7.2 Key Issues

7.2.1 Railway Corridor

Sheet piling works continued utilising an alternative methodology along the Murrayfield corridor. These works are required to enable access for the ground improvement works. As the sheet piling operations have advanced, movement of Network Rail overhead line masts have been recorded by the monitoring team. Works ceased adjacent to the area where movement has occurred while the overhead line equipment, embankment and track were inspected by Siemen's Competent Responsible Engineer and the Temporary Works Designer.

The monitoring points on the embankment were adjusted as localised topsoil movement caused trigger levels to be reached. Agreement was reached with Network Rail that their infrastructure was safe and new trigger levels established for the overhead line equipment. These works have now been completed.

The movement that has occurred in the ScotRail depot is continuing to be monitored and preengaging of sheet pile installations is being carried out to minimise any vibration affects.



Scotrail Depot: Concrete slabs have separated due to sheet piling, this can be seen by the gap in the joint between the slabs.

The subcontractor who had been chosen by Infraco to undertake the Ground Improvement works is no longer trading. Infraco are in discussions with another company to undertake these works. This has already delayed the start date as stated within the Rev 5 programme.

7.2.2 Airport

On the 11th of May 2012 Infraco and Turner & Townsend attended a meeting with BAA to understand the concerns that the airport have in relation to Eastfield Avenue road and pedestrian crossings.

At this meeting BAA expressed their concerns over the gradients on both the road and pedestrian crossing and that they feel they are being left with a legacy issue. The pedestrian crossing has a steep gradient falling from east to west and would appear not to be DDA compliant.

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Infraco have advised that they believe the design to be compliant and that construction is in accordance with an approved design. No evidence has been provided to support this.

Infraco have developed an improved solution to the pedestrian crossing however, this to have a gradient in excess of the maximum permitted within CEC & DfT guidance. No departures from this were applied for by Infraco.

A meeting has taken place between Colin Smith (CEC), Kevan Jameson (BAA) and Shirley Mushet (T&T) to present the foot path proposal. Kevan Jameson has stated he would review the revised design; however Kevan's initial reaction was this would not fulfil the Airport's expectations, as the gradient would still be to steep.





Photos: Eastfield Avenue Pedestrian and Road Crossing

7.2.3 Haymarket Interface

Network Rail's Project team have raised concerns over the line of the tram drainage being within the Haymarket Car Park. The drainage is within the Limit's of Deviation and was installed in accordance with the Asset Protection Agreement.

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7.2.4 Scottish Water

Lochside Avenue clean water twin crossing, previously installed under MUDFA, is to be replaced in order to satisfy Scottish Water concerns over the proximity of red blaes.

7.3 Look Ahead

- Retaining wall construction continuing along the Gogar Burn.
- Earthworks at Ingliston Park and Ride following the completion of the SGN diversion.
- Continuation of Lochside Avenue crossing and Edinburgh Park Corridor
- Bankhead Drive earthworks and drainage are continuing.
- Balgreen Road Bridge removal continuing.
- Water of Leith continuing with the west abutment formation.
- Ground Improvements commencing on Murrayfield Corridor S21B and S21C. (This is subject to subcontractor discussions).
- Continuation of the cladding works on Haymarket Viaduct.
- Network Rail mobilisation of their Haymarket station works teams.
- Fit out of Haymarket substation.

8 Trams

8.1 Progress in Period

Testing and Commissioning is now progressing smoothly and in accordance with the procedures developed by Turner & Townsend and CAF. Testing efficiency is now being addressed to allow a reduction in the requirement for Tram Inspector attendance in Edinburgh and therefore a reduction in testing cost.

Fourteen trams have now been delivered to Gogar Depot, with ten trams having been issued with Interim Tram Routine Test Certificates. One additional certificate will be issued imminently following on the completion of rectification work requested by the Tram Inspector.

8.2 Key Issues

The process for the valuation of Milestone Payment requirements has been agreed, with evidence requirements now being determined monthly in advance. An agreement has been reached between Turner & Townsend and CAF that no milestone payment application will be made until all required evidence has been provided.

The two technical issues identified during the previous period have been progressed, as detailed below.

- CAF have addressed the issue relating to the incorrect positioning of DSD and Horn pedals and have issued a report following an investigation into the cause of the issue. Turner & Townsend are currently seeking clarification on some items raised by the report.
- The immediate cause of the detachment of a roof panel on tram #252 has been identified and the defect has been rectified. A fleet check on all other trams identified that the issue was local to this tram only. CAF are currently checking the security of roof panels on all trams prior to their operation within the Depot and Mini Test Track, with a technical investigation into the root cause now underway.

Turner & Townsend are currently developing an Engineering Change process with CAF and ETL, to manage the identification, investigation and rectification of issues, such as the roof panel detachment, identified during tram operation. This procedure will allow compliance with the ROGS responsible person's requirements in relation to the management of technical change. The procedure will be developed to cover all trams at Gogar Depot and may also form the basis of an Engineering Change procedure for the facility.

Lothian Buses are currently confirming the procurement situation and Preferred Bidder status for Ticket Vending Machines with CEC, with a decision in expected imminently. The specification of the functional requirements are to be completed before equipment can be procured.

The modification to the Tram Wash Plant to ensure that all areas are washed is now underway. The work is expected to be completed at the end of May 2012, with testing completed in early June 2012.

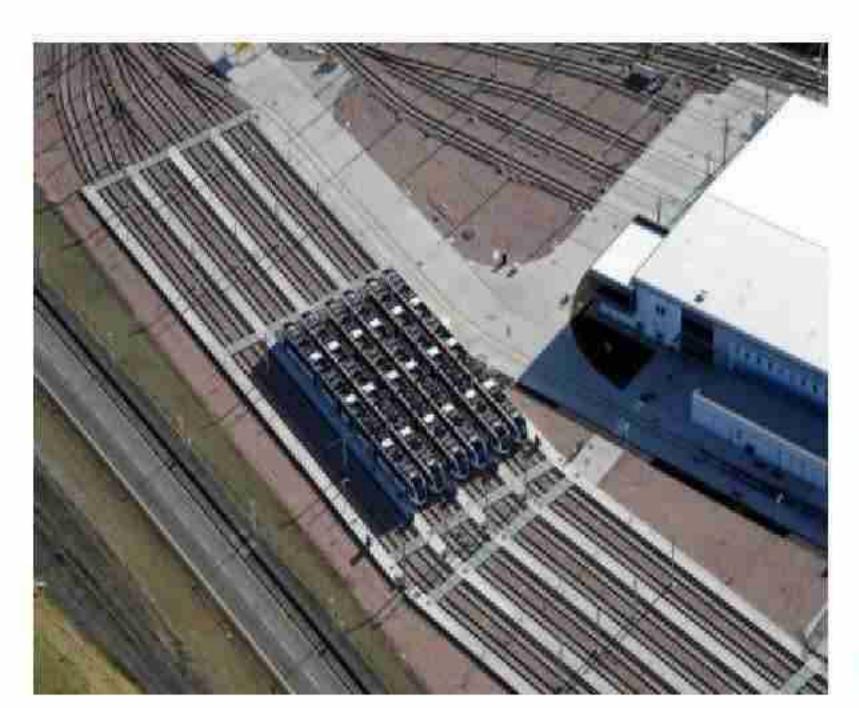
8.3 Look Ahead

Tram Delivery, Test & Commissioning:

The BBS Systems Integration Plan and Section B completion programme have now been received. Turner & Townsend have collated comments from all stakeholders and will facilitate a workshop on 28th May 2012, to allow all stakeholders to have an understanding of each other's test and commissioning requirements and form an agreement on roles and responsibilities.

There are three trams due to be delivered to Gogar Depot in the next period slightly ahead of schedule, however there may be a reduction of trams delivered over the summer months. The delivery date for the final tram remains at 12th December 2012.

There are four trams scheduled to complete Routine Testing on the Mini Test Track in the coming period.







9 Assurance

9.1 Progress in Period

A Safety Verification Audit was carried out for Section 5 during this period (17th of May 2012). This audit considered the Safety Verification associated with the Bankhead Substation pre-electrification. A report is currently under internal review and will be issued during the coming period.

On the 16th of May 2012, the mini test track was successfully handed over from BBS to CEC. The operator has provided a Disposition Statement relating to their responsibilities, since they have taken control of the mini test track from CEC. This process has clarified the role and responsibilities of all a parties, during the on going tram testing and contract works.

An ICP Liaison meeting was held on the 9th of May 2012 during the meeting BBS presented the Requirements Management progress and methodology. In addition the Tram Reversing Strategy was discussed. The Independent Competent Person noted that he was satisfied with the material he was presented with.

The Owner controlled Insurance programme (OCIP) risk surveyor visited the project on the 9th May 2012. Following a general project presentation at Edinburgh Park, they visited Broxburn storage depot and various site locations. The visit when well with no significant findings raised. The OCIP inspection report is due in early June 2012

There are 12 depot snags still open including one to be monitored against satisfactory resolution during June 2012. BBS are currently actively closing the other items, including:

- Castell key sockets modification, This has been carried out however further work is now required..
- Water ingress to the wheel lathe, initial works completed however further water ingression is now present.
- Sealing of Depot shed door, Tie Notice of Change has been issued to BBS.
- Work shop tool air supply piping, Tie Notice of Change has been issued to BBS.
- Depot pit drainage resolution, has now been agreed between CAF and Lothian Buses.

9.2 Quality

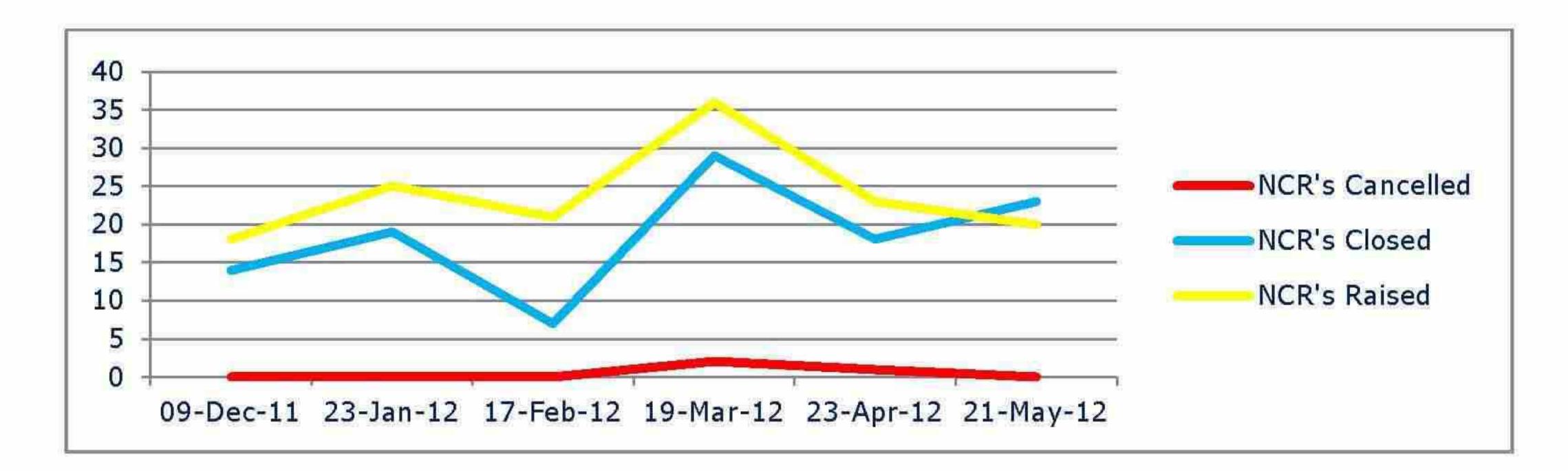
The number of NCRs raised to date is 505. 20 NCRs were raised during the period and 23 NCRs were closed out during the period.

11 no open NCRs are greater than 6 months old. Details may be found within Section 6 of Deliver a Safe Tram (See Appendix 2)

A formal response has been received from BBS regarding the quality issue of the concrete / railhead level interface in Princes Street. A level survey has been undertaken and BBS have advised that the levels will not impact on the safe operation of the tram. A Road Safety Audit Stage 3 is to be undertaken to verify that the no unacceptable risk is imported to the road users.

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Non conformances





Appendix 1 - Dashboards

Produced by	Julian Weatherley & Shirley-Anne Collin	SECTION		MMARY DASHBOARD	Employer	City of Edinburgh Council Waverley Court, Edinburgh,EH8	
Approved by	Julian Weatherley	Issue By:	and the second s	Townsend Project Manag Lochside Avenue, Edinbu	Address	8BG	
Status	FINAL	Issue Date	31-05-2012	REPORTING PERIOD	29 th April to 26 th May 2012	Project:	Edinburgh Tram Network

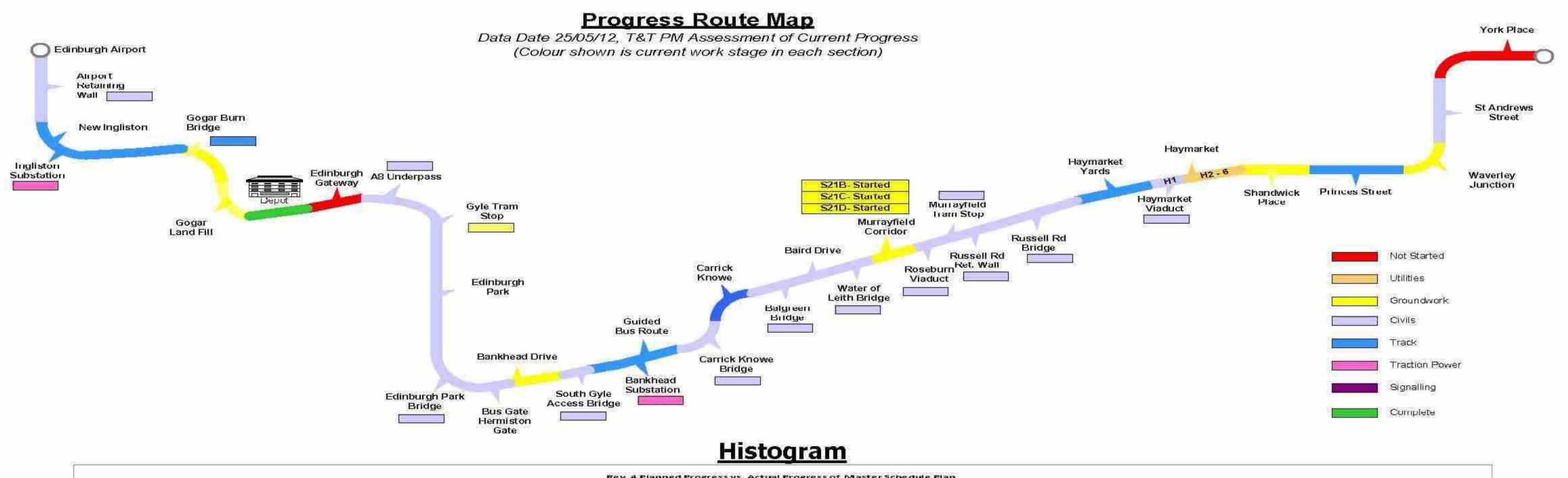
Executive Summary

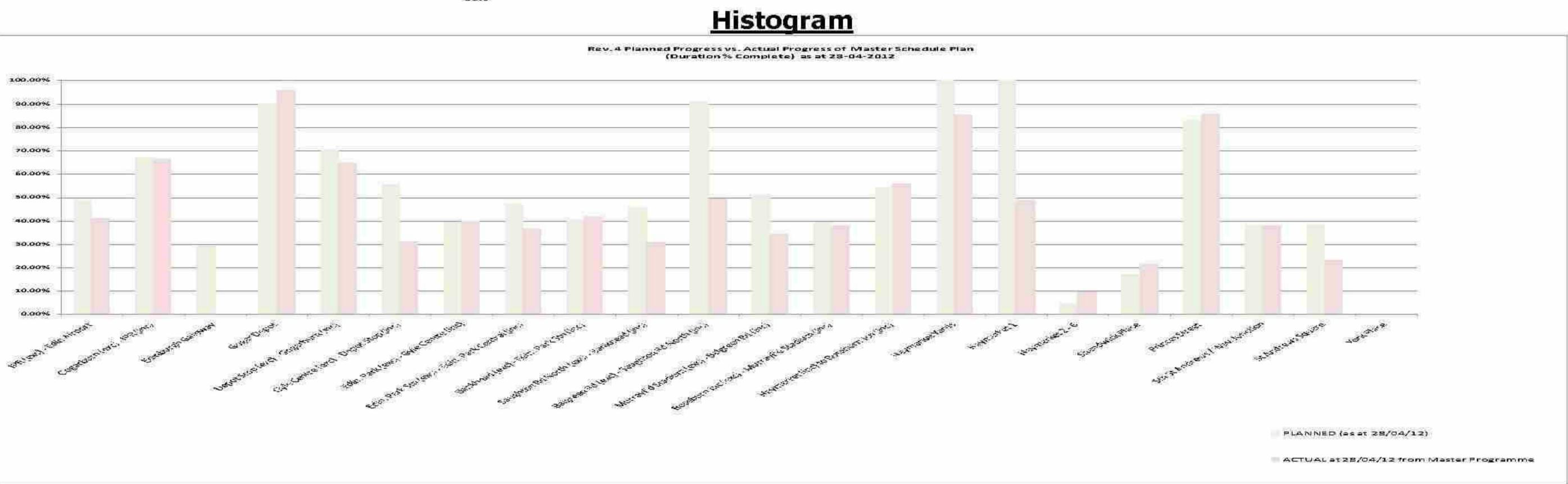
- 1. There were 14 incidents recorded during the period. Two incidents were identified as Serious / Significant.
- 2. An investigation is currently ongoing to determine the cause of one of these, a sewer collapse at Grosvenor Street.
- 3. A number of actions have been implemented in response to the concerns raised last period over McNicholas' health and safety practices. McNicholas have responded positively to the issues raised and an improved position is now in place.
- Discussions continue between Infraco and SEPA in relation to soil removed from Baird Drive. Further
 information is to be provided by Infraco to enable conclusion.
- Thirty eight days of the 22 week time bank have been confirmed as being eroded. Further erosion has occurred during the reporting period.
- Infraco have submitted their Rev5 programme for approval and a number of clarifications have been sought prior to acceptance.
- Significant progress has been made in relation to the planning of York Plack utilities works in support of early access to this area by Infraco.
 McNicolas have been continuing with the excavation for tram box construction and the installation of
- drainage in order to mitigate against disruption to the On Street Infraco works programme.

