

Bilfinger Berger – Siemens – CAF Consortium

**EDINBURGH TRAM NETWORK
INFRACO CONTRACT**

**PERIOD REPORT No 2-8
TO 7 NOVEMBER 2009**

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1 EXECUTIVE SUMMARY

81,423 hours were worked in period 2-7, of which 53,252 were site hours with no reportable accident.

The basis for progress measurement in this report is the Programme Rev 1 showing the agreed mitigated impact of the initial design slippage as 38 days (7 weeks 3 days) on the end date. The incorporation of design information from the current design issue programme, actual progress on site and known access dates after MUDFA completion delayed the original programme completion date to 19 December 2012.

Production of civil and building drawings in accordance with the original design is approximately 88% complete. In general earthworks, roads, track and structures drawings are available and drawings for the depot, substation and tramstops are being completed to support construction.

Civil drawings, revised to incorporate Siemens design (trackform including vibration isolation, OLE foundations, substations) are largely complete. Drawings are being prioritised to support construction.

System engineering design is finalised for OLE and traction power and approaching finalisation for track, depot equipment, signalling and other disciplines.

Tram manufacturing is progressing well.

Programmes for EOT Entitlement and Revision 2 were previously submitted to *tie* indicating a delay for the completion of the programme to 20 January 2013 and 2 October 2012 respectively.

A total of 501 Changes have been notified to *tie* with a submitted estimated value of £71,775,000. 105 of these estimates have been partly agreed by issue of a *tie* Change Order in a total value of £7,561,000.

Virtually all construction works are impacted by external issues which require resolution through the change process of the contract.

tie has referred 1) Financial aspects to EOT 1, 3) Carrick Knowe Bridge and 4) Gogarburn Bridge to Dispute Resolution Procedure (DRP). BSC have referred 1) Delays Arising from MUDFA Programme Rev 8 and 2) Russell Road Retaining Wall 4 to the Dispute Resolution Procedure.

The above mentioned disputes are at various stages of the Dispute Resolution Procedure.

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2 HSQE

2.1 Health & Safety

2.1.1 Network Rail Health and Safety Plan is under review at present by Martin Burke and will be submitted when finalised, by all consortium partners. The Construction Phase Health and Safety Plan Rev 4 is also under review at present by BSC to ensure that it is still appropriate for the scope of works and the management of risk.

2.1.2 Accidents, Incidents and Near Misses/Unsafe Conditions:

Period 2-7 to 2-8 records up to the 23 October 2009

No reportable accidents recorded up to the date above.

8 Infraco Near Misses/Unsafe Conditions Recorded in the Period:

1. 17 September 2009 – Broomhouse Road – vehicles crossing medium pressure gas main without appropriate traffic management in place.
2. 17 September 2009 – Lothian Road junction – unauthorised vehicle movements were noted by the BSC subcontractor.
3. 21 September 2009 – Princes Street outside Boots – a jack hammer's air hose connection came loose, without injury to site personnel.
4. 22 September 2009 – Roseburn Street/Western approach road junction – temporary traffic light head reported as being loose by a member of the public.
5. 23 September 2009 – Guided Busway mini excavator vandalised during the night.
6. 24 September 2009 – Smouldering fire was extinguished outside the consortium office at the smoking shelter.
7. 3 October 2009 – Site barriers at Bankhead Drive were blown over in high winds.
8. 14 October 2009 – Depot, rope jam observed during lifting operation, rope replaced and re-rigged, lift carried out successfully.

14 Accidents/Incidents Recorded:

1. 14 September 2009 – 4" water main to Princes Street gardens leaking at chainage 130 140. Repaired by Scottish Water overnight.
2. 16 September 2009 – power cable damaged on Princes Street at chainage 130 050.
3. 22 September 2009 – whilst compacting type 1 on Princes Street outside M&S, water was observed rising through the compacted material. Repair carried out.
4. 23 September 2009 - Edinburgh Park Bridge – operative had dust blown into his eye. Treated by first aider.
5. 23 September 2009 – Guided Busway was entered by vandals who emptied diesel over a bus shelter and surrounding area. This was contained in the morning and the spill relatively small.

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6. 28 September 2009 – Princes Street the Mound cable nicked while old traffic signal box was been demolished
7. 26 September 2009 – Guided Busway Security guard was mugged over night and had his mobile phone stolen. Increased number of security guards.
8. 28 September 2009 – Princes St and South Charlotte St. whilst excavating and moving a steel plate the steel plate severed a cable. Traffic signals affected, junction manned until repairs made
9. 1 October 2009 – Princes St/Waverley Bridge clean water emptied in down drain
10. 4 October 2009 – Charlotte Square new Traffic Management caused problems for buses, barrier hit by speeding bus.
11. 6 October 2009 – Lothian Road junction, traffic lights fuse blown
12. 6 October 2009 – Frederick St junction, after breaking concrete sub-base, strong water flow was observed
13. 12 October 2009 – Princes St, undetected cable encountered while breaking out concrete
14. 15 October 2009 – Princes St. operative cut his leg with a Stanley knife while opening packaging.

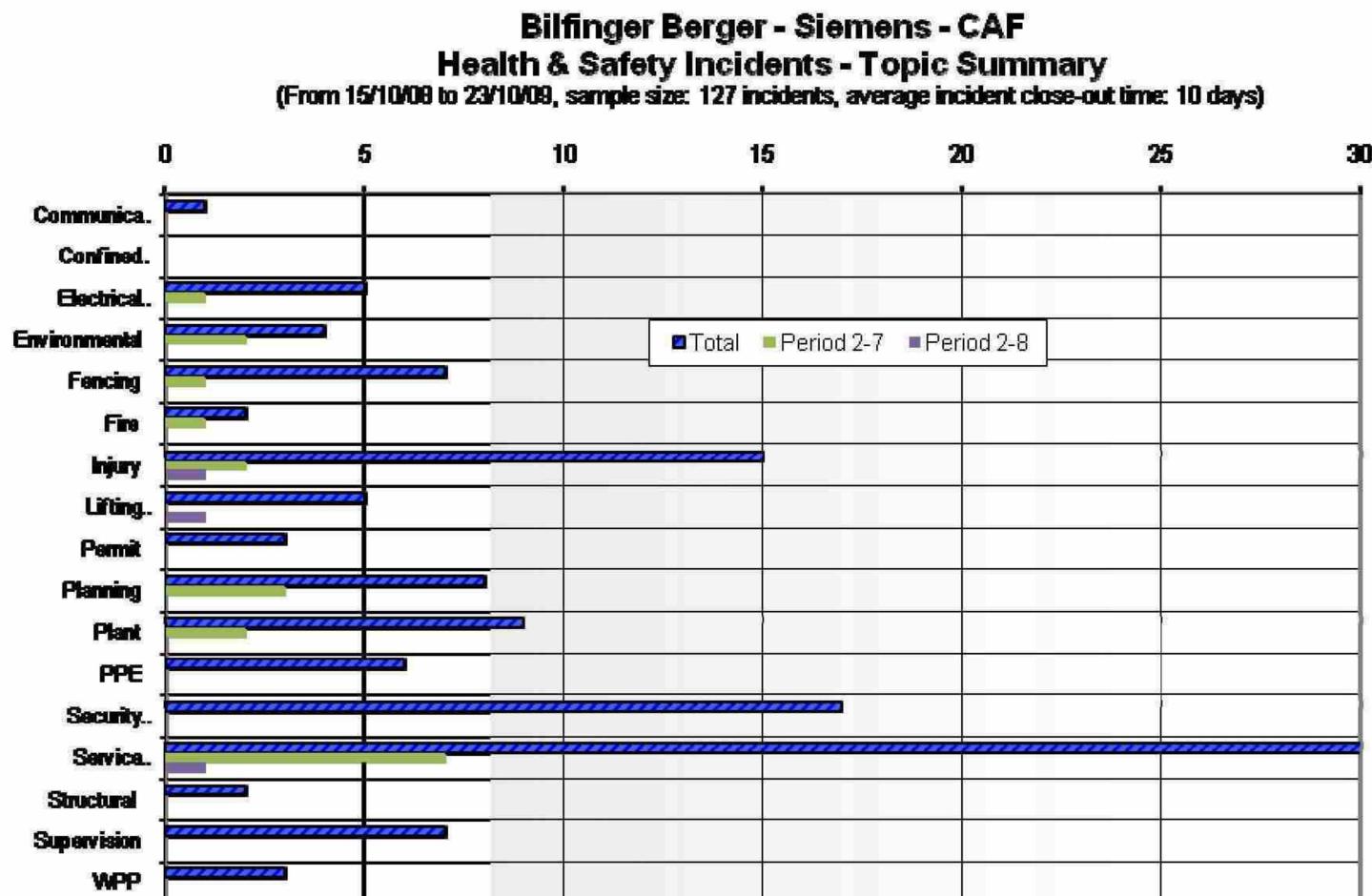
The AFR for period 2-7 is **0.12**.

Total Hours worked in Period 2-7:

Total:	81,423
Non site hours =	28,171
Site Hours =	53,252

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2.1.3 Rolling Trend Analysis for period 2-7 & 2-8 up till the 23 October 2009 on safety and environmental related activities.



2.2 Environment

2.2.1 An NCR has been raised to Farrans regarding inappropriate treatment of concrete slurry.

2.2.2 An Environment Audit is scheduled for 26 October to be carried out by Yvonne Rowse of ECUS Ltd.

2.2.3 JDC Ecology has been carrying out various surveys to comply with protected species licence conditions on Section 7.

2.3 Any Other Business

2.3.1 As part of their involvement with the Edinburgh Tram Project Bilfinger Berger along with Deborah Services Ltd have been asked to deliver a presentation on Preventing Falls from Vehicles at the HSE Safety and Health Awareness Day on November 3 in Fife.

