contract was awarded. Given the need for composite drawings to be produced by SDS, detailing not just the specifics of the individual utility designs but also the integration between them, this failure by BT has resulted in serious delay to all subsequent milestones, including final delivery of the IFC drawings.

Once composite drawings have been prepared by SDS they are circulated for review and approval to each of the SUCs. The programme to date has been based on a four week duration for this activity. In practice four weeks has proved to be too short a period for Scottish Water with the result that final IFC milestones have slipped further. I understand from reading the MUDFA Sub-Committee papers prepared for the 26 September meeting that **tie** has now proposed that the period for SUC review and approval be reduced to two weeks. Experience to date suggests that Virgin Media, Thus, and Cable & Wireless will all have difficulty in meeting this revised target and I am not aware that Scottish Water has introduced the changes which would be required to improve performance to the required level. In this context it should be noted that the weekly workload arising from the responsibility for review and approval of the SDS drawings by the SUCs has yet to peak.

Problems with approval of SDS designs have also arisen due to the delay to the conclusion of a commercial agreement between **tie** and Scottish Gas. In the absence of an agreement it has not been possible for SDS to secure final approval, although SDS has been promoting an approach based on technical approval subject to later commercial endorsement.

It should also be noted that the designs which have been submitted for the Scottish Water, (Foul), diversions have been produced in the absence of a complete set of manhole data. AMIS is responsible for providing the required data and SDS has had



to work to complete designs without full information in order that programme impacts in this area are minimised.

My understanding is that a commercial agreement has now been concluded with Scottish Gas, and whilst there are several issues which need to be addressed to ensure timely completion of the remaining IFC drawing packages, two issues stand out as critical, viz;

- Continuing delay in the provision of design information from BT Openreach
- Failure by Scottish Water to meet the durations allocated within *tie's* MUDFA programme for design review and approval.

In addition to the discussions which I understand have now commenced between *tie* and SUC senior management a comprehensive action plan has to be formulated. MUDFA programme delivery is now on the agenda at the weekly Critical Issues meeting and I am proposing that the following items be added to the debate this week.

- The pros and cons of drafting a new IFC Delivery programme based on realistic periods for SUC review and approval
  - *Introducing more realistic periods for SUC review and approval carries with it the risk that the achievement of some milestones may be delayed. To offset this the whole programme should be reassessed with a view to relating sectional IFC drawing delivery dates more closely with MUDFA start-of-construction dates. In addition effort should be focused more sharply on early priorities. Some work is still progressing against out-dated schedule targets in areas where MUDFA construction work will no longer be undertaken – Section 5A for example, where utilities diversions will now be the responsibility of Infracore.*
- The need for *tie* to secure the buy-in from the SUCs to any revised programme. Given the critical dependence of IFC milestone dates on earlier SUC activities this is essential and any concerns over SUC commitment must be highlighted as early as possible.
- *tie* to consider the appointment of a replacement “Technical Liaison with Utilities” Manager. I understand that this position on the *tie* organisation chart has been vacant for some six weeks following the departure of the previous incumbent.
- The frequency of meetings with BT should be increased. Currently SUC management meetings are held with each SUC each period but it is evident that a more constructive relationship needs to be developed with BT. I understand that this is likely to require a significant increase in resources within BT for the initiative to succeed.

In my view, however, the number one priority in relation to unlocking the current logjam is for *tie* to enforce its contractual Agreement with BT Openreach.

I confirm that I will be in attendance at the next MUDFA Sub-Committee meeting which I understand has been scheduled for 24 October. In the meantime I would be

pleased to meet with you if required to discuss any other matters arising and I shall also give you a call today to talk things through.

Best regards – Steve

## **APPENDIX 6**

**Extract from the Legal Agreement between *tie* and BT**

- 2.9 In relation to the proposals submitted to BT pursuant to clause 5.5, the parties shall consult with a view to the inclusion of agreed matters within the scope of the Advance Diversion Works.
- 2.10 The parties shall act in good faith in the exercise of their obligations under this Agreement.
- 2.11 tie and BT shall designate a suitably qualified representative who shall meet on a monthly basis with his counterpart (or at such other interval as agreed) to review the performance of this Agreement.