 A number of Scottish Water logacy issues within the On Street section have been identified for which a
- 9. A number of Scottish Water legacy issues within the On Street section have been identified for which a compliant solution is unachievable. Scottish Water have been advised of the limitations of the scope of works that project will undertake.
- 10. Following the collapse of an existing sewer within Grosvenor Street the area of collapse has been excavated and surveyed. Turner & Townsend are preparing a report into the causes of the collapse. Reinstatement of the sewer is anticipated by the 15th of June 2012.
- 11. The progression of Infraco Works through Haymarket, Shandwick Place and St Andrew Street has been disrupted as a result of tram ducting clashes with utilities. The extent of disruption to the critical path is currently being assessed.
- 12. A solution for the Edinburgh Gateway slope retention has been confirmed as a king post design. Infraco have now advised (though the Rev 5 programme) that these works control the critical path of the Off Street works.
- 13. The works to the SGN gas main diversion were completed on programme on the 18th of May 2012.
- 14. The progression of sheet piling works through the Murrayfield Corridor has been completed despite ongoing disruption resulting from ground movements.
- BAA have raised concerns over the constructed levels of the Eastfield Avenue road crossing. CEC are in discussions with BAA over a resolution.
- 16. Fourteen trams have now been delivered to the depot.
- 17. The draft QSRA/QCRA has been discussed with CEC and further meetings will take place to update the QCRA each period and the QSRA quarterly.

CEC Actions / Decisions

- Haymarket wayleave Close out of the wayleave with Scottish Power and Network Rail
- Haymarket build over agreement. Close out the Scottish Water build over agreement at Haymarket
- 3. Asset Protection Agreement Close out of Asset Protection Agreement with Network Rail.
- Airport tram stop design CEC to confirm that they are satisfied with infraco progressing the design for the airport tram stop.
- Bus tracker. Decision to be made on whether Bus Tracker equipment is to be fitted to trams.
- 6. York Place Final confirmation of approach to programme at York Place.
- 7. Dublin Street steps Support in obtaining permissions at Dublin Street Steps.
- Advance purchase of equipment Definition from Transport Scotland on equipment to be advanced purchased for Edinburgh Gateway and subsequent approval from CEC.
- Ticket Vending Machines bidder. Decision required on procurement process and Preferred Bidder status for Ticket Vending Machines.
- Tram stop equipment:- Conformation of CEC's preferred timescales for installation of tramstop equipment.

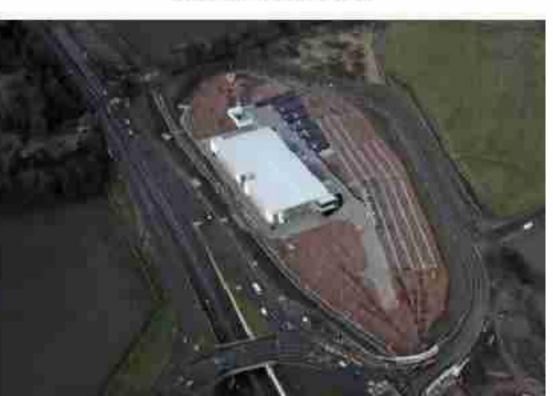


























Produced by	Julian Weatherley & Shirley-Anne Collin	SECTION		MMARY DASHBOARI	Employer	City of Edinburgh Council Waverley Court, Edinburgh,EH8	
Approved by	Julian Weatherley	Issue By:		Townsend Project Mana Lochside Avenue, Edinbu	Address	8BG	
Status	FINAL	Issue Date	31-05-2012	REPORTING PERIOD	29 th April to 26 th May 2012	Project:	Edinburgh Tram Network