KPI spreadsheet for Period 2-7 and Schedule 40 is attached at Appendix 1.

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2.4 Quality

2.4.1 Quality Management System

During the last period the following new documents have been submitted to *tie* for acceptance:

- BSC Human Factors Integration Plan

During the last period the following documents have been re-submitted to *tie* for information/acceptance:

- BSC Systems Interface Management Plan (Rev B)
- BSC Project Quality Plan (Rev 4)
- Detailed Design Assurance Plan (Rev F)
- BSC ITP No 02 (Issue 3) – for acceptance
- BSC ITP No 03 (Issue 3) – for acceptance
- BSC ITP No 06 (Issue 4) – for acceptance
- BSC ITP No 13 (Issue 5) – for information
- BSC ITP No 15 (Issue 7) – for information
- BSC ITP No 15-1 (Issue 2) – for information
- BSC ITP No 26-2 (Issues 2 & 3) – for acceptance
- BSC ITP No 37 (Issue 5) – for acceptance
- BSC ITP No 38 (Issue 1) – for acceptance (no change - just clarification given)

An ITP Packaging Readiness Workshop for Princess Street Works was carried-out on 14 October 2009 for Sub-Contractors Crummock and MacKenzie as well as for Bilfinger Berger Management and Supervisory Staff. *tie* were also represented and a total of 20 people attended a workshop that went very well. The Objective of the Workshop is: 'for Sub-Contractors and BSC Supervisory staff to be aware of the Approved (by *tie*) Procedure for Planning, Execution and Packaging of ITPs in readiness for the completion of the Princess Street Works (1C/1D) around the end of November 2009'. A follow-up workshop meeting will be convened leading-up to the planned handover date.

The *tie* HSQE and BSC Consortium Quality Managers met to discuss ways to improve the submittal, review (RoR) and acceptance of deliverables processes.

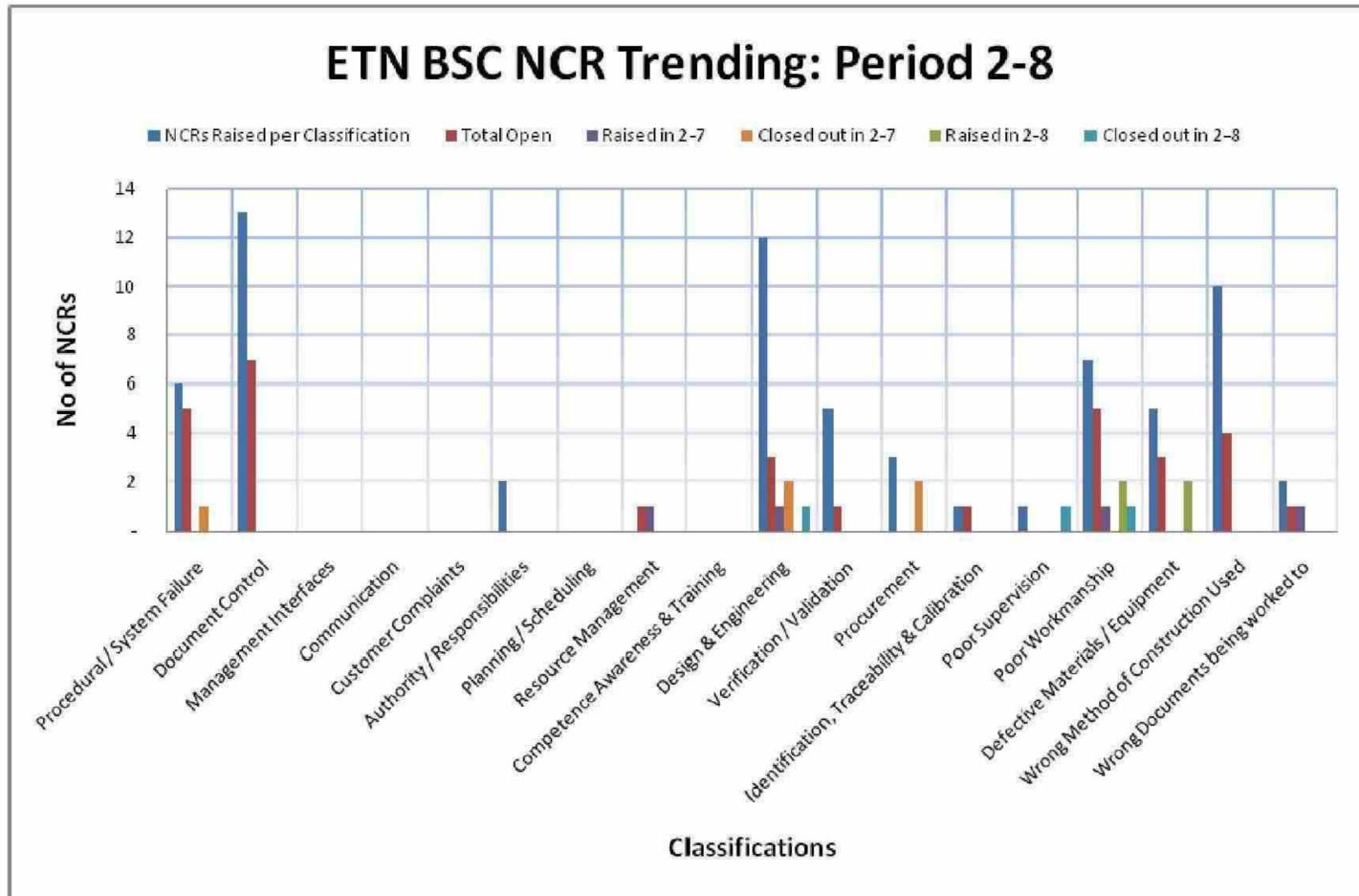
2.4.2 NCRs

At the time of writing there are currently 27 open quality NCRs from a total of 71 raised to date, 3 having been cancelled and the remaining 41 having been closed-out. 7 NCRs were raised during the last period. 9 NCRs were closed during the last period.

QUA-00068: Weld is repaired according to Network Rail standard NR/SP/TRK/0123 but can only be retested after removal of the temporary crossing.

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The latest trending histogram for Quality NCRs is shown below.



2.4.3 Audits

During the last period:

- responses were sent to **tie** regarding audit findings number 11 & 18 of audit TQA-08-07 which took place on 13-15 January 2009.
- responses were sent to **tie** regarding audit findings number 01, 04 & 07 of audit TSA-09-01 which took place on 28 August 2009.
- responses were sent to **tie** regarding audit findings number 01, 02 & 03 of audit TSA-09-03 which took place on 1 October 2009.

tie have notified BSC of a Design Safety Assurance Audit to take place on 18 November 2009 and will concentrate on Trams (CAF). BSC have asked **tie** for an audit checklist and plan, as well as confirmation of whether the audit will take place at Edinburgh Park offices or in CAF’s premises in Spain.

The scheduled (for October) Internal BSC Technical Change Management Audit should go ahead during next period.

3. PROGRAMME

The programme at Appendix 10.2 to this report has the V31 mitigation programme incorporated. This programme has been accepted by **tie** in accordance with Clause 60.4 as the “Programme” (Rev 1) and is used as a baseline for reporting progress.

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Progress achieved up to 30 October 2009 has then been recorded against the above baseline including inputting the latest IFC dates received from SDS (V50).

No IFC date has been received for the redesign of South Gyle Access Bridge (programme defaulting to 30 October 2009).

The Programme identifies completion of MUDFA works in each Intermediate Section and uses these dates as a start milestone for the INFRACO work. BSC have progressed (“progress to date”) the Programme in accordance with the Contract and the MUDFA completion dates have been extracted from MUDFA revision 8.0 programme. A number of the MUDFA revision 8.0 programme completion dates have now passed and their works are still incomplete. These milestones are therefore defaulting to the programme data date (30 October 2009)

It should be recognised that the Programme has only been progressed were noted in this report and does not include for all changes that we are aware of or have been notified to date e.g. dealing with abandoned services, misalignment issues, growth in work scope etc.

The result is the following changes to Section Completion Dates:

	30 October 2009	02 October 2009	Programme
A	03 June 2011	18 July 2011	01 June 2010
B	10 October 2011	12 September 2011	01 July 2010
C	22 June 2012	15 May 2012	10 March 2011
D	19 December 2012	11 November 2012	06 September 2011

The critical path to the completion of the works now runs through Soil Nailing at the Depot, 6A, 5B, 5C, 7A, 5A, 1C, 1D & 5C track work 5C, 1B & 1C OHLE and 1C M&E.

Although the soil nailing activity in the Programme represents soil retention alongside the A8 road adjacent to the depot, the logic is equally applicable for the earth retention measures that will be required on the north side of the depot excavation.

At a number of locations the construction sequence has been changed, from that originally considered, to suit current constraints. Presently the logic of the Programme remains unaltered from that envisaged at Contract Award. Therefore some inaccuracies occur when “progress to date” has been entered into the Programme.

Note – the links between the third party consents and the related activities present in the Programme have been deleted to enable a true analysis to be provided of the current situation.

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As a result of events which have negatively impacted on the Programme the works have had to be re – sequenced in an attempt to mitigate the delays which are being incurred. Effectively the following constraints have been disregarded by the BSC construction team:

- Completion of MUDFA works in Intermediate Section 1D and the start of the Infraco works.
- Completion of other sections of track work prior to commencing in Princes Street.

If the corresponding constraints are broken in the “progressed” Revision 1 Programme the Sectional Completion D does not change from that reported. This broken logic has now been used to produce the Programme for this report.