### **3. CO-ORDINATED PROGRAMME OF WORKS**

- 3.1 The parties acknowledge and agree that the minimum disruption to the public, minimum diversionary works with minimum out-turn costs are important mutual but not absolute objectives in relation to the execution of the Advance Diversion Works and the BT Planned Works. To that end:
- 3.1.1 BT shall provide tie within 60 days of the last date of execution of this Agreement with a current programme of BT Planned Works taking into account that tie wishes to ensure execution and completion of the BT Planned Works within eighteen months of the date of Royal Assent for the first Bill to be enacted by the Scottish Parliament and BT undertakes to use reasonable endeavours to execute the BT Planned Works within the timeframe referred to; and
- 3.1.2 BT shall so far as BT is reasonably able having regard to the nature of the BT Planned Works and BT's statutory and other regulatory obligations, facilitate the implementation of the BT Planned Works, including early or adjusted commencement and implementation so as to complement the Utilities Diversion Strategy and the tie Programme.
- 3.2 For the avoidance of doubt, unless expressly agreed by the parties, the BT Planned Works shall not form part of the Advance Diversion Works.

### **4. DEVELOPMENT OF SCOPE OF ADVANCE DIVERSION WORKS**

In pursuance of section 143(1) of the 1991 Act, BT and tie shall work in collaboration with and assist each other in the development of the Utilities Diversion Strategy and in particular

enable the timely production of the scope, technical specification and overall programme for the Advance Diversion Works based on existing C3 proposals upgraded to a level C4 scheme and that within 42 days' of receiving a request therefor from tie or such other period as the parties may agree, both parties acting reasonably in this respect. Without prejudice to that generality, on request and reasonable notice by tie, BT shall:

- 4.1 provide C4 budget estimates in respect of the Advance Diversion Works but only insofar as such C4 budget estimates can be provided without any reference being made to, or engaging with, any third parties, BT being required to identify to tie any caveats in respect of the C4 budget estimates of which tie should be made aware as a result of the fact that BT did not go to the open market to assist in the production of such C4 budget estimates;
- 4.2 provide all relevant contemporary data including contemporary condition surveys relating to the presence and location of all buried and above ground Apparatus within the Limits of Deviation and particularly focusing upon the DKE plus two metres on either side thereof;
- 4.3 provide plans showing locations and indicative depths of all buried and above ground Apparatus within the Tram Project Affected Area;
- 4.4 confirm that the Advance Diversion Works do not adversely affect its assets or operations having satisfied itself in relation to the following:
  - 4.4.1 the extent, design, scope and programme of the Authorised Works;
  - 4.4.2 the proposed position of any alternative Apparatus to be provided or constructed with a view to ensuring that BT will be afforded the necessary facilities for the maintenance and renewal of that alternative Apparatus;
  - 4.4.3 BT's requirement to be able to maintain, repair or replace as necessary the Apparatus post construction of the Edinburgh Tram Network without adversely affecting or interrupting the operation and maintenance of the Edinburgh Tram Network;
  - 4.4.4 that neither the Advance Diversion Works nor any BT Planned Works will result in BT being in breach of its obligations as a statutory undertaker as defined in the 1991 Act or any other statutory, regulatory, contractual or other obligation;

- 4.5 facilitate the carrying out by **tie**, at **tie's** option, of a survey of the condition of all Apparatus in, upon, under, below or across the DKE plus two metres on either side, thereof, such survey to be carried out at **tie's** cost ("Initial Condition Survey");
- 4.6 work closely with **tie** in relation to implementation of the Utilities Diversion Strategy in accordance with **tie's** Programme in order to minimise diversion requirements and costs and in particular to identify and recommend appropriate adjustment to any programme of works likely to compromise or adversely affect the programme for the stopping up or diversion of any streets or roads for the purposes of the Authorised Works; and
- 4.7 attend and participate in meetings as may be reasonably required by **tie**, including but not limited to meetings (i) for the procurement selection of the Framework Contractor; (ii) concerning any working party established by the parties named in part 5 of the Schedule for the purpose of input to the Utilities Diversion Strategy; and (iii) during execution of the Authorised Works.

## 5. MANAGEMENT OF THE ADVANCE DIVERSION WORKS

- 5.1 **tie** shall instigate a public procurement to invite third parties to tender competitively for the appointment as Framework Contractor to carry out the Advance Diversion Works under a multi-utility Framework Agreement and **BT** hereby agrees to **tie** managing this process and letting the relevant contract subject to:
  - 5.1.1 the Framework Agreement containing, in relation to the Apparatus, the following:
    - 5.1.1.1 **BT** Specification LM550 (Issue 6);
    - 5.1.1.2 Provisions to the effect that the Framework Contractor warrants that all materials used in respect of Advance Diversion Works relative to the Apparatus will be in conformance with all applicable specifications, drawings and instructions;
  - 5.1.2 **tie** procuring the remedy of all defects in the Advance Diversion Work relative to the Apparatus which arise from faulty or incorrect materials, workmanship or performance standards which are not in accordance with the applicable specifications, drawings and instructions;