				KEY MILESTO	NES		
		A	В	B-A=C			
Section	Description	Rev 4 Schedule Date	Fore cast/ Actual Date	Var. (d's)	Completed	Crit. Path	Comments
Section Complet				-			
ALL	Section A; Depot complete Section B; Test Track complete	16-Dec-11 08-Mar-13	16-Dec-11 08-Mar-13	0		Υ	Complete 12d recovered through revised logic of Tamping and OHLE works
ALL	Section b, rest mack comprete	Oo-IVIAI -13	OO-IVIAI-13	, C			Potential for improvement to York Place construction times cales,
ALL	Section C; All construction complete	09-Apr-14	10-Mar-14	-30		Y	resdulting it improved Sectional Completion Dates. Changes are yet to be agreed with CEC and BBS. Potential for improvement to York Place construction times cales,
ALL	Section D; open for revenue	08-Jul-14	09-Jun-14	-29		* Y	resdulting it improved Sectional Completion Dates. Changes are yet to be agreed with CEC and BBS.
On Street Haymarket							
On-Street	Haymarket 1 Complete	04-Apr-12	29-Aug-12	147		N	Further delay to H1 due to Scottish Water manhole and drainage connection issues. N.B. Delay to H1 completion does not affect overall project completion date.
On-Street	Haymarket Phase 2 Utilities Work Complete	N/A	08-Jun-12	N/A		N	All Haymarket Utilities works to be carried out in advance of construction works.
On-Street	Haymarket Civils Works for all Phases Complete	23-Jul-13	16-Apr-13	-98		N	Master Schedule (inclusive of Utility diversion Works) projecting tim saving due to cost Engineering Initiatives. Savings not yet agreed with INFRACO. Discussions ongoing.
Shandwick Place	Shandwick Place Phase 1 - Civils Works						
On-Street	Complete	17-Jul-12	01-Aug-12	15		N	
On-Street	Shandwick Place Tram Stop Complete	17-May-13	29-Apr-13	-18		N	Whilet Mostor Schodul of inclusive of Hillity diversion Works) is
On-Street	All Shandwick Place Civils Works Complete	15-Nov-13	03-Sep-13	-73		0.1(2)=0	Whilst Master Schedule(inclusive of Utility diversion Works) is projecting time saving due to Cost Engineering Initiatives these saving not yet agreed with INFRACO. Discussions ongoing.
<u> </u>	St Andrews St North St Andrews Square Civils Complete (Phase 1 -	d Assertation Of					Delay as a result of late handover of site to Infraco and ongiong
On-Street	Inbound)	14-May-12	18-Jul-12	65			disruptin resulting from drainage redesign.
On-Street	All St Andrews Square Civils Complete ws St / Waverley Junction	15-Oct-12	15-Oct-12	0		N	Evaluation of emerging utilities delays is currently ongoing. To be confirmed following discussions with BBS.
On-Street	South St Andrews/Waverley Junction St. Civils	04-Jul-12	04-Jul-12	O		Y	Evaluation of emerging utilities delays is currently ongoing. To be
UPSTS AASHAL SI	Complete (Phase 2 - Outbound) All South St Andrews/Waverley Junction St.	ATHERES NAMED IN PROJECT	AND REC. ISAN. IS ISANA	O		V	confirmed following discussions with BBS. Evaluation of emerging utilities delays is currently ongoing. To be
On-Street York Place	Civils Complete	15-Oct-12	15-Oct-12	U			confirmed following discussions with BBS.
On-Street	Complete Demolition of Cathedral Lane Toilet	N/A	06-Jul-12	N/A		Y	Works progressing on or ahead of programme
SANO IZINING SANO:	Block		DESCRIPTION FORSE	C-CAPACITAC.		186365	
On-Street	Complete Critical Ducting at Cathedral Lane	N/A	07-Jul-12	N/A			Works progressing on or ahead of programme
On-Street	Start York Place Utility Moves	N/A	29-Oct-12	N/A		≥ V ⊙	Potential early access for advanced utilities works on 16th Jul. Pendi approval by CEC and other Stakeholders. Could be completed earlier dependant upon CEC agreement. Potential
On-Street	York Place Utility Moves Complete	N/A	08-Mar-13	N/A		Y	SAS-Elder St. by 27 Aug. remainder to follow by 12 Oct Would also be increased scope to include Track box ducts and drainage.
On-Street	Start York Place Civil Works	24-Oct-12	15-Mar-13	142		· V	Planning of works currently being developed to mitigate this delay through completing utilities works early.
On-Street	York Place Civils Works Complete	11-Nov-13	12-Sep-13	-60		Y	This is dependant on the agreement of a revised completion date for S Andrews Square and South St Andrews St / Waverley Junction.
Princes Street On-Street	Princes St re-opened to South St David St.	05-Jul-12	30-Jun-12	-5		1010	Detailed Handover programme for Princes St now agreed with BBS. Th
		03-341-12	30-Jun-12	1000 1000		IN.	includes completion of Setts at Tram Stop.
	Princes St Tram Stop Complete	04-Oct-12	27-Sep-12	-7		IN.	includes completion of Setts at Tram Stop.
M&E Installation		TOWNS ON CHARLE	ATTECH TOTAL CO. D. C.	1945		N.	includes completion of Setts at Tram Stop.
M&E Installation On Street Off Street	ns .	04-Oct-12	27-Sep-12	=7		Y	Rev5 to be agreed upon with BBS and should be revising logic of work
M&E Installation On Street Off Street Off-Street	Commence Princess Street E&M works	04-Oct-12 19-Oct-12	27-Sep-12 07-Nov-12	19		N	Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Sheet Piling Commenced 16th April Problems with Sheet Piling causin movement to NR OHLE mast. Subsequent delay in works has been
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M&E Installation On Street Off Street Off-Street Off-Street	Commence Princess Street E&M works Forecast completion of AIR-HAY route Murrayfield ground improvements Complete Haymarket Yards Complete	04-Oct-12 19-Oct-12 21-Aug-13 25-Mar-12 27-Feb-12	27-Sep-12 07-Nov-12 29-Oct-13 14-Jun-12 02-Jul-12	-7 19 69 81 126		N	Rev5 to be agreed upon with BBS and should be revising logic of works and subsequent completion dates through this corridor Sheet Piling Commenced 16th April Problems with Sheet Piling causin movement to NR OHLE mast. Subsequent delay in works has been experienced due to NR. Delay accom'd within float, no effect on forecast completion of AIR-HA route
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M&E Installation On Street Off Street Off-Street	Commence Princess Street E&M works Forecast completion of AIR-HAY route Murrayfield ground improvements Complete Haymarket Yards Complete South Gyle Beam Installation Complete Water of Leith Bridge Complete W4, 19-29; Russell Rd. Retain Complete \$21A Roseburn St. Complete \$22A Balgreen Road Bridge Complete Gyle Tram Stop Complete cilities Reinf'd Earth Embank't Gogar Landfill Complete Eastfield Avenue Complete Ingliston Gas Mains Diversion Construction	19-Oct-12 21-Aug-13 25-Mar-12 27-Feb-12 11-Jul-12 31-Aug-12 29-Oct-12 19-Sep-12 18-Sep-12 23-Apr-13	27-Sep-12 07-Nov-12 29-Oct-13 14-Jun-12 02-Jul-12 19-Aug-12 13-Dec-12 21-Dec-12 08-Nov-12 29-Jan-13 13-Jun-13	19 69 81 126 39 104 53 50 133 51		N N N	Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Sheet Piling Commenced 16th April Problems with Sheet Piling causin movement to NR OHLE mast. Subsequent delay in works has been experienced due to NR. Delay accom'd within float, no effect on forecast completion of AIR-H route Road Closure has been booked for 5 Aug to place bridge beams Delay due to reverting back to original construction methodology in lieu of design for ground improvements. However, ongoing review of construction programme, in conjunction with BBS, may result in improvement to to current forecast. Sheet Piling Commenced however Problems with Sheet Piling causing movement to Scotrail Structures. Full impact still to be determined. Delay accom'd within float, no effect on forecast completion of AIR-H route Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Delay accom'd within float, no effect on forecast completion of AIR-H route Complete Complete Farrans have commenced wks in conclusion to SGN Diversion. SGN st to rectify snagging point (6m of conc protection) but this does not
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M&E Installation On Street Off Street Off-Street Depot & Test facilities Depot & Test	Forecast completion of AIR-HAY route Murrayfield ground improvements Complete Haymarket Yards Complete South Gyle Beam Installation Complete Water of Leith Bridge Complete W4, 19-29; Russell Rd. Retain Complete \$21A Roseburn St. Complete \$22A Balgreen Road Bridge Complete Gyle Tram Stop Complete cilities Reinf'd Earth Embank't Gogar Landfill Complete Eastfield Avenue Complete Ingliston Gas Mains Diversion Construction Complete A8 Underpass Completion & Traffic Back	19-Oct-12 21-Aug-13 25-Mar-12 27-Feb-12 11-Jul-12 31-Aug-12 29-Oct-12 19-Sep-12 18-Sep-12 23-Apr-13 16-Mar-12 N/A 13-Jun-12	27-Sep-12 07-Nov-12 29-Oct-13 14-Jun-12 02-Jul-12 19-Aug-12 13-Dec-12 21-Dec-12 28-Nov-12 29-Jan-13 13-Jun-13 24-May-12 28-Apr-12 18-May-12	19 69 81 126 39 104 53 50 133 51 69 67 N/A -49		X X X X X X X X X X X X X X X X X X X	Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Sheet Piling Commenced 16th April Problems with Sheet Piling causin movement to NR OHLE mast. Subsequent delay in works has been experienced due to NR. Delay accom'd within float, no effect on forecast completion of AIR-Hirotute Road Closure has been booked for 5Aug to place bridge beams Delay due to reverting back to original construction methodology in lieu of design for ground improvements. However, ongoing review of construction programme, in conjunction with BBS, may result in improvement to to current forecast. Sheet Piling Commenced however Problems with Sheet Piling causing movement to Scotrail Structures. Full impact still to be determined. Delay accom'd within float, no effect on forecast completion of AIR-Hirotute Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Delay accom'd within float, no effect on forecast completion of AIR-Hirotute Complete Complete Farrans have commenced wks in conclusion to SGN Diversion. SGN stito rectify snagging point (6m of conc protection) but this does not impact on Farrans. Complete
M&E Installation On Street Off Street Off-Street Depot & Test facilities	Forecast completion of AIR-HAY route Murrayfield ground improvements Complete Haymarket Yards Complete South Gyle Beam Installation Complete Water of Leith Bridge Complete W4, 19-29; Russell Rd. Retain Complete \$21A Roseburn St. Complete \$22A Balgreen Road Bridge Complete Gyle Tram Stop Complete cilities Reinf'd Earth Embank't Gogar Landfill Complete Eastfield Avenue Complete Ingliston Gas Mains Diversion Construction Complete A8 Underpass Completion & Traffic Back Gogar Burn Tram Stop Complete	19-Oct-12 21-Aug-13 25-Mar-12 27-Feb-12 11-Jul-12 31-Aug-12 29-Oct-12 19-Sep-12 18-Sep-12 23-Apr-13 16-Mar-12 21-Feb-12 N/A 13-Jun-12 17-Oct-12	27-Sep-12 07-Nov-12 29-Oct-13 14-Jun-12 02-Jul-12 19-Aug-12 13-Dec-12 21-Dec-12 29-Jan-13 13-Jun-13 24-May-12 28-Apr-12 18-May-12 18-Sep-12	-7 19 69 81 126 39 104 53 50 133 51 69 67 N/A -49 -29		N N N N N N N N N N N N N N N N N N N	Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Sheet Piling Commenced 16th April Problems with Sheet Piling causin movement to NR OHLE mast. Subsequent delay in works has been experienced due to NR. Delay accom'd within float, no effect on forecast completion of AIR-Horoute Road Closure has been booked for 5Aug to place bridge beams Delay due to reverting back to original construction methodology in lieu of design for ground improvements. However, ongoing review of construction programme, in conjunction with BBS, may result in improvement to to current forecast. Sheet Piling Commenced however Problems with Sheet Piling causing movement to Scotrail Structures. Full impact still to be determined. Delay accom'd within float, no effect on forecast completion of AIR-Horoute Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Delay accom'd within float, no effect on forecast completion of AIR-Horoute Complete Complete Complete Farrans have commenced wks in conclusion to SGN Diversion. SGN st to rectify snagging point (6m of conc protection) but this does not impact on Farrans. Complete Long lead item's dates are confirmed. Duration of Tamping has been
M&E Installation On Street Off Street Off-Street Depot & Test facilities	Forecast completion of AIR-HAY route Murrayfield ground improvements Complete Haymarket Yards Complete South Gyle Beam Installation Complete Water of Leith Bridge Complete W4, 19-29; Russell Rd. Retain Complete \$21A Roseburn St. Complete \$22A Balgreen Road Bridge Complete Gyle Tram Stop Complete Cilities Reinf'd Earth Embank't Gogar Landfill Complete Eastfield Avenue Complete Ingliston Gas Mains Diversion Construction Complete A8 Underpass Completion & Traffic Back Gogar Burn Tram Stop Complete Tamping Ballast Section 7A Complete	19-Oct-12 21-Aug-13 25-Mar-12 27-Feb-12 11-Jul-12 31-Aug-12 29-Oct-12 19-Sep-12 18-Sep-12 23-Apr-13 16-Mar-12 21-Feb-12 N/A 13-Jun-12 17-Oct-12 17-Sep-12	27-Sep-12 07-Nov-12 29-Oct-13 14-Jun-12 02-Jul-12 19-Aug-12 13-Dec-12 21-Dec-12 08-Nov-12 29-Jan-13 13-Jun-13 13-Jun-13 24-May-12 28-Apr-12 18-May-12 18-Sep-12 18-Sep-12 18-Sep-12 01-Nov-12	19 69 81 126 39 104 53 50 133 51 69 67 N/A -49 -29 -6		N N N N N N N N N N N N N N N N N N N	Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Sheet Piling Commenced 16th April Problems with Sheet Piling causin movement to NR OHLE mast. Subsequent delay in works has been experienced due to NR. Delay accom'd within float, no effect on forecast completion of AIR-Horoute Road Closure has been booked for 5Aug to place bridge beams Delay due to reverting back to original construction methodology in lieu of design for ground improvements. However, ongoing review of construction programme, in conjunction with BBS, may result in improvement to to current forecast. Sheet Piling Commenced however Problems with Sheet Piling causing movement to Scotrail Structures. Full impact still to be determined. Delay accom'd within float, no effect on forecast completion of AIR-Horoute Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Delay accom'd within float, no effect on forecast completion of AIR-Horoute Complete Complete Complete Farrans have commenced wks in conclusion to SGN Diversion. SGN st to rectify snagging point (6m of conc protection) but this does not impact on Farrans. Complete Ahead of Schedule Long lead item's dates are confirmed. Duration of Tamping has been reduced which has mitigated impact to Section B completion date. Revised logic of Tamping Finish date and OHLE works in conjunction with this has switched CP to Track civils/Systems and Signalling works.
M&E Installation On Street Off Street Off-Street Depot & Test facilities	Forecast completion of AIR-HAY route Murrayfield ground improvements Complete Haymarket Yards Complete South Gyle Beam Installation Complete Water of Leith Bridge Complete W4, 19-29; Russell Rd. Retain Complete S21A Roseburn St. Complete S22A Balgreen Road Bridge Complete Gyle Tram Stop Complete Cilities Reinf'd Earth Embank't Gogar Landfill Complete Eastfield Avenue Complete Ingliston Gas Mains Diversion Construction Complete A8 Underpass Completion & Traffic Back Gogar Burn Tram Stop Complete Tamping Ballast Section 7A Complete Rail Systems 7A Complete Overhead Catenary Systems 7A Ready for Testing	19-Oct-12 21-Aug-13 25-Mar-12 27-Feb-12 11-Jul-12 31-Aug-12 29-Oct-12 19-Sep-12 18-Sep-12 23-Apr-13 16-Mar-12 21-Feb-12 N/A 13-Jun-12 17-Oct-12 01-Nov-12 19-Nov-12	27-Sep-12 07-Nov-12 29-Oct-13 14-Jun-12 02-Jul-12 19-Aug-12 13-Dec-12 21-Dec-12 08-Nov-12 29-Jan-13 13-Jun-13 13-Jun-13 24-May-12 28-Apr-12 18-May-12 18-Sep-12 18-Sep-12 13-Nov-12	19 69 81 126 39 104 53 50 133 51 69 67 N/A -49 -29 -6 45		X X X X X X X X X X X X X X X X X X X	Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Sheet Piling Commenced 16th April Problems with Sheet Piling causin movement to NR OHLE mast. Subsequent delay in works has been experienced due to NR. Delay accom'd within float, no effect on forecast completion of AIR-H. route Road Closure has been booked for 5Aug to place bridge beams Delay due to reverting back to original construction methodology in lieu of design for ground improvements. However, ongoing review of construction programme, in conjunction with BBS, may result in improvement to to current forecast. Sheet Piling Commenced however Problems with Sheet Piling causing movement to Scotrail Structures. Full impact still to be determined. Delay accom'd within float, no effect on forecast completion of AIR-H. route Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Delay accom'd within float, no effect on forecast completion of AIR-H. route Complete Complete Farrans have commenced wks in conclusion to SGN Diversion. SGN storectify snagging point (6m of conc protection) but this does not impact on Farrans. Complete Ahead of Schedule Long lead item's dates are confirmed. Duration of Tamping has been reduced which has mitigated impact to Section B completion date. Revised logic of Tamping Finish date and OHLE works in conjunction
M&E Installation On Street Off Street Off-Street Depot & Test facilities	Forecast completion of AIR-HAY route Murrayfield ground improvements Complete Haymarket Yards Complete South Gyle Beam Installation Complete Water of Leith Bridge Complete W4, 19-29; Russell Rd. Retain Complete \$21A Roseburn St. Complete \$22A Balgreen Road Bridge Complete Gyle Tram Stop Complete cilities Reinf'd Earth Embank't Gogar Landfill Complete Eastfield Avenue Complete Ingliston Gas Mains Diversion Construction Complete A8 Underpass Completion & Traffic Back Gogar Burn Tram Stop Complete Tamping Ballast Section 7A Complete Rail Systems 7A Complete Overhead Catenary Systems 7A Ready for Testing AIR-Depot Test Track available	19-Oct-12 21-Aug-13 25-Mar-12 27-Feb-12 11-Jul-12 31-Aug-12 29-Oct-12 19-Sep-12 18-Sep-12 23-Apr-13 16-Mar-12 21-Feb-12 N/A 13-Jun-12 17-Oct-12 17-Sep-12	27-Sep-12 07-Nov-12 29-Oct-13 14-Jun-12 02-Jul-12 19-Aug-12 13-Dec-12 21-Dec-12 08-Nov-12 29-Jan-13 13-Jun-13 13-Jun-13 24-May-12 28-Apr-12 18-May-12 18-Sep-12 18-Sep-12 18-Sep-12 01-Nov-12	19 69 81 126 39 104 53 50 133 51 69 67 N/A -49 -29 -6		X X X X X X X X X X X X X X X X X X X	Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor. Sheet Piling Commenced 16th April Problems with Sheet Piling causin movement to NR OHLE mast. Subsequent delay in works has been experienced due to NR. Delay accom'd within float, no effect on forecast completion of AIR-H route. Road Closure has been booked for 5Aug to place bridge beams. Delay due to reverting back to original construction methodology in lieu of design for ground improvements. However, ongoing review of construction programme, in conjunction with BBS, may result in improvement to to current forecast. Sheet Piling Commenced however Problems with Sheet Piling causing movement to Scotrail Structures. Full Impact still to be determined. Delay accom'd within float, no effect on forecast completion of AIR-H route. Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor. Delay accom'd within float, no effect on forecast completion of AIR-H route. Complete Complete Complete Complete Ahead of Schedule Long lead item's dates are confirmed. Duration of Tamping has been reduced which has mitigated impact to Section B completion date. Revised logic of Tamping Finish date and OHLE works in conjunction with this has switched CP to Track civils/Systems and Signalling work. Ahead of Schedule
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M&E Installation On Street Off Street Off-Street Depot & Test facilities Test Facilities Depot & Test Facilities Test Facilities Test & Contract &	Forecast completion of AIR-HAY route Murrayfield ground improvements Complete Haymarket Yards Complete South Gyle Beam Installation Complete Water of Leith Bridge Complete W4, 19-29; Russell Rd. Retain Complete \$21A Ros eburn St. Complete \$22A Balgreen Road Bridge Complete Gyle Tram Stop Complete cilities Reinf'd Earth Embank't Gogar Landfill Complete Eastfield Avenue Complete Ingliston Gas Mains Diversion Construction Complete A8 Underpass Completion & Traffic Back Gogar Burn Tram Stop Complete Tamping Ballast Section 7A Complete Rail Systems 7A Complete Overhead Catenary Systems 7A Ready for Testing AIR-Depot Test Track available	19-Oct-12 21-Aug-13 25-Mar-12 27-Feb-12 11-Jul-12 31-Aug-12 29-Oct-12 19-Sep-12 18-Sep-12 23-Apr-13 16-Mar-12 21-Feb-12 N/A 13-Jun-12 17-Oct-12 17-Oct-12 17-Sep-12 19-Nov-12 08-Mar-13	27-Sep-12 07-Nov-12 29-Oct-13 14-Jun-12 02-Jul-12 19-Aug-12 13-Dec-12 21-Dec-12 08-Nov-12 29-Jan-13 13-Jun-13 24-May-12 28-Apr-12 18-May-12 18-Sep-12 18-Sep-12 18-Sep-12 26-Oct-12 07-Dec-12 26-Mar-13	19 69 81 126 39 104 53 50 133 51 69 67 N/A -49 -29 -6 45 0		X X X X X X X X X X X X X X X X X X X	Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Sheet Piling Commenced 16th April Problems with Sheet Piling causin movement to NR OHLE mast. Subsequent delay in works has been experienced due to NR. Delay accom'd within float, no effect on forecast completion of AIR-H route Road Closure has been booked for 5Aug to place bridge beams Delay due to reverting back to original construction methodology in lieu of design for ground improvements. However, ongoing review of construction programme, in conjunction with BBS, may result in improvement to to current forecast. Sheet Piling Commenced however Problems with Sheet Piling causing movement to Scotrail Structures. Full impact still to be determined. Delay accom'd within float, no effect on forecast completion of AIR-H route Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Delay accom'd within float, no effect on forecast completion of AIR-H route Complete Complete Complete Ahead of Schedule Long lead item's dates are confirmed. Duration of Tamping has been reduced which has mitigated impact to Section B completion date. Revised logic of Tamping Finish date and OHLE works in conjunction with this has switched CP to Track civils/Systems and Signalling work Availability date has been brought back in due to revised logic and of
M&E Installation On Street Off Street Off-Street Depot & Test facilities Test Facilities Test Facilities Test Facilities Test Facilities Test Facilities Test & Cortex Tram Test & Cortex Tram Test & Cortex Tram Test & Cortex	Forecast completion of AIR-HAY route Murrayfield ground improvements Complete Haymarket Yards Complete South Gyle Beam Installation Complete Water of Leith Bridge Complete W4, 19-29; Russell Rd. Retain Complete \$21A Roseburn St. Complete \$22A Balgreen Road Bridge Complete Gyle Tram Stop Complete cilities Reinf'd Earth Embank't Gogar Landfill Complete Eastfield Avenue Complete Ingliston Gas Mains Diversion Construction Complete A8 Underpass Completion & Traffic Back Gogar Burn Tram Stop Complete Tamping Ballast Section 7A Complete Rail Systems 7A Complete Overhead Catenary Systems 7A Ready for Testing AIR-Depot Test Track available	19-Oct-12 21-Aug-13 25-Mar-12 27-Feb-12 11-Jul-12 31-Aug-12 29-Oct-12 19-Sep-12 18-Sep-12 23-Apr-13 16-Mar-12 21-Feb-12 N/A 13-Jun-12 17-Oct-12 17-Oct-12 17-Sep-12 17-Sep-12 17-Nov-12 17-Nov-12	27-Sep-12 07-Nov-12 29-Oct-13 14-Jun-12 02-Jul-12 19-Aug-12 13-Dec-12 08-Nov-12 29-Jan-13 13-Jun-13 24-IViay-12 28-Apr-12 18-May-12 18-Sep-12 18-Sep-12 18-Sep-12 13-Nov-12 26-Oct-12 07-Dec-12	19 69 81 126 39 104 53 50 133 51 69 67 N/A -49 -29 -6 45 -6 0		X X X X X X X X X X X X X X X X X X X	Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Sheet Piling Commenced 16th April Problems with Sheet Piling causin movement to NR OHLE mast. Subsequent delay in works has been experienced due to NR. Delay accom'd within float, no effect on forecast completion of AIR-H route Road Closure has been booked for 5Aug to place bridge beams Delay due to reverting back to original construction methodology in lieu of design for ground improvements. However, ongoing review of construction programme, in conjunction with BBS, may result in improvement to to current forecast. Sheet Piling Commenced however Problems with Sheet Piling causing movement to Scotrail Structures. Full impact still to be determined. Delay accom'd within float, no effect on forecast completion of AIR-H route Rev5 to be agreed upon with BBS and should be revising logic of work and subsequent completion dates through this corridor Delay accom'd within float, no effect on forecast completion of AIR-H route Complete Complete Complete Ahead of Schedule Long lead item's dates are confirmed. Duration of Tamping has been reduced which has mitigated impact to Section B completion date. Revised logic of Tamping Finish date and OHLE works in conjunction with this has switched CP to Track civils/Systems and Signalling work Availability date has been brought back in due to revised logic and of

PROGRESS

SUMMARY

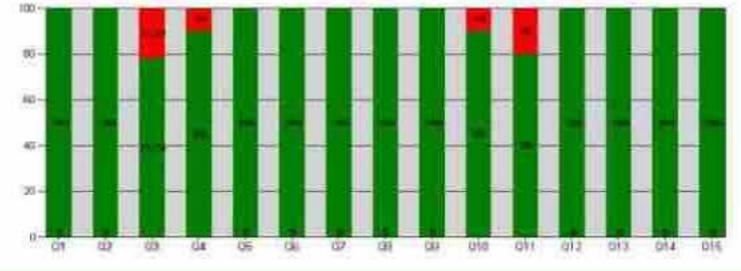
- During the last period Turner & Townsend have been working with McNicholas to continue the development of their project team and site structure. This has involved the development of additional KPI's to provide visibility of the number of operatives on site and the hours worked.
- A process is now in place to review changes instructed to McNicholas, to aid the control of working hours on site and to provide further clarity on the number of operatives required to complete each task.
- Joint monitoring and an internal coaching have progressed well during this period, with a noticeable impact on the McNicholas sites, these include a robust temporary works process and increased site control measures
- 4. The "Think before you Act" session with project's senior management was held on the 10th of May 2012. A summary sheet of contributions has been issued to CEC, Bilfinger Berger, Siemens, Transport Scotland, CAF and McNicholas.

COCP

CoCP & Key

- CoCP compliance for period 1 was recorded at 95%.
- 2. 6 issues required action. These comprised:
- Scaf tag out of date
- Poor signage, at two locations
- Poor housekeeping / site tidiness , at two locations
- Parking of vehicles

Q1. Hours of Work	Q9 Emergency Access
Q2. Notification	Q10 Parking
Q3. Notices	Q11 Litter and general housekeeping
Q4. Fencing and Hoarding	Q12. Dust
Q5: Noise	Q13: Smoking
Q6. Waste Management	Q14 Members of the Public
Q7. Waste Water and Run-Off	Q15_PPE and Behaviours
Q8 Water	





CDM Regulations

- During the last period the pre-construction activities were undertaken for the demolition works of the toilet block at Cathedral Lane. This has included undertaking a review of the documentation provided by the asbestos surveying organisations and development of pre-construction information for the demolition tender.
- The lifting plan and methodology for the installation of the Russell Road overbridge were reviewed and comments raised were addressed by BBS.
- 3. A review was undertaken of the proposed use of a 500T crane in Princes Street as part of the process to erect an observational wheel in Princes Street Gardens. The review highlighted some concerns with the methodology proposed. Subsequently this proposal has not been approved by City of Edinburgh Council

PROJECT INITIATIVES

<u>Deliver the Tram Safely</u>

- The 'Think before you act 'safety focus session was held on the 10th of May. A template for ideas and action was circulated to the participants of this session; the summary sheet of contributions has been issued to CEC.
- Discussions have been held between CEC, BBS and T&T regarding visits to
 Roseburn St and Balgreen primary schools. This is to raise awareness regarding
 the dangers of construction sites. A poster competition is planned, with a visit to
 the depot as part of the prize.