The attached Programme considers progress achieved against the agreed Revision 1 Programme. The Revision 1 Programme was based on the base date design information (BDDI) and other Programme Assumptions. Hence the analysis to provide the predicted Section Completion does not take into account the increased scope of works which is now apparent post BDDI. These predicted dates are thus significantly earlier than would be expected if all factors governing the construction of the works are taken into account.

The EOT Entitlement programme and Revision 2 Programme shows section completion dates of 20 January 2013 and 02 October 2012 respectively. These programmes were data dated at the end of March 2009 and gave a more accurate prediction of the anticipated completion of the works. However, further slippage will have occurred between their production and the date of this report (October 2009) e.g. the issue of and slippage to the Rev 8 MUDFA programme causing further dominant delay. These projected completion dates could therefore be up to 7 months later than originally published.

3.2 Look Ahead Programme

This programme is provided for information and coordination purposes only; and without prejudice to the rights of the Infraco under the Agreement. This programme constitutes a target programme and as such, contains durations that are based on a risk profile not consistent with the Accepted Programme.

The Look-Ahead Programme for the period November 2009 to January 2010 is an extract from the current Construction Programme updated with the latest IFC dates from the SDS V50 Programme and also updated with progress of The Works recorded and assessed to 30 October 09. MUDFA activities are scheduled in accordance with their programme Rev 08 received 5 May 2009. Where MUDFA Works are ongoing, the Completion Milestones will continue to default to the report date unless planned completion dates are later.

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Section 1A

MUDFA temporary works at Tower Bridge are complete and Infracore works are currently scheduled to start after 4 weeks mobilisation pending resolution of Change Items; the estimate for which was re-submitted on 9 October 2009. MUDFA/Utility Works on Section 1A Newhaven to Casino were planned 10 June 2009 to 16 December 09, and at Lindsay Road were planned 6 July 2009 to 14 September 2009, but have not yet started, therefore these MUDFA items are defaulting to the Data Date. In the absence of further planning information Infracore Works for Lindsay Road have been scheduled to commence 4 January 2010.

Existing Public Utilities in Lindsay Road are currently issued for tender and present a further constraint.

The Forth Ports Authority Revised Agreement has to date not been signed. This signing is required for Works to commence and is detailed as a further constraint.

The proposed Traffic Management Scheme was accepted by CEC and Forth Ports Authority on 30 June 2009.

Section 1B - Leith Walk

A re-start meeting was held on 19 October 2009.

MUDFA Works are to be clear by 30 November 2009. Detailed BT Works drawings indicate completion on 27 December 2009.

Trial holes are required to confirm construction requirements, but should be carried out before 30 November 2009 or in January. No works to be undertaken during December. Utility conflict schedules are being prepared and development of a revised detailed construction programme is underway. Works in this section are planned to commence in three sections of Leith Walk on 4 January 2010, or at an agreed date to align with wider TM scheme.

Section 1C - Picardy Place to Princes Street

A detailed construction schedule is being developed for this section in a similar format to 1D.

TM Scheme design is progressing as planned.

Section 1C/D - Princes Street

The MUDFA Works area between South St David Street and South St Andrew Street achieved final handover to the Infracore on 19 August 2009 following completion of the Gas Main diversion. Similarly, at The Mound a partial handover was achieved on 8 July 2009, and the full width of Princes Street on 22 July 2009, but ongoing BT Works continued in Hanover St. and The Mound until 19 October 2009, but although now clear of Infracore works, BT have one diversion which remains to be carried out.

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At the Lothian Road junction the previously planned MUDFA Works completion date of 31 July 2009 slipped, achieving handover on 7 August 2009. This delay added a further critical delay to the works.

The Princes Street detailed Programme Revision E and Narrative was issued on 28 August 2009 together with detailed programmes for Lothian Road, The Mound, and the Festival Fireworks Display. A planned Completion Date of 28 November 2009 is programmed, but with multiple criticality. The programme narrative highlights the Infraco's concerns. A planned Decision Date on 29 October 2009, 4 weeks before Planned Completion, is scheduled for a review of the works status.

An updated Plan of MUDFA/Utility operations and confirmation by *tie* of the MUDFA/Utility outstanding completion dates will assist with planning to further mitigate delay in these areas. Communications and power services are currently awaiting diversion near South Charlotte St.

A meeting was held on site with Scottish Water on 25 September 2009 to assess the condition of the exposed Crawley Tunnel. The condition of the tunnel is not compatible with the design based on previous site investigation. Re-design and construction are underway but resolution of this issue may impact on the Target Completion Date of 28 November 2009, but site teams are now meeting weekly to develop and work with a schedule of outstanding works as a programme to completion together with and a contingency plan should it be required.

Section 1D - Haymarket Junction to Shandwick Place

Infraco Works on Haymarket Junction were originally planned to commence on 5 January 2009. Ongoing utility works currently delay the commencement of Infraco Works in this section. Handover to the Infraco is now notified by *tie* to be 10 October 2009 extending to 27 November 2009 for switching of BT cables which allows Infraco Works to commence after the Christmas embargo.

Following rejection of the previous Traffic Management proposal a further scheme utilising the crescents was approved on 27 July 2009. Pending completion of MUDFA ongoing gas main diversion works at Canon St and Atholl Crescent, which was expected to take until the end of September, but as of 30 September 2009 the final phase has not yet started, any Infraco Works in this restricted area before the Christmas Embargo would be limited. In addition, agreement of Change Items would be required before commencement of Works.

A detailed draft Construction Programme (Revision 08) is now being developed to suit current constraints for the construction of Haymarket Junction from the viaduct through Shandwick Place to Lothian Road tie-in. Significant changes now included are the infilling of the existing underground chambers and planning for full depth construction with capping layer.

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Section 2

Package Contractor programme received.
Awaiting agreement of Change.

Section 5A

Package Contractor programme received.
Awaiting agreement of Change.

The Infraco received an Instruction to Proceed with construction of Russell Road Retaining Wall W4. The piling platform has been installed and piling is planned to commence on 28 October 2009.

Section 5B

Carrick Knowe Bridge

The Infraco received an Instruction to Proceed with construction of Carrick Knowe Bridge which started on 14 September 2009. The detailed Construction Programme has been issued and is summarised in the Look-Ahead Programme.

Guided Busway

Progress as planned.

Section 5C

Gyle Tram Stop retaining Wall – Services exposed 28 August 2009 for Scottish Power check of cables, but backfilled and awaiting start of Works.

S28 A8 Underpass

Service diversions by Infraco are planned to commence 2 November 2009. It is estimated that piling may be able to re-commence on phases 1 and 2 by the end of October 2009, pending resolution of Change Items.

Section 6

Works re-commenced in the depot area on 17 August 2009.
Construction Programme has been issued and is summarised in the Look-Ahead Programme.

Construction of the Depot Building has progressed to erection of structural steelwork which started on 5 October 2009.

The remaining 35,000m³ of excavation will take place at a later stage.
Earthworks batters are being trimmed and installation of drainage has commenced.

Section 7

The Gogarburn Bridge deck was concreted on 22 October 2009 and Works are now progressing with construction of the corbels and transition slabs.

Culverts 1, 2, and 3 are now substantially complete.

Preparation is underway for construction of the Hilton Hotel car park which is planned to commence 2 November 2009.

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Other programme activities are delayed pending resolution of Change Items.

3.3 Tramco Programme Status

Updated tram design, procurement, manufacturing, delivery and commissioning programme is attached as Appendix 10.4.

4 PROGRESS

Programme update attached as Appendix 10.2.

4.1.1 Civil & Building Design

4.1.1.1 Production IFC Design

Programme

Version 49 of the SDS Design Programme was issued to BSC and *tie*. The programme identifies some slippage in certain activities. The slippages are explained within the Variance Statement that was issued with the Design Programme.

BSC have asset up regular management meetings with SDS to enquire general slippage, resourcing constraints and the way this is being managed moving forward.

Approvals

SDS is closing in on obtaining the final planning and technical approvals required. There has been a recent increase in the number of approvals required due to new instructions received, and as such, the percentages may indicate lower completion rates than last period.

SDS reporting progress as follows:

From a total of 230 planning and technical approvals:

- 88 % are approved (202).
- 8 % are pending approval (19).
- 4 % are to be submitted (9).

Current status (today) is:

- 92% Planning Approvals granted.
- 84% Technical Approvals granted.

4.1.1.2 Issues and Concerns

A weekly Design Changes Issues meeting between BSC, SDS and *tie* has been set up to work through and seek resolution to Design Change issues. This is positive and continues to unblock long outstanding changes; however, the following key issues are still to be resolved:

- Section 1C2 Technical Approval – Internal CEC Planning/Transport issues to be resolved. This was due to be resolved and approval granted

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by 7 July 2009 but is still outstanding. *tie* has been requested through Approvals Taskforce and Design Changes Meeting to assist in resolving this issue with CEC.

- CEC preference for Demarcation between Tramway and Roadway; Demarcation solution accepted by SDS. Commercial issue to be resolved between *tie* and BSC (SDS). SDS to provide additional information to support their argument. A technical meeting with *tie* will be arranged following submission of further information from SDS. This is not holding up or impacting on any works.
- CEC Transport request for relocation of OLE poles in Section 1A is deemed to be a change. SDS has provided additional information to support this argument. BSC are awaiting *tie* response to agree the change or otherwise. *tie* to provide necessary utility as built information to move this issue forward.
- Picardy Place (Section 1C2) – *tie* have instructed the Stage 1 & 2 design work of INTC 321. Letter issued by CEC on 18 September 09 identifying additional changes required Further CEC changes need to be instructed by *tie* as part of the finalisation of the Picardy Place design. This is holding up Section 1C2 Technical and Scottish Water Approvals
- Transdev comments - this is being worked through the ODR meetings with *tie*. It has been accepted by *tie* that some comments will be a change if still deemed necessary by *tie* and will need to be instructed. *tie* have provided response to BSC comments. BSC are reviewing currently with SDS and will provide further clarification to *tie* shortly.
- Roseburn Viaduct – information has been outstanding from Network Rail for over three months. All information was due by 24 July 2009 to keep to IFC date. *tie* procured their own survey to provide as built details to inform the SDS design as none were available from Network Rail. *tie* issued survey on 27 August 2009 to allow design to progress. Survey issued in incorrect format. Correct Genio Survey issued by *tie* on 10 October 2009. The impact of the late delivery of the information from *tie* has pushed back the IFC date as indicated in V50 of the SDS Design Programme.
- TRO Programme – BSC/SDS/*tie* meeting has agreed resolution of INTC 242 and allowed finalisation of TRO 1 drawings and subsequent issue of drawings to CEC on 28 September 2009. Further TRO changes to be discussed at meeting to be set up by *tie* week commencing 26 October to discuss additional information provided by SDS.
- Resolution and finalisation of Forth Ports Agreement. Further changes have been intimated by *tie* which could further delay finalisation of Section 1A. *tie* to review with CEC and Forth Ports and advise BSC.
- RBS Gogarburn Tram Stop – BSC have assisted *tie* in finalising future proofing requirements for the RBS Tram Stop and await instruction from

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tie to progress this. This is one of the last major approvals issues that remain outstanding. *tie* have issued letter without drawings or clear scope of what needs to be done as part of this change. BSC await a revised and clear scope including necessary drawings to allow the design estimate to be prepared.

- MUDFA Conflicts – this is being coordinated by *tie* and *tie* will advise BSC of impacts once conflict schedule and MUDFA as built have been reviewed by *tie*. We await an update from *tie* on this.
- INTC 277 – Airport Canopy and Boundary Treatment. Design change is on hold until *tie*/BAA comments provided to allow design to be finalised. *tie* to follow up with BAA and advise. *tie* have provided comments and meeting held to advance design. Meeting with BAA still required prior to progression of design to Planning Approval stage
- No minutes have been issued by *tie* for Approvals Taskforce meetings since 18 August 2009.
- Informatives – BSC await confirmation from *tie* on the Informatives that are the responsibility of *tie*. This was raised with *tie* on 22 August 2009 and is still outstanding.

4.1.1.3 Extended Construction Support and Design Support

The proposed organisational chart for the upcoming month is attached in Appendix 10.8. Updated CVs to be provided to support resources proposed for Extended Construction Support.

Stephen Surtees has been added to the Extended Construction Support Org-chart as M&E Engineer.

4.1.1.4 Workshops

Development Workshop Earthing & Bonding, workshop report was published on 14 October 2009.

Development Workshop Drainage workshop, report was published on 14 October 2009.

Development Workshop SCC Loops, workshop report was published as draft on 24 September 2009.

The status of all Development Workshops is shown in Appendix 10.9.

Depot

Concrete reinforcement details & schedules have been issued for the bogie turntable, the wheel lathe, and under floor lifting jacks. Piling schedules for the stabling area are now expected before the end of October and will allow progress in that area.

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Critical design issues to be progressed include finalising the OLE pole positions across the site to allow piling/foundations, ducting distribution from the substation to the OLE poles, Substation details, and M&E details around the Control Room & Equipment Room.

Automated Sand Filling Plant – draft drawings from specialist supplier Klein have been received. Formal issue via an Interface Control Form is awaited. High level inspection platforms – a workshop is scheduled for w/c 26 October to discuss requirements and finalise design.

Tram Stops

BSC equipment is being integrated into the detailed shelter design. Shelter and platform furniture will be incorporated into the civil design to discharge informatives.

4.1.1.5 Request for Information (RFI)

BSC and *tie* met last on 24 September 2009 to discuss and close out open RFIs.

On status date 23 October 2009 – RFI summarise as follows:

RFI's open:	17 total
RFI's open and unanswered:	4
RFI's responded to but require further clarification:	13
RFI's issued in October 09:	2
RFI's responded in October 09:	1
RFI's closed in October 09:	2

BSC to respond to *tie* regarding clarification and to arrange RFI meetings between *tie* and BSC to close out open RFIs on a regular basis.

4.1.2 Procurement

4.1.2.1 Sub-Contractors

A Sub-Contract Procurement Schedule, showing status at 23 October 2009, is attached as Appendix 10.6.

Section 1A

Section 1A has now been split into three areas, Newhaven to Ocean Terminal (1A1), Ocean Terminal to Port of Leith (1A2) and Port of Leith to Foot of the Walk (1A3).

BSC intend to sublet Section 1A1 and 1A2 to McKean and Company (Glasgow) Ltd. BBUK are now concluding the terms and conditions of McKean subcontract order. They were issued with a Letter of Intent on 4 August 2009.

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BSC intend to extend Crummock's involvement down from Foot of the Walk to Port of Leith (1A3).

Section 1B

BSC have concluded the procurement process for Section 1B.

Section 1C

Crummock have submitted their price for 1C1 (MacDonald Road - London Road) and BSC are currently reviewing this.

BSC are concluding terms and conditions with Mackenzie Construction Ltd over section 1C3 (Castle Street - Waverley Bridge).

It is BSC's current intention to self deliver the remaining works in Section 1C2 (London Road – Waverley Bridge) and a final strategy for carrying out the works is still to be agreed, a prequalification process is underway.

Section 1D

Final negotiations are proceeding with MacKenzie to conclude a Sub-Contractor order.

Section 2A and 5A (Part)

Final negotiations are proceeding to conclude a Sub-Contractor order with Grahams. Following the issue of a Change Order pursuant to Clause 80.15 to proceed with Russell Road Retaining Wall 4 Expanded Piling have been issued with an extension to their current letter of intent to cover the mobilisation of a piling rig to complete the piling on Wall W4, units 11 to 18.

Section 5A (Part), 5B and 5C (Part)

BSC intend to sublet the remaining structures on Sections 5A, B and C to Expanded Ltd. Discussions continue over finalising programme and terms and conditions. A revised Letter of Intent was sent to Expanded Ltd on 29 May 2009 to allow for procurement and mobilisation which has been later extended to include the preparation and submission of Form C's. Following receipt of a Change Order pursuant to Clause 80.15 Expanded Ltd's letter of intent has been further increased to cover the construction of Carrick Knowe Bridge.

Smaller trade package quotations for the balance of the civils works in Section 5 have been received, e.g. ducting and drainage, service diversions and others are currently under review.

Section 6

BSC have finalised the terms and conditions of the full Sub-Contractor order for Barr Ltd for the construction of the depot.

BSC and Barr are considering *tie's* response in respect of the Edinburgh Airport Limited Subcontractor Collateral Warranty.

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Section 7A

Final negotiations with Farrans on the terms and conditions of a Sub-Contract order have been concluded.

BSC and Farrans are considering *tie's* response in respect of the Edinburgh Airport Limited Subcontractor Collateral Warranty.

General

Procurement of relevant key Sub-Contractors (Major Civil Works Contractors, Piling Contractors, Ground Stabilisation Specialists) includes the requirement for provision of a Collateral Warranty, in accordance with Clause 28.7 of the Contract.

BSC may need to offer *tie*, in some instances, alternative wording for their Collateral Warranty agreement, as BSC have not as yet been able to conclude our negotiations with potential Sub-Contractors using the template in Schedule 8 Part F.

The length of time it has taken to either procure, negotiate and conclude any Sub-Contract has been affected by the complexity of the main contract negotiations and how BSC and *tie* require step down into the subcontract, the necessity to operate a complex milestone schedule which can be adversely affected by progress and change on site and the overall uncertainty on programme.

BSC have concluded the procurement process for the supply and erection of Tramstop Shelters and equipment and a request under Clause 28.2 was submitted to *tie* on 9 September 09. BSC await *tie's* response.

Bilfinger Berger – Siemens – CAF Consortium

4.1.5 Construction

**Progress on site to 30 October 2009
Reported against Revision 1 of the Programme
Duration % Complete (workdays)**

Section	Planned Progress Programme Revision 1	Actual Progress to 30-10-2009	Completion Date Programme Revision 1	Anticipated Completion Date (Progressed Programme Revision 1)
1A	49%	0%	07/03/2011	22/06/2012
1B	57%	3%	05/11/2010	22/03/2012
1C	46%	1%	11/03/2011	13/06/2012
1D	60%	45%	17/09/2010	26/01/2012
2A	82%	8%	03/03/2010	15/06/2011
5A	56%	1%	20/12/2010	20/04/2012
5B	65%	21%	31/08/2010	09/12/2011
5C	62%	1%	20/09/2010	03/02/2012
6	71%	8%	01/06/2010	03/06/2011
7	64%	15%	05/10/2010	27/01/2012
Construction	61%	10%	Section C 10/03/2011	Section C 22/06/2012
			Section D 06/09/2011	Section D 19/12/2012

Infraco Works Commenced/Completed during the period

Section 1A

Utility work issued to Infraco for tender

Section 1B

No change

Section 1C

No change

Section 1D

Princes Street works ongoing

Section 2A

No change

Bilfinger Berger – Siemens – CAF Consortium

Section 5A

Walls W3 & W4:
Instruction to Proceed received
Ground Investigation
Piling Platform
Piling commenced

Section 5B

Carrick Knowe Bridge:
Instruction to Proceed received
Re-started on 14 September 09
South Abutment commenced
North Abutment commenced

Edinburgh Park Bridge:
Structural bridge deck completed

Section 5C

Gyle Tran Stop Retaining Wall:
Services backfilled (no test)

Section 6A

Drainage:
Outfall manhole commenced
Building:
Column foundations completed
Structural steelwork commenced

Section 7A

Gogarburn Bridge:
Deck concreted
Corbels commenced

Culvert No1 - substantially complete
Culvert No2 - substantially complete
Culvert No3 - substantially complete

4.1.5.2 Section 1A Newhaven Road to Foot of the Walk

Lindsay Road Retaining Wall

Progress
No activities carried out during period.