Incidents

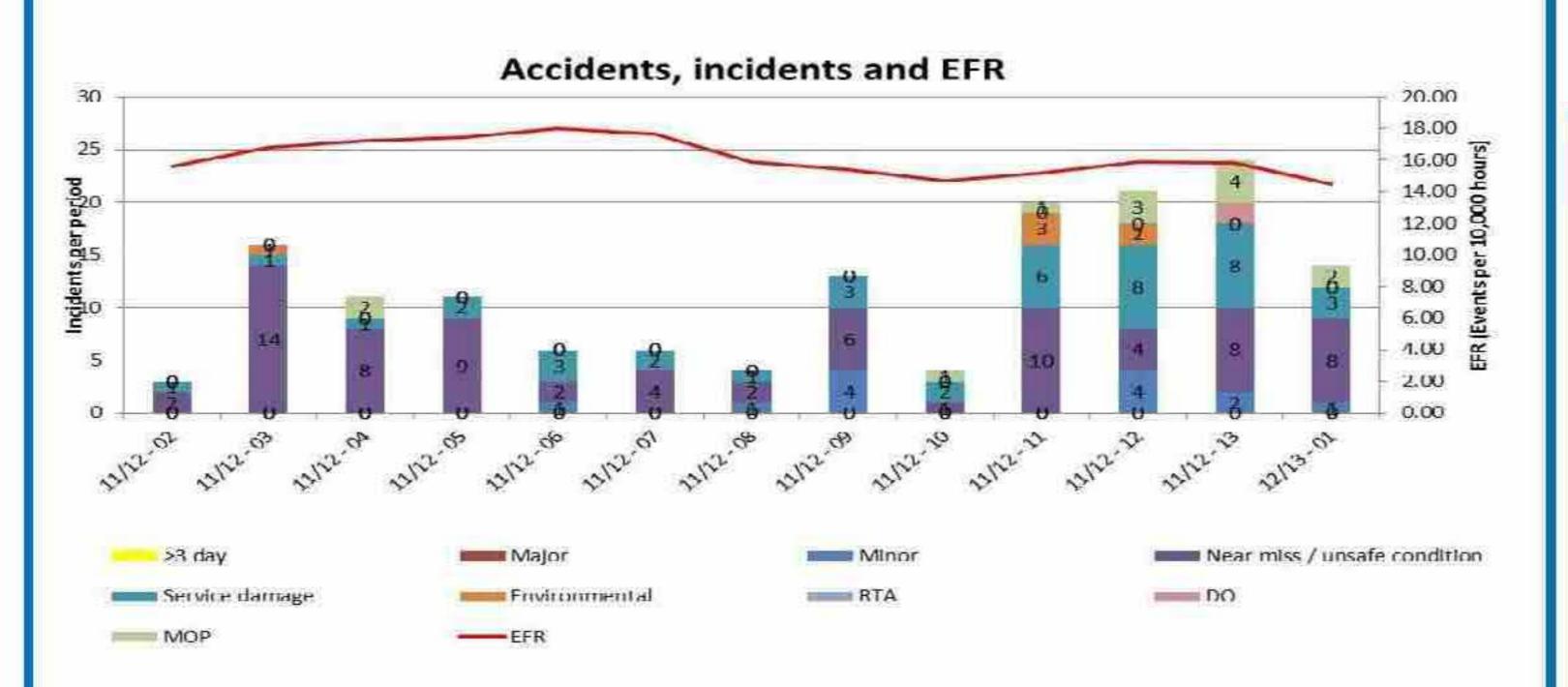
HEALTH & SAFETY

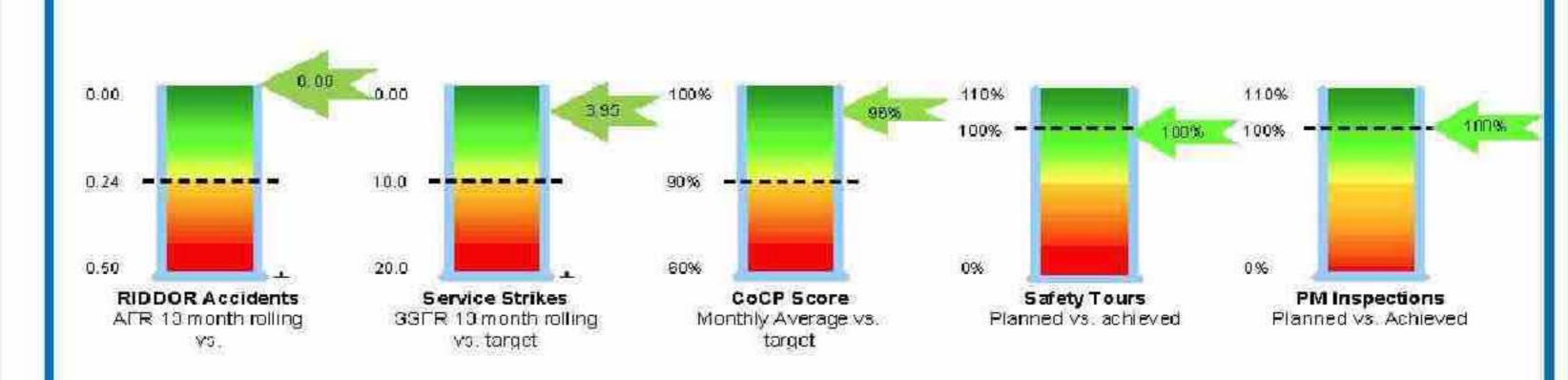
- There were 14 incidents reported during the period since the last dashboard. A summary is provided below; full details can be obtained on page 5 of the Progress Report.
- The two serious / significant incidents relate to two service damages, one to a 90mm gas main and the collapse of a Scottish water sewer within the Tram worksite. An investigation is currently ongoing to determine the cause of the sewer collapse.
- The actions identified by McNicholas regarding the 11kV cable strike in South St Andrews Street have been closed out.
- 4. A letter has been issued to the Health and Safety Executive (HSE) in response to the
- comments received regarding the procedures for addressing the management arrangements.

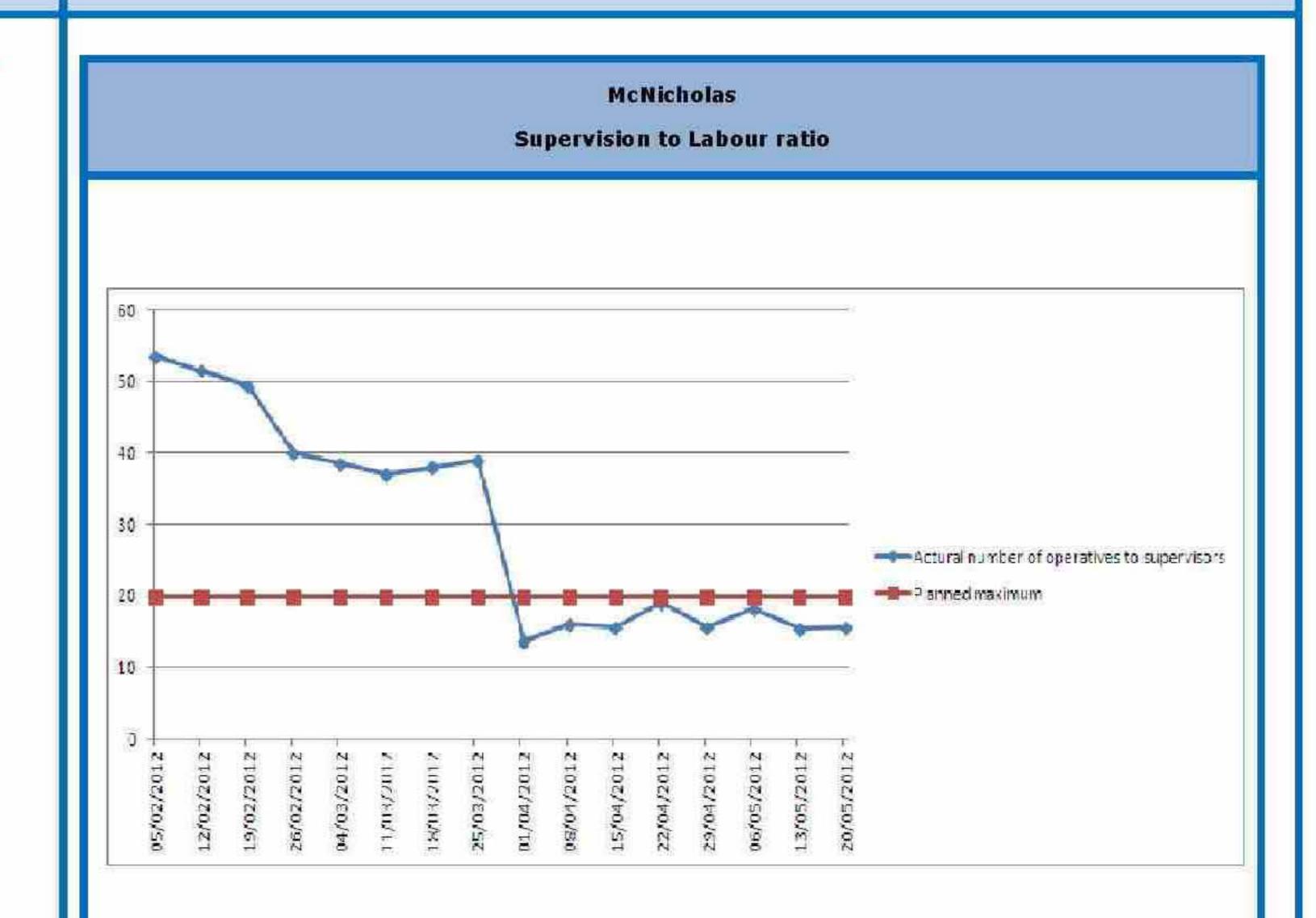
 5. The rolling 13 Period AFR remains at 0.00, better than the benchmark KPI of 0.23 for the project.

Classification	Number	Major	Serious / significant	Minor	RIDDOR Reportable
Member of public	4	0		4	0
Service damage	5	0	2	3	0
Environ mental	1	0	0	1	0
Major	0	0	0	0	0
Injury > 3day	0	0	0	0	0
Injury < 3 day	2	0	0	-	0
Dangerous occurrence	0	0	0	0	0
Road traffic accident	0	0	0	0	0
Near miss / unsafe condition	4	0	0	4	0
Other		0	-		0
TOTAL	14	0	2	12	0

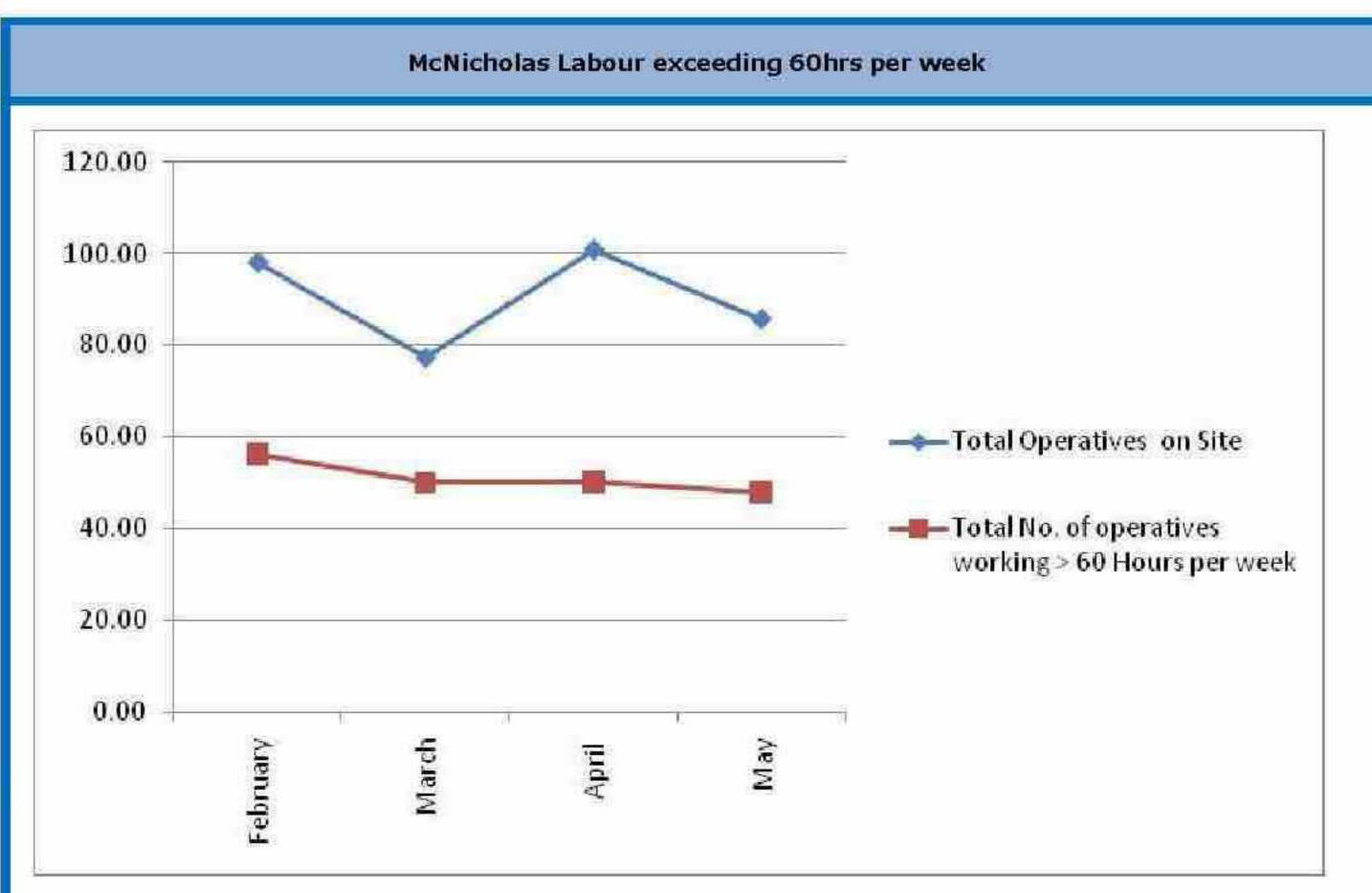
TREND







This graph shows that the ratio of operatives to supervisors has decreased.



This graph shows that approximately 50% of the operatives on site are working over 60 hrs per week.

ENVIRONMENTAL, QUALITY, ASSURANCE Martyn Ayres & Shirley Collin Employer Produced by SECTION City of Edinburgh Council CONFIDENTIAL - LEGALLY PRIVILEGED AND FOI(S) A EXEMPT Waverley Court, Edinburgh, EH8 8BG Turner & Townsend Project Management Limited, Julian Weatherley Address Approved by Issue By: 9 Lochside Avenue, Edinburgh Park 29TH April to 26th May 2012 Project: FINAL REPORTING PERIOD **Edinburgh Tram Network** Issue Date 31-05-2012

PROGRESS

SUMMARY

- Environmental- Inspection of monuments undertaken, meeting with McNicholas regarding handling of waste, ecological inspection of Cathedral Lane toilet block prior to demolition works.
- 2. Assurance Technical Support Services have been on site to carry out
- further inspections on electrical substations, good progress was reported.

 The handover of the mini test track took place on 16th May from BBS to CEC.

 It has subsequently then hand to the operator, Lothian buses, to manage the on going tram dynamic testing and installation works.
- Independent Competent Person RFO 021 Departure from RSP Guidance for Clearance to DKE – Closed; RFI 022 – Confirmation of As Built DKE Clearance has also been raised.
- Requirements Management Verification and Validation Agreed Status now 98% complete
- 6. Signalling & Traffic Reversing Strategy design has now been considered by all parties. The report was updated and presented to the Independent Competent Person at the ICP Liaison meeting on the 9th May 2012
- 7. Safety Verification Scheme Audits All findings for safety verification audit TSA/10/03 are now closed. Safety Verification audit TSA/12/02 on Bankhead Substation was carried out during the period
- Construction / Test & Commissioning Tram Wash Plant modifications to mitigate snagging was completed.
- Quality -report received and accepted for workmanship issues for concrete works in Princes Street.
- Total No of NCRs raised is 505. 20 NCRs were raised during the period and 23 NCRs were closed out during the period.



Total No of NCRs raised is 505.

20 NCRs were raised during the period and 23 NCRs were closed out during the period. There are 78 NCRs open, 412 NCRs closed and 15 NCRs cancelled/withdrawn. 11 no open NCRs are greater than 6 months old.

The report has been received from BBS regarding the workmanship issues for the concrete works in Princes Street. The findings have been reviewed and accepted by T&T & the ICP. Final close out is dependent on the Road safety Audit Stage 3.

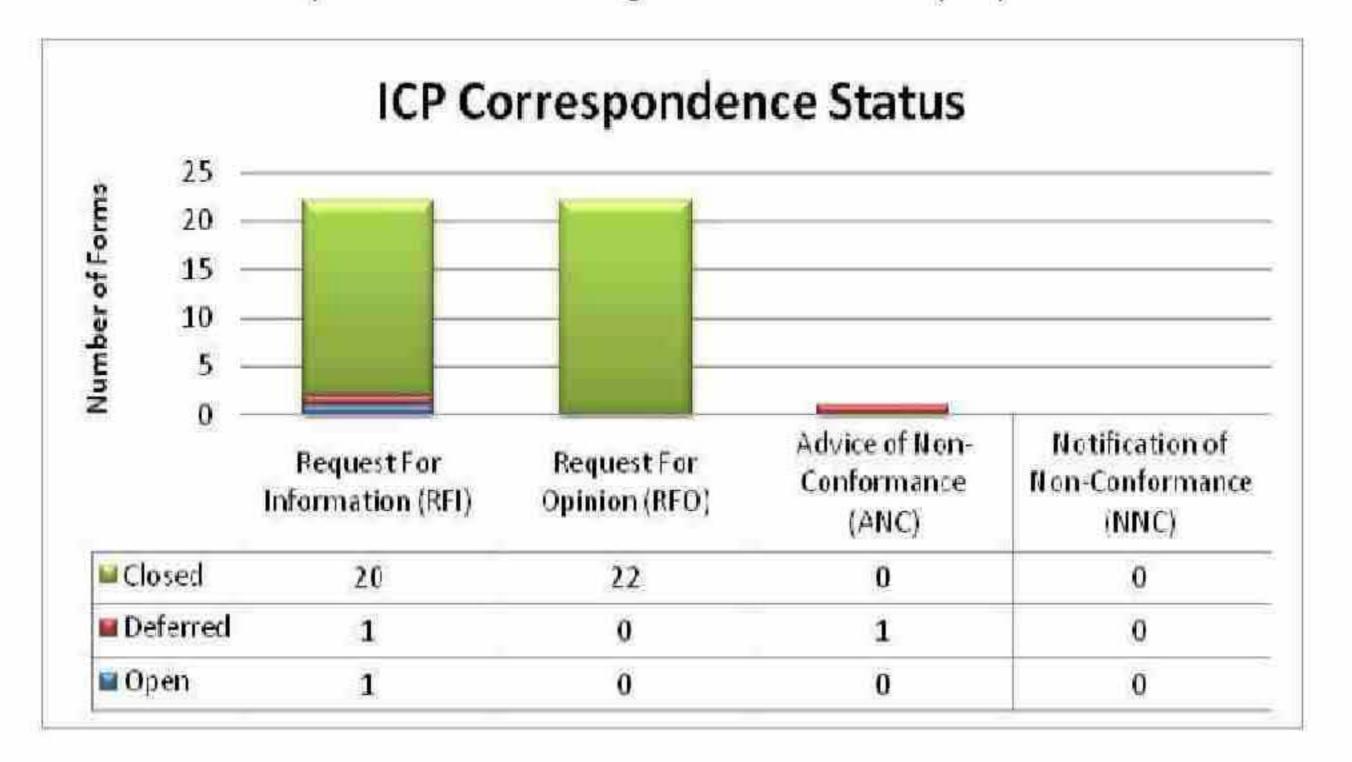
ENVIRONMENT

<u>Environmental</u>

- Inspection of monuments; namely the Ocean Terminal monument, the Hearts War Memorial, the Conan Doyle monument, the Leith Walk Pigeons and the Leith Walk Cast Iron Balls took place on 9th May 2012. Sheena Smith (CEC), John Lawson (CECAS) and representatives from Land Engineers were present. Subsequent meeting helped with land Engineering and agreement reached that the Ocean terminal Monument and Conan Doyle Monument could be reinstated. It is hoped that these monuments will be reinstated in June/July 2012. Meeting arranged with CEC 29th May 2012 to discuss programme.
- Meeting held with McNicholas to review the transfer of waste from and within the site boundary. Currently McNicholas have all waste removed from site by Neil Williams Haulage. Certain waste streams are stored at the Leith Depot until a full load can be removed. This waste is also removed by Neil Williams Haulage. A site Inspection was arranged with McNicholas on 24th May 2012. This inspection has been slightly delayed due to changes in McNicholas staff.
- John Darbyshire JDC Ecology carried out an ecological inspection of the Cathedral Lane toilets during the period. The was to ensure that no ecology was harmed / present prior to demolition of the toilet block. A formal report was issued and passed to the Project Manager. The report is available on the Turner & Townsend SharePoint site.
- 4. BBS are currently reviewing their need for a full time project ecologist. Turner & Townsend Assurance Team advised that a suitably qualified ecologist was required for all ecological related inspections / advice, in line with the requirements of the Code of Construction Practice. BBS Environmental Team will advise Turner & Townsend of the outcome of their review.

INDEPENDENT CERTIFIED PERSON

The ICP Liaison meeting held on the 9th May 2012 presented the Requirements Management progress and methodology and the Tram Reversing Strategy. The ICP noted that he was satisfied with the material he was presented with. Meeting minutes are currently in production.



REQUIREMENT MANAGEMENT

Progress

- Turner & Townsend Project Managers will be briefed on the agreed ER ammedments in order that they are aware of what has been agreed and what information they should expect for section handovers.
- As sections are formally handed over, BBS will formally notify Turner & Townsend what documentation is being presented as evidence (method of formal notification still to be agreed with BBS)
- 3. When section Project Managers receive relevant evidence, this is to be passed to the Assurance Team, who will then issue it to Technical Support Services (TSS) for review, and ensure that evidence is uploaded to Project Evidence File
- 4. Assurance Team will collate all responses and determine whether requirement is approved
- 5. Assurance Team will advise BBS as requirements become approved
- Upon approval of all requirements, BBS will issue Edinburgh Trams with formal notification that the process is complete (method of formal notification still to be agreed with BBS).



DEPOT SNAGS

Depot Snags COMPLETE MONITOR OUTSTANDING MUNRESOLVED CONGOING 1% 04%

12 Snags remain open , key snags to be closed are;

- L. Castell key sockets modification, This has been carried out however further work is now required..
- Water ingress to the wheel lathe, initial works completed however further water ingression is now present.
- 3. Sealing of Depot shed door, Tie Notice of Change has been issued to BBS.
- Work shop tool air supply piping, Tie Notice of Change has been issued to BBS.
- 5. Depot pit drainage resolution, has now been agreed between CAF and Lothian Buses.

CONSENTS

Combined Consents requ	ired			104-
	Lotal Required	Lotal On Hold	Lotal Outstansding	Lotal Closed
third party	18	4	12	2
Technical Informatives	6	1	3	2
Planning Consents	38	15	7	16
Other Approvals	12	0	8	A.
Legal Agreements	15	0	10	5

Key Consents due in the next period, with full list in the appendix.

- 1. Network Rail Asset Protection Agreement
- 2. Earthing and Bonding technical informative
- 3. Planning consent for Hearts memorial Relocation
- 4. Road safety audit approval for Section 1C.

SUCCESSES

All stakeholders are cooperating well at the depot.

- New assurance system implemented for Tram delivery
- 3. 'Think before you act' session
- Introduction of additional staff and working patterns

OPPORTUNITIES

SOFT ANALYSIS

- Increased monitoring of onsite activities.
 Project Management resources are will become part of integral assurance process.
- Safety seminars to be arranged for project managers.
- 3. Review of supervisor competencies
- Lack of availability of GIS information from Scottish Water.

FAILURES

1. None.

THREATS

- Statuary bodies co-operation.
- Late issue of documentation by BBS.
- Potential gaps between contracted maintenance responsibilities
- Visibility of BBS design and assurance documentation.

Produced by	Shirley-Anne Collin , Willie Delaney & Martyn Ayres	SECTION	CONFIDENTIA	TRAMS AL – LEGALLY PRIVILEGED AND	Employer	City of Edinburgh Council	
Approved by	Julian Weatherley	Issue By:	Tur	Turner & Townsend Project Management Limited, 9 Lochside Avenue, Edinburgh Park			Waverley Court, Edinburgh, EH8 8BG
Status	FINAL	Issue Date	31-05-2012	REPORTING PERIOD	29 th April 2012 to 26 th May 2012	Project:	Edinburgh Tram Network

PROGRESS IN PERIOD KEY ISSUES

PROGRESS IN PERIOD

- The Tram Inspector is now present at all tram testing at Gogar Depot. Tram test and commissioning is now progressing smoothly and effectively, in line with the Turner & Townsend Test and Commissioning procedure.
- Testing and commissioning now being scheduled more efficiently, to reduce the requirement for Tram Inspector's attendance at Gogar, thus reducing test and commissioning costs.
- 3. Tram commissioning slightly ahead of the commissioning plan:
- Fourteen trams now delivered to Gogar Depot.
 - 10 have completed Interim Routine Testing.
 - 1 is awaiting rectification of paint damaged in transit
 - Three trams scheduled for delivery in the next period
- Final tram scheduled for delivery on the 12th of December 2012
- Engineering Change Control workshop held with CAF and ETL to develop a change procedure for trams vested with CEC. The original scope was extended to cover all trams, with procedures developed in line with the ETL change control procedures to be used in operational service.
- The BBS Systems Integration Plan and Section B completion programme have now been delivered. Turner & Townsend have collated comments from all stakeholders and will facilitate a workshop on the 28th of May 2012, to allow all stakeholders to have an understanding of each other's test and commissioning requirements and form an agreement on roles and responsibilities.

LOOK AHEAD

The following items will be progressed during the coming period:

- Engineering Change Control procedure will be completed and agreed for Trams, to ensure compliance with the ROGS responsible person's requirements in relation to technical change may also be used for changes to Gogar Depot.
- Tram Commissioning Plan;

CEC

0

890

99

0050

- Fifteenth tram (#273) due to be delivered on the 5th of June 2012.
- Two additional trams to be delivered in June
- Routine Testing scheduled to be completed on four trams in next period.
- Turner & Townsend to facilitate the completion of the BBS System Integration Plan and Programme to ensure all stakeholders participate
- TVM procurement process to be agreed and functional requirement specifications further developed with all stakeholders. Procurement process to be defined and agreed.



Tram arrival at Gogar Depot

Scheduled Tram Delivery



Trams scheduled for delivery / testing next period	Date
Tram 15 (#273) scheduled for delivery to Gogar	05/06/2012
Tram 16 (#254) scheduled for delivery to Gogar	12/06/2012
Tram 17 (#255) scheduled for delivery to Gogar	25/06/2012

Tram Commissioning Progress



CoTC - Certificate of Tram Commissioning IRTC - Interim Routine Test Certificate (MTT) CoTD - Cerificate of Tram Delivery DAT - Delivery Acceptance Test

Jests Completed

KEY ISSUES

- Lothian Buses have yet to take full operational responsibility for the Depot. Negotiations are on going with CEC.
- Engineering Change process required to manage the identification, investigation and rectification of issues raised during tram operation procedure to be developed to cover all trams at Gogar Depot.
- 3. Process for the collection of verification evidence for Milestone Payments has been agreed, with an understanding that CAF will not apply for payment until all agreed requirements have been met. Additional physical evidence to be provided to CEC by Turner & Townsend to justify payment valuation.
- Two technical issues identified during the previous period have been progressed, as follows;
 - The incorrect placement of pedals in the cabs of all trams
 - All trams currently at Gogar Depot have been rectified
 - Further trams will be rectified prior to arrival at Gogar Depot
 - Investigation report received from CAF; Turner & Townsend are seeking clarification on some issues raised by the report
 - The detachment of a roof panel on tram 252
 - A fleet check identified that there were no issues with any other trams
 - Ongoing checks ensure security of roof panels prior to tram operation
 - CAF technical investigation underway to determine if further remedial work is required to reduce the risk of future occurrence

OPERATIONAL ISSUES

 Ticket Vending Machines (TVMs) - Lothian Buses are currently confirming the procurement situation and Preferred Bidder status for TVMs. A decision in expected imminently. There is still a level of functional requirement that must be specified before equipment can be procured.

CEC ACTIONS / DECISIONS

- Decision to be made on whether Bus Tracker equipment is to be fitted to trams.
- . Decision required on procurement process and Preferred Bidder status for Ticket Vending Machines

SOFT ANALYSIS

SUCCESSES 1. Tram commissioning now progressing smoothly in 1. Start sys

Valuation process agreed with CAF, with no payment request made without agreed evidence

accordance with new procedures

OPPORTUNITIES

- Start system testing and commissioning on completion of Off Street Section (Airport to Shandwick Place crossover) leading to earlier commencement of Revenue Service date (early partial service on Off Street Section and early service on full route)
- Review of BBS Section B completion plan may allow trams to be commissioned ahead of schedule

THREATS

None identified

FAILURES

Relationship between BBS (primarily Siemens) and CAF needs to be strengthened, to avoid any affect on integration and coordination of testing.

- Need to finalise the plan to handover responsibility of depot operations from ETL to Lothian Buses
- Lack of direction on Bus Tracker and TVM requirement is delaying the procurement of these items

Produced by	Rob Leech & Shirley Collin	SECTION		ON STREET DASHBOARD REPORT CONFIDENTIAL – LEGALLY PRIVILEGED AND FOI(S)A EXEMPT		Employer	City of Edinburgh Council
Approved by	Julian Weatherley	Issue By:	Turner & Townsend Project Management Limited, 9 Lochside Avenue, Edinburgh Park			Address	Waverley Court, Edinburgh,EH8 8BG
Status	FINAL	Issue Date	31-05-2012	REPORTING PERIOD	29 th April to 26 th May 2012	Project:	Edinburgh Tram Network

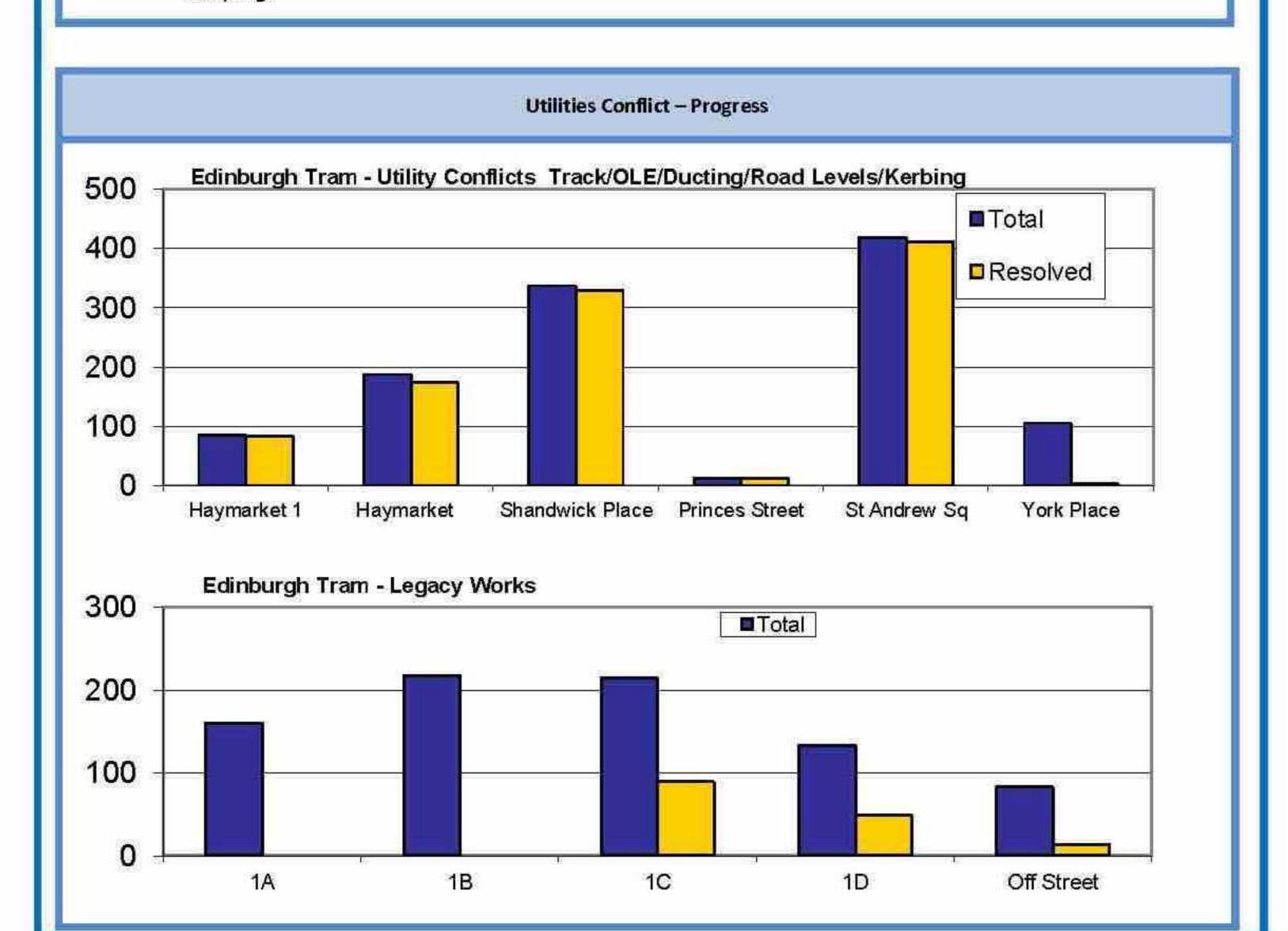
	PERIOD		PHOTOGRAPHS				
Status	FINAL	Issue Date	31-05-2012	REPORTING PERIOD	29 th April to 26 th May 2012	Project:	Edinburgh Tram Network
Approved by	Julian Weatherley	Issue By:	Turner & Townsend Project Management Limited, 9 Lochside Avenue, Edinburgh Park			Address	Waverley Court, Edinburgh,EH8 8BG
Produced by	Rob Leech & Shirley Collin	SECTION		TIAL - LEGALLY PRIVILEGED AN	Employer	City of Edinburgh Council	