Time lost in the period 4 weeks.

Issues and Concerns
Changes from BDDI to IFC have not been agreed.

Anticipated start date 1 March 2010, 70 weeks later than indicated on Programme (Rev 1).

Bilfinger Berger – Siemens – CAF Consortium

Commencement date is dependant on agreement of change to Utility works now transferred to Infraco.

MUDFA completion of service diversions may further delay the commencement of construction activities.

IFC scope of works will increase duration of construction activities.

Trackwork - Lindsay Road to Ocean Terminal

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Issues and Concerns

Commencement date is dependant on agreement of change to Utility works within Lindsay Road which have now been transferred to Infraco.

Anticipated start date 1 March 2010 71 weeks later than indicated on Programme (Rev 1).

IFC design incomplete for carriageway and track work construction.

Track work & carriageway changes from BDDI to IFC have yet to be agreed.

Change estimates on Utility transferred by *tie* have not been agreed.

MUDFA works incomplete.

IFC scope of works will increase duration of construction activities.

Trackwork - Ocean Terminal to Port of Leith

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 26 January 2010 anticipated completion will be 3 August 2011, 58 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

IFC design incomplete for carriageway and track work construction.

Track work & Carriageway Changes from BDDI to IFC have yet to be agreed.

Change estimates on Utility transferred by *tie* have not been agreed.

MUDFA Works incomplete.

IFC scope of works will increase duration of construction activities.

Bilfinger Berger – Siemens – CAF Consortium

Victoria Bridge

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 13 December 2011 anticipated completion will be 7 February 2012, 72 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Change from BDDI to IFC has not been agreed.

IFC scope of works will increase duration of construction activities.

Tower Place Bridge

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 12 January 2010 anticipated completion will be 20 April 2011, 52 weeks later than indicated on Programme (Rev 1).

Issues and concerns

Changes from BDDI to IFC have not been agreed.

Additional design information requested by Forth Ports may delay issue of Licence to commence construction.

IFC scope of works will increase duration of construction activities.

Trackwork – Port of Leith to Bernard Street

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 8 October 2010, anticipated completion will be 1 April 2011, 58 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

IFC design incomplete for track work.

Re design of carriageway pavement incomplete.

Track work & carriageway Changes from BDDI to IFC have yet to be agreed.

Change estimates on Utility transferred by *tie* have not been agreed.

MUDFA works incomplete.

Bilfinger Berger – Siemens – CAF Consortium

IFC scope of works will increase duration of construction activities.

Trackwork – Bernard Street to Foot of the Walk

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 9 March 2011 anticipated completion will be 10 February 2012, 75 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

IFC design incomplete for track work.

Re design of carriageway pavement incomplete.

Track work & carriageway Changes from BDDI to IFC have yet to be agreed.

Change estimates on Utility transferred by *tie* have not been agreed.

MUDFA works incomplete.

Archaeological works are incomplete.

IFC scope of works will increase duration of construction activities.

4.1.5.3 Section 1B Foot of Leith to McDonald Road

Trackwork – Foot of the Walk to Balfour Street

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 20 November 2009 anticipated completion will be 21 March 2011, 58 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Anticipated commencement date is not achievable.

Re design of carriageway pavement incomplete.

Track work & carriageway Changes from BDDI to IFC have yet to be agreed.

Change estimates on Utility transferred by *tie* have not been agreed.

MUDFA works incomplete.

Agreement is required on revised Traffic Management principle.

IFC scope of works will increase duration of construction activities.

Bilfinger Berger – Siemens – CAF Consortium

Trackwork Balfour Street to McDonald Road

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 3 March 2010 anticipated completion will be 27 February 2012, 70 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Re design of carriageway pavement incomplete

Track work & carriageway Changes from BDDI to IFC have yet to be agreed.

Change estimates on Utility transferred by *tie* have not been agreed.

MUDFA works incomplete.

Agreement is required on revised Traffic Management principle.

IFC scope of works will increase duration of construction activities.

4.1.5.4 Section 1C McDonald Road to Princes Street West

Trackwork McDonald Road to Picardy Place

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 19 November 2009 anticipated completion will be 16 February 2012, 70 weeks later than indicated on Programme (Rev 1).

Issues and Concerns.

Anticipated commencement date is not achievable.

Re design of carriageway pavement incomplete

IFC design incomplete for track work.

Track work & carriageway Changes from BDDI to IFC have yet to be agreed.

Change estimates on utility transferred by *tie* have not been agreed.

MUDFA works incomplete.

Agreement is required on revised Traffic Management principle.

IFC scope of works will increase duration of construction activities.

Bilfinger Berger – Siemens – CAF Consortium

Trackwork Picardy Place to St Andrew Square

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 11 May 2011 anticipated completion will be 1 June 2012, 64 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

IFC design incomplete for carriageway and trackwork construction.

Trackwork & Carriageway Changes from BDDI to IFC have yet to be agreed.

Change estimates on Utility transferred by *tie* have not been agreed.

MUDFA works incomplete.

IFC scope of works will increase duration of construction activities.

Re design of carriageway pavement incomplete.

Trackwork St Andrew Square to Waverly Bridge

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 18 November 2010 anticipated completion will be 9 June 2011, 65 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

IFC design incomplete for carriageway and trackwork construction.

Trackwork & Carriageway Changes from BDDI to IFC have yet to be agreed.

Change estimates on Utility transferred by *tie* have not been agreed.

MUDFA works incomplete.

Re design of carriageway pavement incomplete.

IFC scope of works will increase duration of construction activities.

Trackwork Waverly Bridge to Castle Street

Progress

Duct and drainage installation has continued. OLE foundation and carriageway construction has continued. Track improvement layer and track installation has continued in the period. Surfacing and footway finishing activities have continued in the period.

Bilfinger Berger – Siemens – CAF Consortium

Anticipated completion will be 28 November 2009, 16 weeks later than indicated on Programme (Rev 1). Based on BDDI work scope.

Activities are currently on programme, when monitored against Rev E of the construction programme which has a completion date of 28 November 2009.

Therefore the anticipated completion date will be 17 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

IFC design incomplete for carriageway and trackwork construction.

MUDFA works incomplete at the Mound.

MUDFA/Utility works incomplete at Waverley Bridge.

Revision E construction programme has numerous critical paths and no contingency allowance for any future unforeseen events.

Agreement needed on solution for Crawley tunnel.

Traffic Control Change has yet to be agreed

Surface finishes change has yet to be agreed.

4.1.5.5 Section 1D Princes Street to Haymarket Trackwork Castle Street to Lothian Road

Progress

Duct and drainage installation has continued. OLE foundation and carriageway construction has continued. Track improvement layer and track installation has continued in the period. Surfacing and footway finishing activities have commenced in the period.

Anticipated completion will be 28 November 2009, 19 weeks later than indicated on Programme (Rev 1). Based on BDDI work scope.

Activities are currently on programme, when monitored against Rev E of the construction programme which has a completion date of 28 November 2009.

Therefore the anticipated completion date will be 21 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

IFC design incomplete for carriageway and track work.

Revision E construction programme has numerous critical paths and no contingency allowance for any future unforeseen events.

Traffic Control Change has yet to be agreed.

TRO/TTRO issues have yet to be resolved.

Bilfinger Berger – Siemens – CAF Consortium

Surface finishes change has yet to be agreed.

Trackwork Lothian Road to Haymarket

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 30 October 2009 anticipated completion will be 19 December 2011, 67 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Track work & carriageway Changes from BDDI to IFC have yet to be agreed.

Change estimates on Utility transferred by *tie* have not been agreed.

MUDFA works incomplete.

IFC design incomplete for track work.

Re design of carriageway pavement incomplete

IFC scope of works will increase duration of construction activities.

4.1.5.6 Section 2A Haymarket to Roseburn Junction

Haymarket Station Viaduct

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming recommencement on 30 October 2009 anticipated completion will be 23 April 2010, 57 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

Trackwork Haymarket to Russell Road

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 30 October 2009 anticipated completion will be 7 December 2010, 59 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Track work changes from BDDI to IFC have yet to be agreed.

Bilfinger Berger – Siemens – CAF Consortium

IFC design incomplete for track work.

IFC scope of works will increase duration of construction activities.

4.1.5.7 Section 5A Roseburn Junction to Balgreen Road

Russell Road Bridge

Progress

No activities carried out during period.

Time lost in the period 4 weeks

Assuming commencement on 30 October 2009, anticipated completion will be 4 August 2010, 71 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC are yet to be agreed.

IFC scope of works will increase duration of construction activities.

Russell Road Retaining Walls W3 & W4

Progress

Instruction to proceed has been received during the period which has allowed mobilisation to commence. Piling rig scheduled to commence works on 28 October 2009. Ground investigation to determine extent of possible ground contamination has commenced in the period.

Time lost in the period 2 days.

Assuming commencement on 28 October 2009, anticipated completion, based on BDDI work scope, will be 23 August 2010, 43 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC are yet to be agreed.

Unforeseen underground obstructions currently being removed from line of proposed piles, hence programme slippage. Change to be agreed through record sheets

IFC scope of works will increase duration of construction activities.