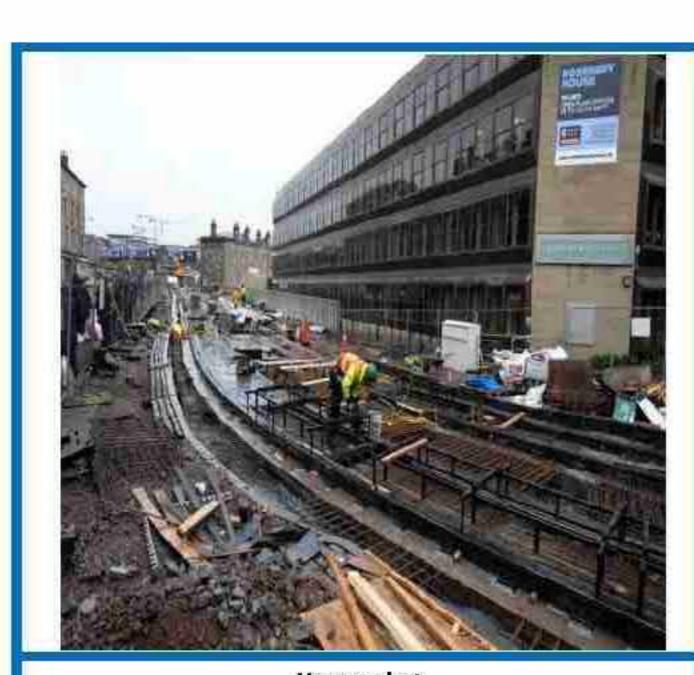
PROGRESS

- 1. Tram ducting conflicts have delayed Infraco works in the period
- Infraco has continued with track slab construction in areas not affected by drainage redesign and/or ducting conflicts
- Impact has been more pronounced between Lothian Road and Haymarket and there is a marked difference in approach from Infraco management
- Works in St Andrew Street have progressed although Infraco is still projected a delay in completion of ~2 weeks
- Detailed planning of works in York Place has progressed well and ducting works at Cathedral Lane are underway. CEC has set Turner & Townsend a challenge to accelerate utility works in York Place to facilitate early access for Infraco
- Princes Street opening works progressing.
- Legacy works issues with Scottish Water (SW) have not progressed as well as anticipated and this and other SW issues have been escalated to CEC for discussion at a senior level.
- Tender for Leith walk legacy works due back on 8 June although aspects of the construction programme may need to be deferred to accommodate other major works in the city
- Works delayed at Tower Place Bridge although Lindsay Road works expected to be completed by the end of June.
- 10. Sewer collapse at Grosvenor Investigation underway
- 11. Dublin Street Steps Planning Committee target date 20 June

LOOK AHEAD

- Early resolution of tram ducting issues
- Significant push in Princes Street to ensure opening on 29 June
- Commencing demolition works at Cathedral Lane and BT Works at Broughton Street
- Planning of accelerated York Place utility conflict works.
- Turner & Townsend will continue to react to utility discoveries by Infraco and will work with Infraco in planning any "type 2" conflict works not diverted prior to sites being handed back.
- Work will continue on dealing with legacy works, including issues of the tender for the legacy works north of York Place.
- Planning approval for Dublin Street Steps will continue to be monitored.
- Support will be provided to CEC in delivering the Forth Ports remedial works.
- Close out of commercial issues arising as a consequence of the drainage and track box re-



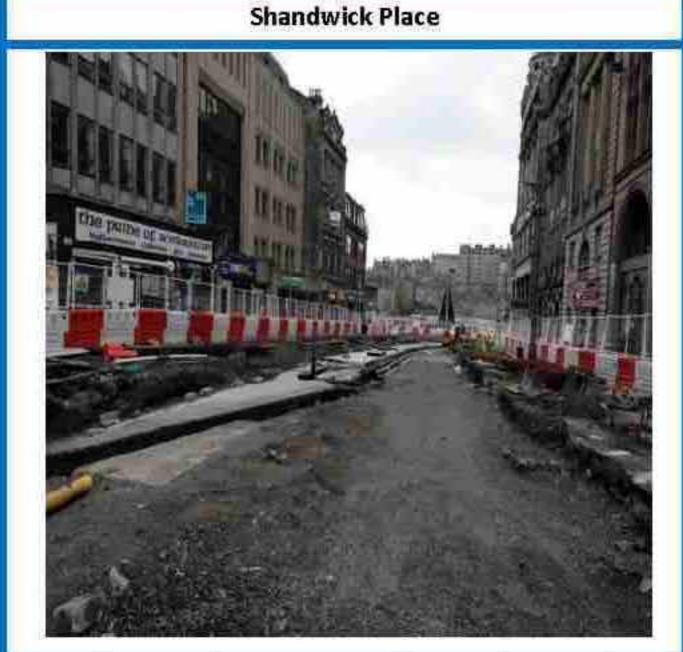


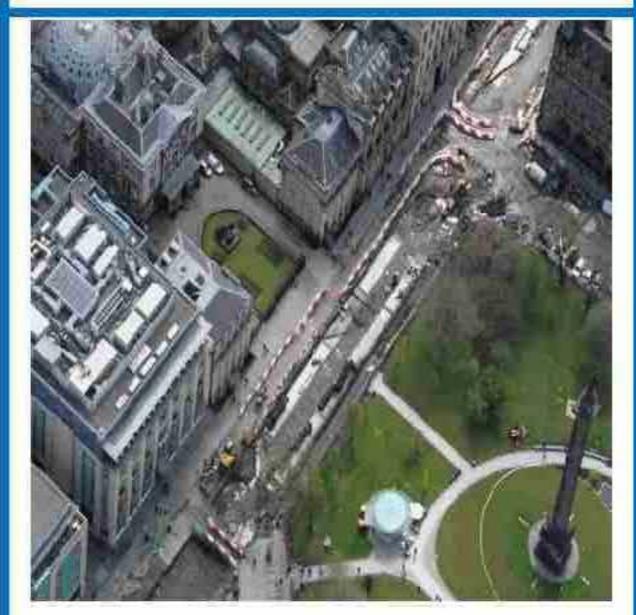




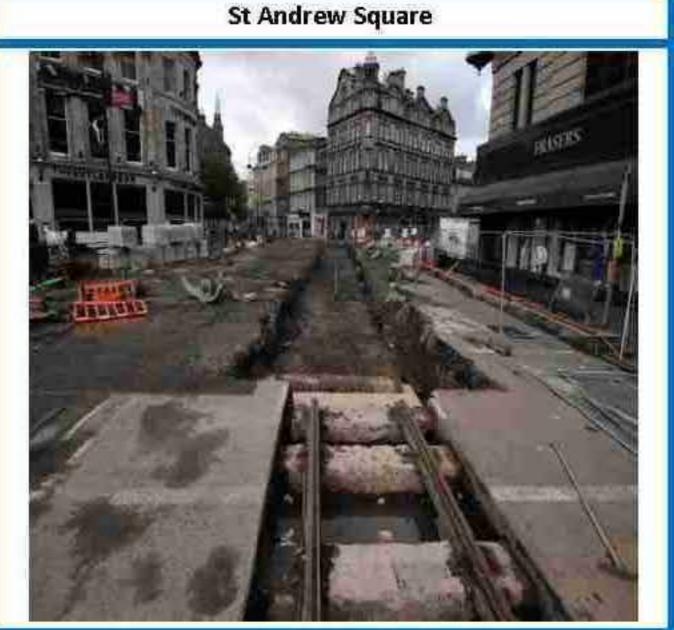


Princes Street

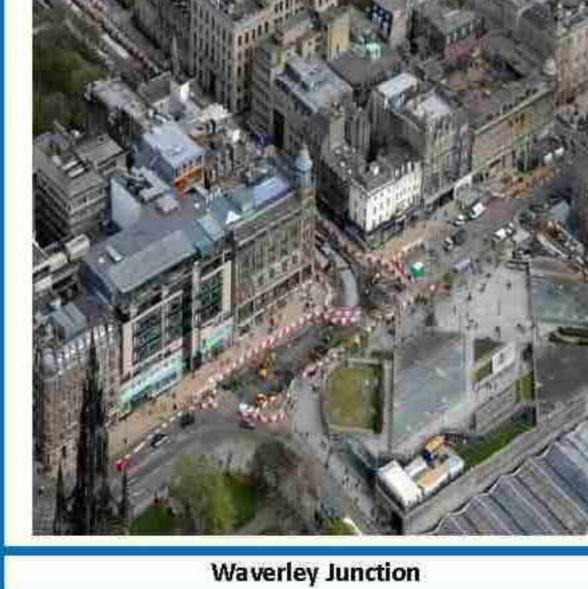




St Andrew Square



West End Princes Street



KEY ISSUES

- Tram ducting conflicts
- Scottish Water relationship generally and legacy issues requiring derogation
- 3. Princes Street opening and possible blockers including Scottish Water and residual
- 4. York Place acceleration
- Legacy works within tram worksites Possible delays
- Legacy works North of York Place.

CEC ACTIONS / DECISIONS

- Support in obtaining permissions at Dublin Street Steps.
- Final confirmation of approach to programme at York Place.

SOFT ANALYSIS

SUCCESSES

- Working relationships with BBS remains good, particularly on site
- Speedy reaction to drainage issues

OPPORTUNITIES

- Optimize revised traffic phasing
- Close out works at Forth Ports & Lindsay Road
- Look to accelerate enabling works in York Place ahead of the October traffic management

FAILURES

- Carriageway vertical alignment in south St Andrew St
- SDS OLE design
- MUDFA design, as builts, contract administration & supervision

THREATS

- Tram Ducting
- Legacy works at Leith Walk
- Legacy works within tram worksites
- Scottish Water relationship
- Unknown utilities
- 6. Approval of Dublin Street Steps
- Infraco delay to Rev 4 due to utilities
- 8. Infraco non-conformance in Princes Street

Produced by	Shirley Mushet & Shirley Collin	SECTION		OFF STREET DASHBOARD REPORT CONFIDENTIAL – LEGALLY PRIVILEGED AND FOI(S)A EXEMPT			City of Edinburgh Council
Approved by	Julian Weatherley	Issue By:	Turner & Townsend Project Management Limited, 9 Lochside Avenue, Edinburgh Park			Address	Waverley Court, Edinburgh, EH8 8BG
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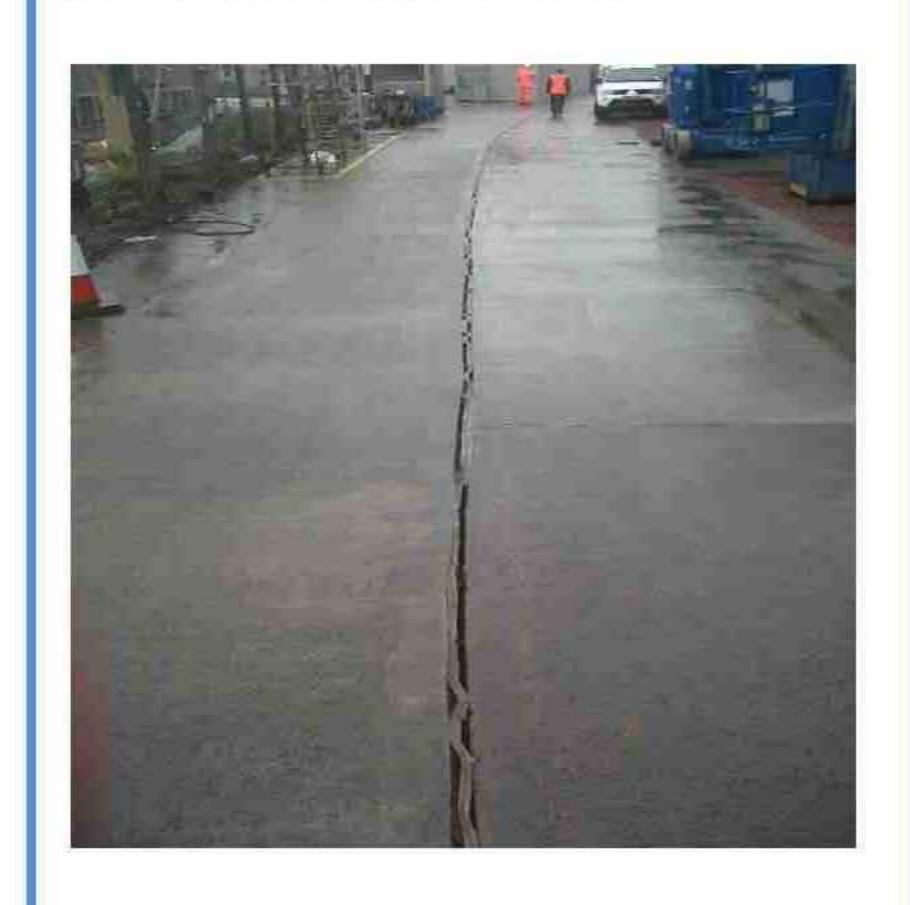
PROGRESS IN PERIOD PHOTOS

PROGRESS IN PERIOD

- Edinburgh Gateway design change agreed and progressing.
- Roseburn bridge beams installed.
- SGN diversion at NIL complete.
- The secant piling has been completed at the airport.
- Landscaping between Ingliston Park and Ride and the Gogar Burn is complete.
- Road signage foundations are commencing around the Gogar roundabout.
- Lochside Avenue crossing commenced.
- Soil reinforcement at the Gogar Landfill is complete.
- Bankhead Drive earthworks and drainage works have continued.
- Abutment works are progressing on South Gyle Access Bridge.
- 11. The track works at Carrick Knowe and from Haymarket Yards to Balbirnie continued.
- 12. Works have commenced to enable the removal of Network Rail's Balgreen Road Bridge, this shall see a series of road closures at weekends during the upcoming period.
- 13. Progress is being made on the sheet piling works along the Murrayfield corridor and at the ScotRail depot.
- 14. Weekend works to complete the road joints at Haymarket Yards commenced;
- 15. Cladding at the Haymarket Viaduct has commenced.
- 16. Scottish Power have installed the new cable to the Haymarket substation and removed the cable which was interfacing with the Network Rail station foundation.

Scotrail Depot Movement

Scotrail Depot: Concrete slabs have separated due to sheet piling, this can be seen by the gap in the joint between the slabs.



KEY ISSUES

- Movement due to piling works at the ScotRail depot and on Network Rail's track assets.
- Eastfield Avenue; Airport have raised concern over the gradients between the two trams lines at both the road and pedestrian crossings.
- Edinburgh Gateway late design change by SDS; king post wall now being progressed.
- Scottish Water raised concerns over previous MUDFA works this work now requires to be repeated.
- Network Rail's Haymarket Project team have raised concerns over tram drainage in their car park.

CEC ACTIONS / DECISIONS

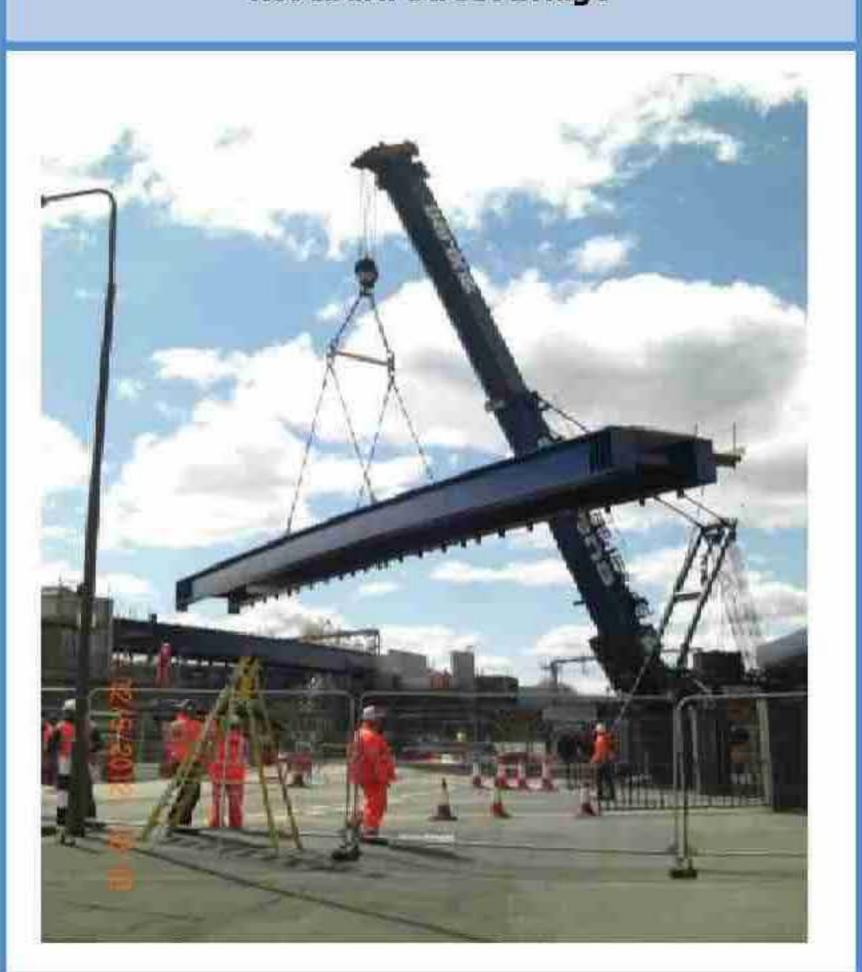
- Close out the Scottish Water buildover at Haymarket.
- Close out of the wayleave with Scottish Power and Network Rail.
- Close out of Asset Protection Agreement with Network Rail.
- CEC to ensure that they are satisfied that InfraCo can progress the airport tram stop design.

LOOK AHEAD

The following items will be progressing during the coming period:

- Review of Revision 5 programme.
- Retaining wall construction continuing along the Gogar Burn.
- 3. Earthworks at Ingliston Park and Ride following the completion of the SGN diversion.
- Continuation of Lochside Avenue crossing and Edinburgh Park Corridor
- Bankhead Drive earthworks and drainage continuing.
- Balgreen Road Bridge removal continuing.
- Water of Leith continuing with west abutment formation.
- 8. Ground Improvements commencing on Murrayfield Corridor S21B and S21C subject to subcontractor discussions
- Continuation of the cladding works on Haymarket Viaduct.
- 10. Network Rail shall mobilise their Haymarket station works into the car park at Haymarket.
- 11. Fit out of Haymarket substation.

Roseburn Street Bridge



OFT ANALYSIS

SUCCESSES

- SGN diversion completed on time.
- Utilisation of stored on street poles for Edinburgh Gateway
- Completion of soil reinforcement at Gogar landfill.
- 4. Equipment arrival at Haymarket substation.

- **OPPORTUNITIES** Early diversion of the Edinburgh Gateway
- Purchase of the temporary mast maybe negated by using the current aerial within the depot.

FAILURES

1. Movement of Network Rail and ScotRail assets lead to programme delays.

THREATS

Eastfield Avenue gradients may be raised as an issue by the airport.

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Produced by	Shirley Collin, Mike Mackenzie & Peter Smith	Function	COMMERCIAL CONFIDENTIAL – LEGALLY PRIVILEGED AND FOI(S)A EXEMPT					Employer	City of Edinburgh Council
Approved by	Gary Easton	Issued By:	Turner & Townsend Project Management Limited 9 Lochside Avenue. Edinburgh Park			Address	Waverley Court, Edinburgh,EH8 8BG		
Status	FINAL	Issue date	31-05-2012	Reporting Period	29 th April to 26 th May 2012	Project	Edinburgh Tram Network		

SUMMARY					VALUE ENGINEERING			
			2		Item		£K	Comment
		Contract	Approved Change	Revised Contract Sum	Remove emba	rgoes and revise	d TM 6,460	22 week saving reduced to 16.6 at period end 28/4/12
					Setts (separate	e CEC budget)	980	£88k CEC contribution (SAS) and £95K for revised specification.
Infraco	ant Madiations	413,103	-993	412,110	De-scope publ Sq	ic realm at St An	drew 700	Instructed, monitored through changes in progress
	ost Mediation)	1,812	5,461	7,273	Minimum and the second	3rd Party Agreem	ents 2,500	Miscellaneous 3 rd party contributions
Legacy Uti	ilities (Revised Tram Route)	0	500	500		s at Forth Ports	2,445	Instructed, approved change
(3(=1) \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	ilities (Leith Walk)	1,100	-1,100	0	Omit Airport T Canopy	ram Kiosk and	150	Instructed, monitored through changes in progress
Tram vehi	cles	63,645 479,660	3,873	63,650 483,533	Temporary tra	m stop at York P	ace 150	Instructed, monitored through changes in progress
Totalo		177,000	5,0,5	100,500	Redeployment	of Trams	CEC	Included in CEC budget code
Change in	Progress			9,850	Cancel track You Newhaven	ork Place to	1,100	Instructed, approved change
Anticipate	d Change			11,997	Omit Siemens	works at Tower I	Place 100	Instructed, approved change
Contribution	ons			-7,417	Road re-constr	ruction depth	700	Instructed, monitored through changes in progress
Forecast C	Change / Contributions			14,430	Design freeze	north of York Pla	ce t.b.c	Infraco design costs expended
Forecast T	otal			497,963	Lay off TM at F	Lay off TM at Forth Ports/Leith Walk		TM not included in Infraco budget provision
T OFECASE T	ecai			437,303	Roseburn Viad	uct Cladding	300	Instructed, monitored through changes in progress
· · ·	er risk section below)	(presentation	to be reviewe	ed with CEC)	De-scope crew (Haymarket)	relief facilities	70	Instructed, monitored through changes in progress
section be	ties (refer opportunities low)				Opportunities	s secured	8,365	
Risks & Op	oportunities				Opportunities	s to secure	7,310	
Revised Fo	orecast				THE PROPERTY OF THE PROPERTY O	Target and the contract of the		ving vs 22 weeks, current position 16.6 ies in YP under review.
Budget					2. York Place Tramstop - design principles established, cost check in progress			
					3. Road recons identified on	117	Opportunity to re	duce road reconstruction depth being
		R	ISK - Signi	ficant Move	ement in Period	d (Apr/May 1	2):	
				1				
Risk ID	Risk Des	270		Old Level		New Level		Comments
ED103	Nisk that the project relationship with Scottish Water deteriorates and access to utilities and resolving of delay			Risk RED Due to stage of Scottish Water related work and red Reduced progress the risk impacts were reduced and risk is n				

Risk ID	Risk Description	Old Level	Movement	New Level	Comments
ED109	Risk that the project relationship with Scottish Water deteriorates and access to utilities and resolving of delay issues becomes prolonged	RED	Risk Reduced	RED	Due to stage of Scottish Water related work and recent progress the risk impacts were reduced and risk is no longer the top project risk
ED071	Discovery of additional Track construction conflicts (live)	R(ED)	Risk Reduced	AMBER	Time impact has been reduced as systems in place to manage conflict finds have proved successful and YP occupation allows time to resolve
ED055	Risk that access to 3 rd party land is delayed or denied	AMBER	-	GREEN	Minimal 3 rd party land requirements left. Airport only potential issue
R018	Security Incident	GREEN	1	AMBER	Recent increase in vandalism and theft. Concern that volume of OHL, track, tramstops and cables will attract theft.
R068	Infraco cannot construct the IFC drainage design	RED	CLOSED	CLOSED	Drainage design agreed and being implemented.
ED116 (New)	H&S Breaches, Incidents and stoppages	NEW	NEW	RED	Increased number of incidents have highlighted a risk of McNicholas H&S breaches. Work ongoing to resolve.
R041	Approval of plans for Edinburgh Gateway.	RED		AMBER	Reduction in impact. Once full sign off is received by BB/S both parties are in agreement that risk can be closed out or further reduced.

CHANGE

BBS On-Street Works Estimate (Period end 31 March) and Commercial Issues

		£K
	On - Street	
15	Utility conflicts - investigation	20
25, 72 & 87	OLE foundations resulting from discovery of utilities	699
28	Temporary accommodation for utilities contractor	2
29	Road re-construction protocol (opportunity to reduce depth)	0
30	Additional CBR/Plate testing - ground strength	0
32	Utilities affecting site clearance - disconnect power to bus trackers	-15
35,79	Utilities contractor affecting Infraco progress	34
36	BT Fibre Optic affecting progress	85
37	Slit trench to validate utilities	9
38	Move 3 OLE foundations (St Johns Church)	12
40	Scottish Water diversion Princes St	251
43	Christmas embargo - temporary infill Princes St	218
44	BT diversion - Princes St (included PMC 040)	Inc
52	Install Traffic Management early Shandwick and St Andrew sq	163
68	Utilities affecting track drainage	13
69	Geotextile liner to Clifton Terrace void	3
	Total On-Street Works Estimate	1,494
	Off - Street	
t.b.c	Payment for Utility diversions Off Street outwith BBS's scope	340
61	Temporary footpath and drainage - Roseburn Viaduct	30
t.b.c.	Low voltage supplies to Airport Tramstop cabinet	310
	General	
	Rev3A to Rev 4 programme - evidence of delay costs (BB only, Siemens t.b.c)	600
	Depot doors - new drains to prevent water ingress	t.b.c
	Re-configure ducts at Haymarket Yards owing to fence post foundation within LOD	t.b.c
	Snags/defects in Princes Street - ponding, rutting in road surface, etc	t.b.c
	TOTAL	2,678

- Utility diversions Off Street: Infraco consider SGN diversion is out of scope and a compromise is required since additional costs have also been incurred for other diversions.
- LV supplies to Tramstop Cabinets Infraco considers that as these were excluded from the price submitted at mediation, however it is not a Settlement Agreement exclusion.
- Rev3A to Rev 4 programme delay 2nd September to 3rd of October further evidence required to demonstrate cost incurred, Infraco consider that Independent Certifiers opinion authorises costs submitted in full i.e. £4.5M
- Depot doors T&T believe that this is a defect. Infraco are reviewing matters with suppliers. However, they have stated that the design is based upon value engineering and design approvals and rectification is therefore an extra.
- Ducts at Haymarket Yards T&T querying the extent to which additional costs could have been avoided when the workface was opened up.
- Snags/defects in Princes Street Infraco claim that they are not responsible for defects resulting from the 2009 works.



Appendix 2 – Health, Safety & Environment

Deliver the Tram Safely / Deliver a safe Tram





Project Report – Period 2

1.0 Executive Summary

Executive Summary

- Independent Competent Person RFO 021 Departure from RSP Guidance for Clearance to DKE Closed during period (INF CORR 8299); RFI 022 Confirmation of As Built DKE Clearance was also raised during the period (INF CORR 8311)
- Requirements Management Verification and Validation Agreed Status now at 98% complete
- Signalling & Traffic Reversing Strategy design has now been considered by all parties. The report was updated and presented to the Independent Competent Person at the ICP Liaison meeting on the 9th May 2012. BBS are now addressing the comments raised.
- Safety Verification Scheme Audits All findings for safety verification audit TSA/10/03 are now closed.
 Safety Verification audit TSA/12/02 on Bankhead Substation was carried out during the period
- Design Typical track section details for Edinburgh tram network were reviewed during the period and discussed with BBS.
- Construction / Test & Commissioning Tram Wash Plant modifications to mitigate snagging was completed during the period and will be commissioned in the next period.
- Tram 14 vehicles now delivered to the depot. Four are currently undergoing static and dynamic testing

Non Conformance Reports - Total No of NCRs raised is 505.

- 20 NCRs were raised during the period and 23 NCRs were closed out during the period. There are 78 NCRs open, 412 NCRs closed and 15 NCRs cancelled/withdrawn. 11 no open NCRs are greater than 6 months old.
- The report has been received from BBS regarding the workmanship issues for the concrete works in Princes Street. The findings have been reviewed and accepted by T&T & the ICP. Final close out is dependent on the Road safety Audit Stage 3.

2.0 Safety Verification Scheme (SVS)

Evidence File – Currently no information can be uploaded to the evidence file as the site has not been transferred over to the new SharePoint. IT has now agreed the product to facilitate the transfer and price has been agreed.

- SVS Audit (Substation pre-electrification) was carried out at Bankhead Substation 17th May 2012. The report is currently under internal review and will be issued during the next period.
- Next SVS Audit TSA/12/03 Scheduled for 13th
 June 2012 Section 1C Slips, Trips, Falls (2
 Wheel Vehicles).
- Operator disposition statement relating to their responsibilities following handover of the Mini Test Track has been reviewed and comments issue by TSS. These will be responded to during next period.
- The ETN Safety Assurance Plan (Ref CP 8235)
 was formally re-issued at revision 3 during the period

3.0 Independent Competent Person

ICP Issues

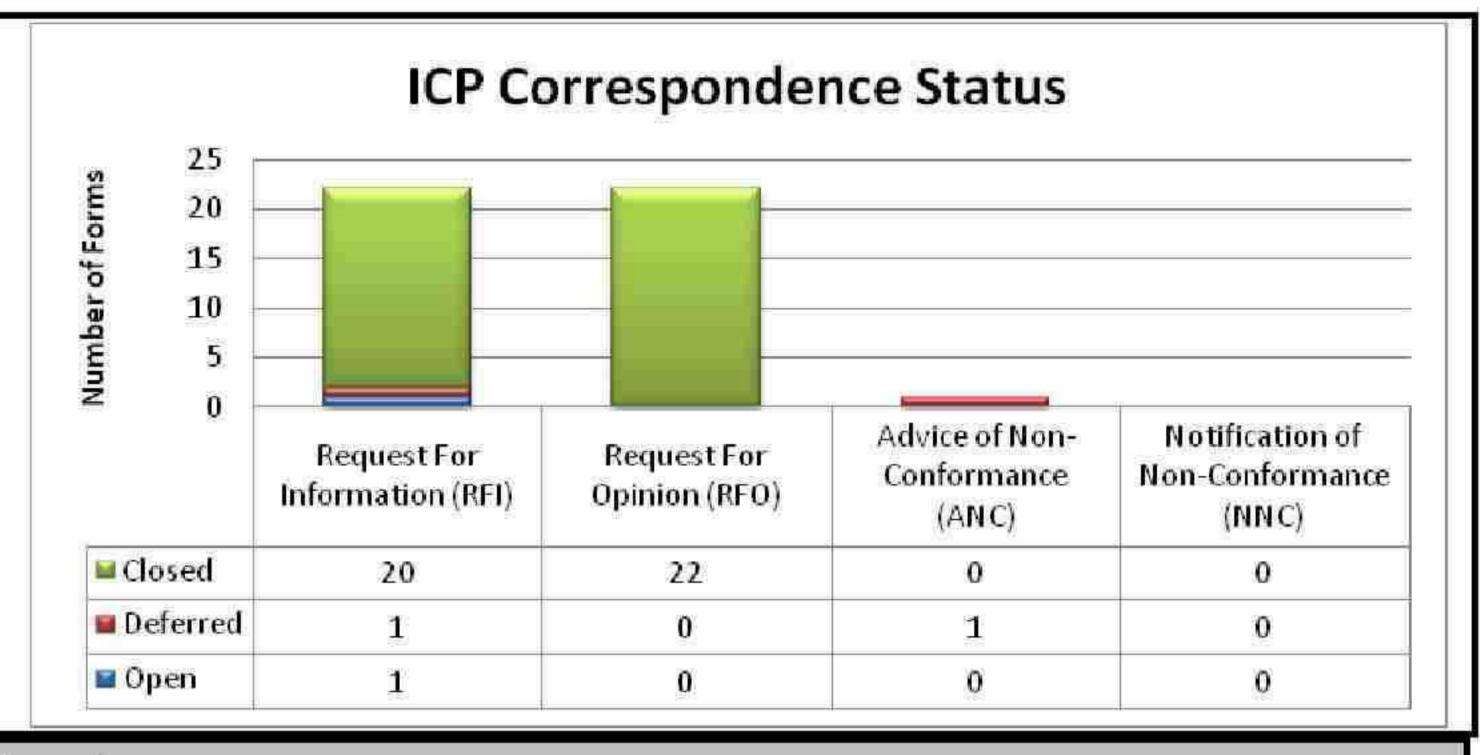
- RFO-021 Departure from RSP Guidance for Clearances to DKE – ICP provided an opinion noting and supporting the request from BBS(Ref. INF CORR 8299).
- RFI 022 Confirmation of As-Built DKE Clearances raised during the period. It requires the project to assure that Dynamic Kinematic Envelope (DKE) clearances notified as sub-optimal in RFO-021 are verified to be no worse than stated (Ref. INF CORR 8311).
- The ICP Liaison meeting held on the 9th of May 2012 presented the Requirements Management progress and methodology and the Tram Reversing Strategy. The ICP noted that he was satisfied with the material he was presented with. Meeting minutes are currently in production.