Murrayfield Tram Stop Retaining Wall

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 24 February 2010, anticipated completion will be 11 January 2011, 88 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

No IFC drawings for construction.

Bilfinger Berger – Siemens – CAF Consortium

Changes from BDDI to IFC are yet to be agreed.

Trackwork Russell Road to Murrayfield Stadium

Progress

No activities carried out during period.

Time lost in the period 4 weeks

Assuming commencement on 5 November 2010, anticipated completion will be 8 September 2011, 65 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

IFC design incomplete for trackwork construction.

Track work Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Roseburn Street Viaduct

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 7 October 2010, anticipated completion will be 15 September 2011, 71 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

IFC design incomplete.

Changes from BDDI to IFC have yet to be agreed.

Murrayfield Retaining Wall 21B

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 23 April 2010, anticipated completion will be 11 November 2010, 83 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Murrayfield Stadium Underpass

Progress

No activities carried out during period.

Bilfinger Berger – Siemens – CAF Consortium

Time lost in the period 4 weeks.

Assuming commencement on 30 October 2009, anticipated completion will be 16 April 2010, 60 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Murrayfield Retaining Walls 21D

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 5 April 2010, anticipated completion will be 25 August 2010, 55 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Water of Leith Bridge

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 5 August 2010, anticipated completion will be 4 April 2011, 57 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Baird Drive Retaining Wall

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 11 November 2009, anticipated completion will be 17 March 2010, 60 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Bilfinger Berger – Siemens – CAF Consortium

Balgreen Bridges

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 10 November 2009, anticipated completion will be 13 January 2012, 104 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Rail Bridge

IFC drawings have yet to be issued.

Changes from BDDI to IFC have yet to be agreed.

Tram Bridge

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Trackwork Murrayfield Stadium to Balgreen Road

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 1 September 2011, anticipated completion will be 28 March 2012, 65 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

IFC design incomplete for trackwork.

Trackwork Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

4.1.5.8 Section 5B Balgreen Road to Edinburgh Park Central

Trackwork Balgreen Road – Carrick Knowe

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming recommencement on 30 October 2009, anticipated completion will be 4 August 2010, 65 weeks later than indicated on Programme (Rev 1) .

Issues and Concerns

Trackwork changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Bilfinger Berger – Siemens – CAF Consortium

Drainage changes from BDDI to IFC have yet to be agreed.

IFC design incomplete for trackwork construction.

IFC scope of works will increase duration of construction activities.

Carrick Knowe Bridge

Progress

Time lost in the period none.

Instruction to proceed has been received during the period. This has allowed formwork, reinforcement and concreting work to the substructure to commence in the period.

Commencement on 14 September 2009, anticipated completion, based on BDDI work scope, will be 12 August 2010, 69 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Trackwork Carrick Knowe – South Gyle Access Bridge (Guided Busway)

Progress

No time lost in the period.

Piling operations for OLE foundations have finished during the period.

Construction of pile caps has commenced in the period and all duct crossings have now been installed.

The west section of the works have been handed over to Siemens for track installation works.

Anticipated completion is 19 May 2010, 59 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

OLE design not yet issued IFC.

Trackwork design not yet issued IFC.

Drainage changes from BDDI to IFC have yet to be agreed.

OLE & Trackwork Changes from BDDI to IFC have yet to be agreed.

Ground conditions not as envisaged.

Bilfinger Berger – Siemens – CAF Consortium

Bankhead Retaining Wall

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 27 November 2009, anticipated completion will be 7 January 2010, 74 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

Commencement dependant on resolution of re design at South Gyle Access Bridge.

IFC scope of works will increase duration of construction activities.

South Gyle Access Bridge

Progress

No activities carried out during period.

Time lost in the period 4 weeks

Assuming commencement on 30 October 2009, anticipated completion will be 29 June 2010, 75 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Redesign has yet to be completed.

Changes from BDDI to IFC have yet to be agreed.

Trackwork South Gyle Access Bridge to Edinburgh Park

Progress

Temporary fence erection has been completed.

Time lost in the period 4 weeks.

Assuming commencement on 30 October 2009, anticipated completion will be 15 April 2010, 60 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Trackwork changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

IFC design incomplete for trackwork construction.

IFC scope of works will increase duration of construction activities.

Bilfinger Berger – Siemens – CAF Consortium

Edinburgh Park Bridge

Progress

No time lost in the period.

Concreting of the deck has been completed in the period. Cope construction has commenced. Anticipated completion is 3 February 2010, 33 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Earthworks changes under approach embankments from BDDI to IFC have now been agreed.

Structure changes from BDDI to IFC have yet to be agreed.

Soft spot changes have yet to be agreed.

Track Work Edinburgh Park Station – Edinburgh Park Central

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 30 October 2009, anticipated completion will be 8 February 2011, 69 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Trackwork changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

IFC design incomplete for trackwork construction.

IFC scope of works will increase duration of construction activities.

4.1.5.9 Section 5C Edinburgh Park Central to Gogarburn

Trackwork Edinburgh Park Central – Gyle Centre

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 27 November 2009, anticipated completion will be 8 July 2010, 65 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Trackwork changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Bilfinger Berger – Siemens – CAF Consortium

Drainage changes from BDDI to IFC have yet to be agreed.

Utility changes Instructed by *tie* have yet to be agreed.

IFC design incomplete for trackwork construction.

IFC scope of works will increase duration of construction activities.

Gyle Tram Stop Retaining Wall

Progress

Backfilling of trial excavation to locate existing services has been carried out during the period.

Time lost in the period 4 weeks.

Assuming commencement on 30 October 2009, anticipated completion will be 26 November 2009, 76 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Scottish Power have verbally confirmed they want the existing cable recovered during excavation works.

Depot Access Bridge

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 28 September 2010, anticipated completion will be 23 March 2011, 60 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

A8 Underpass

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming recommencement on 30 October 2009, anticipated completion will be 28 September 2010, 60 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

Bilfinger Berger – Siemens – CAF Consortium

Utility diversions are incomplete.

Scope of Utility protection measures have not been agreed

IFC scope of works will increase duration of construction activities.

Trackwork Gyle Centre to Depot Stop

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 23 March 2011, anticipated completion will be 1 February 2012, 110 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Trackwork changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

IFC design incomplete for trackwork construction.

IFC scope of works will increase duration of construction activities.

Track Work Depot Stop – Gogarburn

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 29 March 2010, anticipated completion will be 30 March 2011, 68 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Trackwork changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

4.1.5.10 Section 6A Depot

Earthworks/Drainage

Remedials to existing earthworks commenced in the period.

Construction of Outfall Manhole completed in the period. Drainage works commenced.

Bilfinger Berger – Siemens – CAF Consortium

Time lost in the period 4 weeks.

Assuming recommencement on 30 October 2009, anticipated completion will be 29 March 2010, 69 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Excavation for Depot Building will be disrupted pending resolution of change to earthworks in Sections 5 & 7.

Drainage changes from BDDI to IFC have yet to be agreed.

Trackwork

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 29 March 2010, anticipated completion will be 8 November 2010, 58 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Trackwork changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

IFC design incomplete for trackwork construction.

Depot Building

Progress

No time lost in the period 2 weeks.

Foundation works has been completed. Steel work commenced 5 October 2009.

Anticipated completion is 1 December 2010, 58 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Numerous Changes from BDDI to IFC have yet to be agreed.

Depot Substation

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 30 October 2009, anticipated completion will be 1 June 2010, 60 weeks later than indicated on Programme (Rev 1).

Bilfinger Berger – Siemens – CAF Consortium

Issues and Concerns

Issued IFC drawings will be subject to further change.

Access Roads

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 30 October 2009, anticipated completion will be 11 November 2010, 61 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Issued IFC drawings will be subject to further change.

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

4.3.5.11 Section 7A Gogarburn to Edinburgh Airport

Gogarburn Culvert No 1

Progress

Installation works continued and are now substantially complete. Excavation and removal of soft material caused 1 week slippage.

Time lost in the period 1 week.

Anticipated completion 30 November 2009 46 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Agreement of change on soft spot yet to be agreed.

Gogarburn Bridge

Progress

No time lost in the period.

Main deck construction work has been completed with parapets ongoing.

Anticipated completion is 11 December 2009, 43 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Trackwork Gogarburn to Ingliston Park & Ride

Progress

Bilfinger Berger – Siemens – CAF Consortium

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 8 October 2010, anticipated completion will be 11 August 2011, 66 weeks later than indicated on Programme (Rev 1).

Current float on anticipated Section B Completion date of 8 September 2011 is 20 weeks.

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

IFC scope of works will increase duration of construction activities.

Gogarburn Culvert No 2

Progress

No activities carried out during period. Culvert substantially complete.

No time lost in the period.

Anticipated completion 5 January 2010, 48 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

None

Gogarburn Culvert No 3

Progress

Installation works continued and are now substantially complete.

No time lost in the period.

Anticipated completion will be 12 January 2010, 43 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

None

Gogarburn Retaining Wall

Progress

No activities carried out during period.

Time lost in the period 4 weeks

Assuming commencement on 25 January 2010, anticipated completion will be 17 May 2010, 60 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

Bilfinger Berger – Siemens – CAF Consortium

MUDFA works are incomplete.

Trackwork Ingliston Park & Ride to Edinburgh Airport

Progress

No activities carried out during period.

Time lost in the period 4 weeks.

Assuming commencement on 8 October 2010, anticipated completion will be 11 August 2011, 66 weeks later than indicated on Programme (Rev 1).

Issues and Concerns

Trackwork changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

IFC design incomplete for trackwork construction.

IFC design incomplete for earthworks construction.

4.2 E&M SYSTEMS

4.2.1 OLE (Overhead Line Equipment)

Design

All detailed designs submitted and ROR comments raised responded to. Revised design documents, which address design review comments received and design changes requested by others (i.e. SDS/ *tie*/ CEC) are currently being submitted.

Approvals and Consents

Drafts for Princes Street discussed with *tie*/CEC prior to submission. Formal presentation to CEC made 22 October 2009 including confirmed the colour of the paint to be used.

Issues and Concerns

As expressed in earlier *tie*/BSC monthly progress meetings and in view of the magnitude of the overall programme delay in the range of, or even exceeding, one full year, Siemens confirms having deliberately postponed the procurement of several equipment and materials, in order to mitigate the “cost-over-time” factors (extended storage, expiration of manufacturer warranties, obsolescence for high-tech items, risk of theft, loss or damage). This shall not be construed as concurrent delay, but as a deliberate management measure to reduce cost of delay. Siemens shall ensure that all items whose procurement is so postponed shall still be timely delivered before actually needed on the site, ie. within the float of the subsequent installation activities as already delayed in the programme.

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A similar approach applies to various installation subcontracts, deliberately not yet activated nor mobilized by Siemens, as a mitigation measure (not concurrent delay). Mobilization shall still be managed by Siemens without causing any critical path delay.

All above applies to all technical lots of Siemens, although for simplicity it shall only be reported here in OLE, as an introductory statement.

CEC have stated construction should not commence until full planning approval granted but have not defined acceptance criteria. Additional request made by CEC that OLE poles to be of uniform height whether with a lighting element or not, which is a new requirement not included in the ERs, and thus constitutes a Mandatory ***tie*** Change. Programme and cost impact being assessed.

Production

Subcontractors for OLE materials supply have been defined. Installation sub-contract being retendered on the basis of including mitigation measures for further programme slippages and restrictions on access caused by others. Tenderers have been evaluated. Contracting let will facilitate accelerated Princes Street works.

Material for building fixations has been delivered to allow, if duly authorized by ***tie***, its installation ahead of overall Civil Works and Trackwork. This would allow ensuring that such installation shall be kept away from the overall Programme's critical path.

FAT covering Princess Street Poles completed successfully (incl. finials for combined Street Lighting). Poles for Princes Street arrived in storage area Edinburgh.

4.2.2 TPS (Traction Power Supply)

Design

No changes.

Approvals and Consents

Details of disconnecter cabinets to be covered by overall submission of on-street consents.

Issues and Concerns

Same comments as mentioned in "OLE" above.

Production

Installation subcontractor tender requests re-issued to include mitigation of programme delays. See issues and concerns regarding material and production

All TPS FATs completes successfully (all major DC switchgear components, 11kV AC switchgear, rectifier transformer, power cables) in accordance with

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documentation submitted to and accepted by *tie* earlier. Shipment of all main equipment as listed above to warehouse in Edinburgh currently in process.

4.2.3 TRW (Trackwork)

Design

- Detailed Design Rheda City Open Formation Broomhouse Road Bridge on Guided Busway (Rev.A) has been submitted to *tie*.
- Detailed Design Rheda City Open Formation Saughton Road Bridge on Guided Busway (Rev.A) has been submitted to *tie*.
- Detailed Design Track Layout Drawings 055915, 055916, 055917, 055918, 055919 has been submitted to *tie*.
- Basic Design Report: Tram Section on Guided Busway – Drainage Design has been submitted to *tie*.
- Detailed Design: Tolerances Rheda Track – Horizontal/Vertical has been submitted to *tie*.
- Detailed Design: Trackwork Specification – Concrete (Rev. C) has been submitted to *tie*.

Approvals and Consents

- Basic Design Report: Tram Section on Guided Busway – Drainage Design has been accepted by *tie*.
- Detailed Design: Tolerances Rheda Track – Horizontal/Vertical has been accepted by *tie*.
- *Tie* confirmed that the details of the internal drainage design need only to be approved by CEC.
- Detailed Design: Trackwork Specification – Concrete (Rev. C) has been accepted by *tie*.

Issues and Concerns

- Groundborne Noise & Vibration Issues may influence the TRW design and programme. A detailed field investigation has been conducted by a specialized consultant (D2S), full report has been submitted to *tie*. A *tie* Notice of Change is still required to further proceed with the detailed engineering and with a construction Estimate.
- Still unresolved final trackform design to overcome 275 kV cable and Scottish Power Tunnel at Leith Walk.
- Need to re-synchronize detailed configuration and actual status of definition of which trackform shall apply in which exact line section. Changes have been introduced in parts of SDS Design at the request of third parties (mainly planning authorities) but without consideration of any possible commercial impact on the project. A careful discussion with *tie* about such possible commercial impacts might force to renegotiate with the planning authorities the choice of other trackforms at specific locations.
- Changes in Design and Change Orders may influence the TRW programme.
- Ground conditions and utilities that cannot be / have not been relocated to lower levels may influence the TRW design and programme.

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- Un-clarified programme delay might cause problems with procurement of long-lead materials on time (e.g. switches).
- Wheel-rail interface concerns of *tie* at turnouts still need to be finally closed out.
- Markle Mains Quarry ballast is not yet approved. Also, design of ballast to slab track transition needs to be reviewed (minimum ballast depth).
- Need to agree on derailment containment provision in a few locations (Notified Departure).

Following design activities are planned within the reporting period

- Switches and crossing
- Depot
- Guided Busway

Production

- Further TRW construction at Princes Street, although at lower than planned rates of progress due to still existing MUDFA obstructions and construction time due to the Track Improvement Layer.
- Site mobilization on Guided Busway

Following production activities are planned within the reporting period

- Track Installation and joint sealing at Princes Street.
- Track Installation on the Guided Busway

4.2.4 DWE (Depot Workshop Equipment)

Design

Design is further progressing.

tie's RORs Level A approval is obtained for the following design submittals:

- Underfloor Wheel Lathe
- Measuring Equipment
- Service vehicles
- Crane

tie's RORs Level B approval is obtained for the following design submittals:

- Washing Plant,
- Lifting Plant and
- Shop Equipment Part 1
- Tools

Clarification process (from *tie* to BSC and vice-versa) to *tie's* RoR comments is ongoing.

Related SDS civil works detailed design (foundations, cableways, pits, etc.) follows the issuance of the Siemens detailed design of equipment.

Current progress includes preparation of detailed design of:

- Shop Equipment Part 2

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all in support of procurement of long lead time items and to provide design input.

In order to finish these outstanding design submittals the topics mentioned under “Issues and Concerns” needs to be clarified.

Technical meetings with the tram maintenance for the performance requirements of the equipment are conducted and will be followed up.

Approvals and Consents

Essentially, DWE shall not require Approvals nor Consents of external Approval Bodies, but only, the formal review by *tie*.

As regards such review by *tie*,

- Under floor Wheel Lathe design submittals handed over in October 2008.
- Crane Submittal handed over in January 2009.
- Lifting Plant Submittal handed over in January 2009.
- Washing Plant Submittal handed over in January 2009.
- Service Vehicle Submittal handed over in April 2009.
- Measuring Equipment Submittal handed over in May 2009.
- Shop Equipment – Part 1 handed over in September 2009.
- Tools handed over in September 2009.

Comments from *tie* have been received to the submittals of:

- Underfloor Wheel Lathe Submittal
- Crane Submittal
- Storage Loads
- Lifting Plant Submittal
- Washing Plant Submittal
- Service Vehicles
- Shop equipment Part 1
- Tools

all have been answered and resubmitted except the Washing Plant.

Further comments given with *tie's* ROR to the Washing Plant latest Submittals will be answered after clarification on the comments have been completed.

A derogation proposal has been presented to substitute the original full-sized forklift vehicle by a smaller, motorized hand propelled pallet stager plus a bogie turntable.

A further derogation proposal has been presented to put straight the tram throughput within the washing plant.

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Issues and Concerns

In order to finish these outstanding design submittals decisions are required regarding:

- acceptance of the above derogation proposals
- cancellation of ultrasonic cleaning bath and arc welding kit from BSC offer

Delays to Site availability.

In view of the magnitude of the overall programme delay in the range of, or even exceeding, one full year, Siemens confirms having deliberately postponed the procurement and/or the production process of several equipment and materials, in order to mitigate the “cost-over-time” factors (extended storage, expiration of manufacturer warranties, obsolescence for high-tech items, risk of theft, loss or damage). This shall not be construed as concurrent delay, but as a deliberate management measure to reduce cost of delay. Siemens shall ensure that all items whose procurement is so postponed shall still be timely delivered before actually needed on the site, i.e., within the float of the subsequent installation activities as already delayed in the programme.

Production

Procurement of long lead items is well underway. For other items procurement is postponed according to mitigation strategy above.

Orders placed for underfloor wheel lathe, underfloor lifting plant, washing plant and crane.

Postponement of the production process has been initiated as far as possible and reasonable.

This will be followed up according to the project progress and adapted as far as possible.

Current production completion dates are:

- underfloor wheel lathe - May 2010
- underfloor lifting plant March 2010
- washing plant March 2010
- crane March 2010

4.2.5 Signalling, Communication, SCADA, PIS, PA

Design

Signalling

All received Records of Review (RORs) comments from **tie** have been responded. Resubmissions published for TPDS onboard and trackside equipment; resubmission for control centre and interlocking are in progress.

Loop development workshop report has been issued to **tie** for review.

Alarms workshop held with **tie**/Transdev 25 June (covering all SIG, COM, SCA, PIS, PA functions). Follow up meeting to include prioritisation of alarms to be undertaken 20 October.

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SCADA, PIS, PA (RailCom Manager), PABX, Radio

All detailed designs have been submitted to *tie*, and all ROR comments have been responded. Review clarification meeting held on RailCom Manager Design.

Approvals and Consents

Formal submissions for consent of PID, PA, PHP are awaiting confirmation of Tramstop furniture to enable a single submission. Meeting held with identified Tramstop supplier 22 September 2009. Ticket Vending Machine details which will be required to obtain consents (free issue from TEL) have not been provided No change.

Radio FAT undertaken successfully.

Joint FAT of CAF and Siemens for TPDS onboard computer and radio equipment will be carried out by end of October 09 and early November 09.

Issues and Concerns

Delays to Site availability. Lack of confirmation from *tie* of third party agreements for radio base stations continues to delay progress
Same general comment as for OLE above (mitigation strategy in procurement).

Production

TPDS detector earth box equipment for all road junctions in Princes Street where MUDFA works have not prevented, (15 units) have been installed.

Further 129 TPDS detector earth boxes, 220 TPDS antennae and all TPDS loop cables have been delivered to Edinburgh in accordance to the valid works programme.

Motorized point machines have been manufactured and delivered in October 09, despite the non availability of the Site.

Note: Potential risk of extended storage, expiration of manufacturer warranties, obsolescence of electronic items, risk of theft, loss or damage of the delivered equipment will be attributed to the ongoing EOT discussions.

Demonstration PID display in Project office.

Radio equipment fitment on trams by CAF has commenced.

4.2.6 TLC (Traffic Light Control)

General

Advance instruction for the TLC works associated with Junctions 32,27,28,29 has now been received from *tie* to enable TLC mobilisation within Princes St. No instruction relating to mobilisation of additional Princes St locations has been received. The value of this change order will be deducted from the final agreed value associated with Traffic Controls provisional sum.

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All street equipment is currently in manufacture and or procurement. All street equipment scheduled for delivery on 5 November. Mobilisation and installation scheduled to commence 9 November.

Design

IDC underway for junctions covered under advance instruction above.

ELV Tram signal heads in development. Due for environmental testing December 09.

Approvals and Consents

Awaiting approval of main contract

Issues and Concerns

No current Issues to date to report.

In order to mitigate possible delays to the re-opening of Princes St to vehicles prior to 29 Nov deadline, order cover will be required to cover the expected commissioning of Junction 41 – Charlotte St / Princess St. TLC has pre-ordered all Street equipment to cover this works prior to order receipt as not to delay.

Production

No current issues, except those under “General” above.

4.2.7 HV/LV - Supply

Design

No comments

Approvals and Consents

Third parties, outside LOD, way leaves are in progress.

Issues and Concerns

Clarification on approach in light of delays to preceding site works, specifically Gogar Depot. Same general comment (mitigation strategy in procurement) as for OLE above.

Lack of confirmation of Electricity supplier preventing progress with location of meters.

Production

Trench work for Gogar supply, outside LOD has commenced
See issues and concerns.

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4.3 TRAMS

4.3.1 Design

Detailed design is finished except regarding the Bus tracker, equipment to be delivered by *tie*.

Free issue equipment to CAF:

This definition refers to:

- TPDS and Radio supplied by Siemens
- Bus Tracker supplied by *tie*

The last official information delivered by tie's supplier was received by CAF in December 2008. CAF has made the design according to this information.

4.3.2 Procurement

Procurement for the trams is going according to programme.

4.3.2.1 Delivery of Materials

According to CAF manufacturing needs, all equipment for the first tram should be available at CAF premises in Irun by mid April.

One set of the Bus Tracker equipment was received at the factory of CAF during summer 2009. Nevertheless, the material received does not match the official information given by the tie's supplier in December 2008. CAF can not install the material received and will wait until further information is delivered.

Regarding Free Issue Equipment, CAF will evaluate the impact and will let the supplier know of any material which is not delivered as it is necessary to meet manufacturing targets.

4.3.3 Manufacturing

CAF manufacturing process started at beginning of December 2008. The status is detailed on document "Estado fabricación Edimburgo 20_10_2009-Status".

Trams No 3, 4 and 5 are in the finishing area and all modules but one of tram No 6 are also in the finishing area.

Trams No1 and 2 have left the finishing area to go to the testing area.

4.3.4 Testing

Tests on the tram No 1 are being performed at the test bay and are due to be finished by mid December in order to send the unit to an external test track for dynamic tests.

Tests for tram No 2 have already started.

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CAF intends to install and test all systems on the different phases of the testing process (CAF premises, Test Track and Edinburgh Tram Network), including Free Issue Equipment delivered by Siemens (TPDS and Radio) and Bus Tracker (*tie*).

With the material and information available today it will be possible neither to install nor to test the Bus Tracker in CAF.

Test Protocols for all systems, including Free Issue Equipment, must be received by CAF in order to be sent to *tie* for review

4.3.5 Delivery of Trams to Edinburgh

According to the programme, the dynamic tests for the tram No 1 will be achieved by mid March 2010. Similarly, the dynamic tests for the tram No 2 will be achieved by mid April 2010.

CAF will fulfil its contractual commitments for delivery.

The first tram ready to be delivered into Edinburgh will be Tram No 3. This tram shall be available in February 2010. From that date onwards, CAF will be able to ship an average of initially, two and later, three trams each month.

4.4.1 EMC

4.4.1.1 Earthing & Bonding

Clarification of individual civil structures is ongoing.
Where it has not been practicable to timely incorporate E&B measures to SDS IFC Design (e.g. in Princes Street), they are being issued as CVI, incorporated into BSC's pre-pouring QC checklists, and shall be included in the final as-built drawings.

E&B of TSS has been elaborated basing on current civil design including depot TSS.

4.4.1.2 Stray Current

Code of Practice, Stray Current Strategy and Stray current corrosion study have been revised.
Submissions are forthcoming.

4.4.1.3 Network Rail Immunisation

Verification of immunisation calculation has been carried out by Atkins (Tim Green).
Allocation of NR track circuits to ETN chainage has been carried out.
Revision of Immunisation calculation is ongoing.
Immunisation Hazard workshop has been carried out in Edinburgh. Please refer to chapter 4.4.2.2 as well.

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4.4.2 System Assurance

4.4.2.1 Deliverables / Documents issued:

- with Tram Traction packs and telecoms in respect to Immunisation, Report issued for comments.

4.4.2.2 Activities completed

- Immunisation –
 - HAZID Workshop, to identify EMC hazards associated with Tram Traction packs and telecoms in respect to Immunisation, Report issued for comments
 - Supplier Selection completed for Immunisation works to carry out design and modification to NR Track Cct's as specified in Immunisation Calculations.
- HFI (OCC) Task Analysis meeting held at Edinburgh Park with *tie*, Transdev, RA and CCD Ergonomics, 06 & 07 October.
- Audit, Safety Assurance, Civils and Track

4.4.2.3 Activities Ongoing and Planned:

- Hazard Log Management –
 - Update and manage Hazard Log based on Hazard owner's responses (ongoing). Based on mitigation provided by the Hazard owner the *tie* PSCC will review the hazard, rank the hazards' residual risk and confirm the if the hazard has been controlled so Far As Is Reasonably Practicable (SFAIRP) (Target Date ongoing)
 - Progress Handover of Hazard Log from SDS / agree mitigation arguments in SDS Hazard Log. SDS to supply all hazard mitigation and close out arguments by 20 November 2009. Meeting of PSCC Sub Committee planned for 30 Nov / 02 Dec to review and close out SDS owned hazards to allow formal handover of hazard log to BSC. This meeting was cancelled due to failure of SDS to deliver required information as agreed. SDS agreed revised delivery date of Hazard Log info by 20/11/09.
- HFI – Workshops planned with CCD (HFI supplier) at Edinburgh, 03/04 and 24/25 November, to continue HFI assessment of OCC
- Commence as part of the IDR / IDC process Hazard Analysis Work Shops as per Detailed Design Assurance Plan (DDAP). Briefing document has been issued for review .The objective is to ensure that a complete set of risks / hazards is has been identified and managed. Meetings being organised with Hazard Owners to review Hazards and confirm mitigation measures.

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- Immunisation –
 - HAZID Workshop, to identify EMC hazards associated with Tram Traction packs and telecoms in respect to Immunisation, update and formally issue report
 - DC Track Cct, WSF Signalling Failure, Risk Assessment (QRA). Continue to write report and issues to Atkins for review.
 - Design mitigation now being supplied with objective of being able to close hazards from a design perspective.
 - Progress with chosen supplier design and installation for modifications to Network Rail Track Circuits in the Edinburgh area
 - A presentation is planned to the Network Rail Infrastructure Systems Review Panel (ISRP) a 'Case For Safety' to demonstrate that the two work streams that we have undertaken above have minimised the risk to the Network Rail Infrastructure ALARP. This document is due in fourth quarter of 2009.

4.4.2.4 Regular activities and attendances:

- As well as the above a number of other activities are ongoing such as regular attendance at the following meetings; PSCC, PSCC Sub-Committee, Technical Coordination, Requirements Man, SCWP.

4.5 TESTING, COMMISSIONING AND START-UP

A Siemens Testing & Commissioning Manager is being sourced out of the UK Market by the spring of 2010. The exact date could be accelerated or postponed, as a mitigation measure, depending on actual Programme progress.

5 NOT USED

6 STAKEHOLDER AND THIRD PARTY ISSUES

No further Discussions have been held on the subject to agree how *tie's* existing Stakeholder Management and Communications team can be best used to mutual advantage. BSC are willing in principle to contribute in kind or cost transfer to supplement this team, rather than duplicating resources to comply with the specific requirements of the Employer's Requirements as drafted.