Project Report – Period 2

The ETN Safety Verification Scheme (Ref CP 8322) document was updated during the period. The ICP is reviewing the final draft prior to full issue at revision 5.



4.0 BBS Design Construction and Testing & Commissioning Assurance

Design

Electromagnetic Compatibility (EMC)

- BBS Correspondence (Ref. ETN(BBS)CEC\$TEE&ABC#054959) SIT Procedure Overall Magnetic and Radiated Emissions (IO 1.0) was submitted for information during the period. The document is currently under review.
- SDS provided information to enable Network Rail to provide a non-objection to the proposed location for the Radio Mast near to the Edinburgh Gateway stop.

Trackform

Rheda City Track Typical Sections were submitted during the period. These have been reviewed by TSS and significant concerns have been raised in relation to the ability to maintain the tracks in the future.

Signalling and Traffic Signals

Reversing Strategy – was presented to the ICP at the ICP liaison meeting on the 9th May 2012. The ICP noted and supported the design as presented.

Testing & Commissioning

<u>Depot Tramwash</u>

 The tramwash facility at the depot has now been modified to correct the design flaw that meant it could not properly wash the front and end of a vehicle. The modified facility will be commissioned during next period

SCADA and Comms

The Hard Wire Mass Trip facility has now been provided in the Operational Control Room.





Project Report – Period 2

5.0 Operator/Maintainer Safety Management System (inc. T&C)

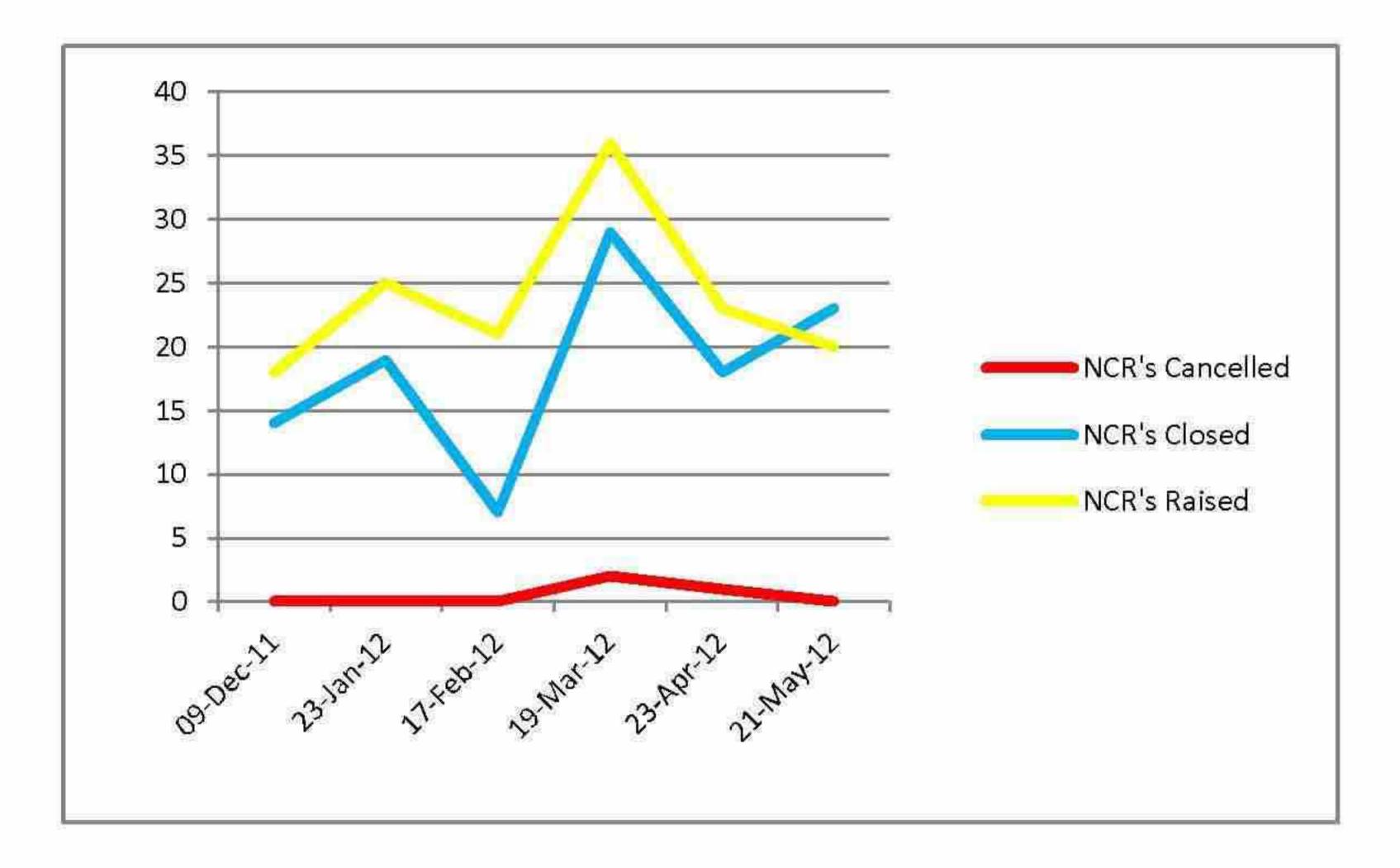
- Operator provided a Disposition Statement to describe how they will manage their new responsibilities relating to safe systems on the MTT. The supporting documentation has been reviewed by TSS and several concerns have been raised due to supporting documents not being appropriately modified to reflect current status of the project and capability of the MTT. These will be addressed during next period
- Depot and mini-test track operations continue. 14 vehicles have now been delivered and are undergoing testing and commissioning.
- The mini-test track has been successfully handed over to the operator (Lothian Buses via Edinburgh Trams)
- An interim operating agreement between Lothian Buses and the City of Edinburgh Council has been drafted.
- A hard-wired mass trip button has been provided in Control to facilitate emergency traction power switching
- A meeting to scope further peer review by Lloyds Register Rail of the operating and maintenance organisation and its processes has taken place. Its findings and closed out of any recommendations will be presented to Lothian Buses board at its August meeting
- Preparations are now underway for recruitment and training of additional drivers and controllers to facilitate Section B test track activities from Mid December 2012. Meetings with project partners have assisted in confirming assumptions made in the programme are correct and ensuring that the operators programme is integrated with that of the project.
- To assist the operations team with this task an HR Manager has been appointed to the team.

5.0 Metrics

No progress to report during period

6.0 NCR's

- Total number of Non Conformance Reports raised 505
- Total number of Non Conformance Reports raised in period 2 43
- Total number of Non Conformance Reports closed in period 2 23
- Number of Non Conformance Reports greater than 6 months old 10





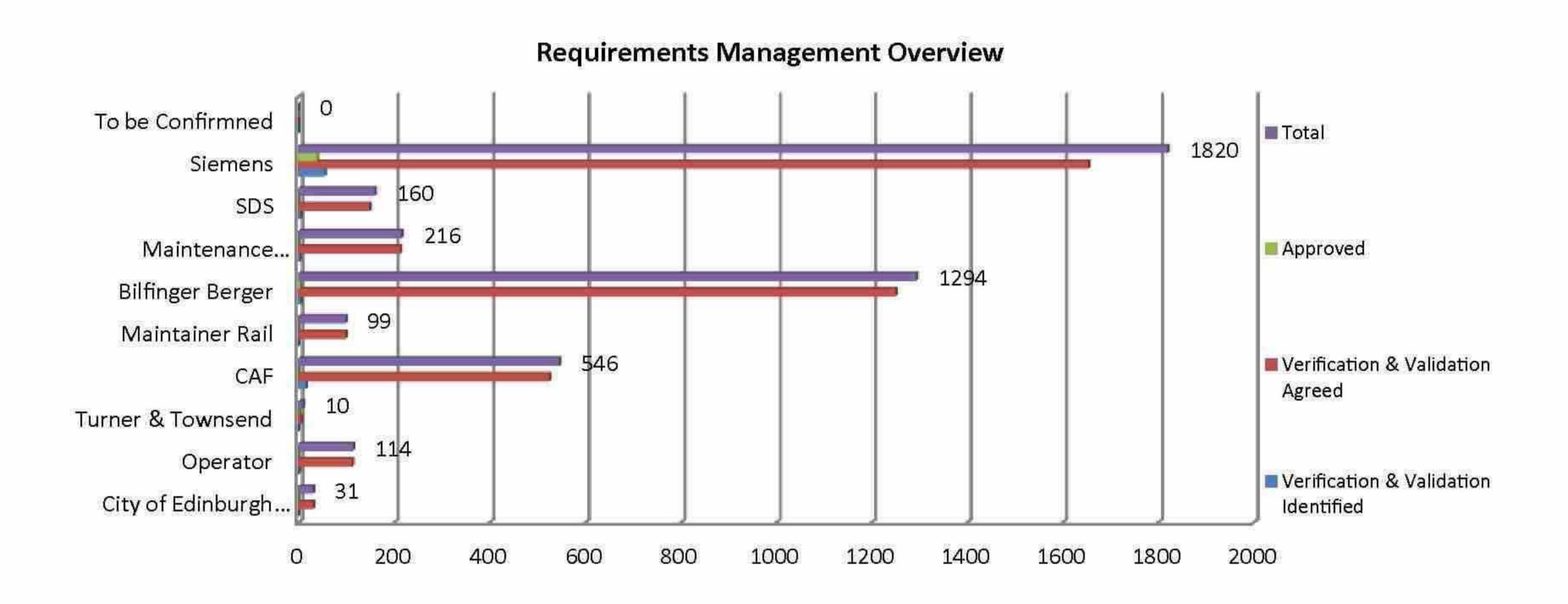


Project Report – Period 2

7.0 Requirements Management

Process overview

- Complete Verification and Validation Agreed Status
- Provide all information to Turner & Townsend Project Managers in order that they are aware of what has been agreed and what information they should expect for section handover
- It has been agreed as sections are formally handed over BBS will formally notify Turner & Townsend what documentation is being presented as evidence (method of formal notification still to be agreed with BBS)
- When Project Managers receive relevant evidence this sis to be passed to Assurance Team who will issue to Technical Support Services (TSS) for review, and ensure that evidence is uploaded to Project Evidence File
- Assurance Team will collate all responses and determine whether requirement is approved
- Assurance Team will advise BBS as requirements become approved
- Upon approval of all requirements, BBS will issue Edinburgh Trams with formal notification that the process is complete (method of formal notification still to be agreed with BBS)



% Verification & Validation Agreed Status	% Verification & Validation Approved Status
98%	2%

8.0 Deliver a Safe Tram – Required Actions

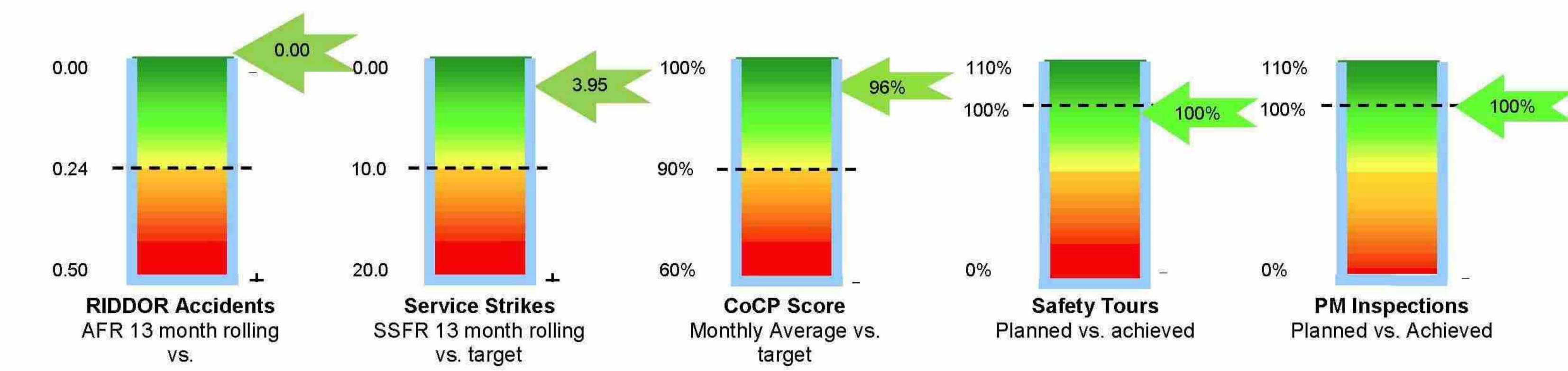
- Metrics Inspection QM73 and QM78 to be progressed to closure
- Next ICP Liaison meeting to be on 11th July 2012. The Independent Competent Person advised that he would like 'Tramstop Equipment' to be considered as a topic. BBS to do a presentation on clearances / visibility / maintainability.
- Next PSCC meeting to be held on the 6th of June 2012; then on the 1st of August 2012.
- Complete and formally issue Safety Verification Audit Reports for TSA/12/01 and TSA/12/02





Project Report – Period 2

HS&E ACCIDENTS and INCIDENTS SUMMARY											
Total	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	ENV	RTA	МОР	AFR	SFR
Period	143,869	0	О	0	4	5	1	0	4	0.00	3.48
13 period rolling	1,139,536	0	0	13	80	45	7	0	17	0.00	3.95
INFRACO											
Period	102,143	O	O	O	2	1	0	O	2	0.00	0.98
13 period rolling	862,974	0	0	13	54	23	6	0	12	0.00	2.67
OTHER TRAM											
Period	28,193	0	O	0	2	4	1	0	2	0.00	14.19
13 period rolling	127,029	О	O	0	26	22	1	О	5	0.00	17.32



EXECUTIVE SUMMARY

- There were two serious / significant incidents relate to two service damages, one to a 90mm gas main and the collapse of a Scottish water sewer within the Tram worksite. An investigation is currently ongoing to determine the cause of the sewer collapse.
- There were 12 other incidents (5 member of public incidents, 5 service damages, 1 environmental incident and 4 near miss/unsafe conditions) See Appendix A for details.
- The rolling 13 Period AFR remains at 0.00, better than the benchmark KPI of 0.23 for the project.
- CoCP compliance was recorded at 96% during Period 2
- 100% of planned PM joint inspections have been carried out during Period 2.
- 100% of planned safety tours were carried out during Period 2.

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Project Report – Period 2

HS&E INSPECTIONS SUMMARY (a summary of significant inspection findings can be found in appendix B)								
Project Running Totals	HS&E Tours (Directors)	HS&E PM Inspection						
Number planned	2	9						
Number achieved	2	9						

HSQ&E KEY ACHIEVEMENTS

 The rolling 13 Period AFR remains at 0.00, better than the benchmark KPI of 0.23 for the project.

Key Issues – Points to Note

- During the last period Turner & Townsend have been working with McNicholas to continue the development of their project team and site structure. This has involved the development of additional KPI's to provide visibility of the number of operative on site and the hour worked, these are shown on the health and safety dashboard in the appendix.
- A process is now in place to review changes instructed to McNicholas, to aid the control of working hours on site
 and to provide further clarity on the number of operatives required to complete each task.
- Joint monitoring and an internal coaching have progressed well during this period, with a noticeable impact on the McNicholas sites, these include a robust temporary works process and increased site control measures.
- The competence review of key Turner & Townsend staff has been completed, CSCS cards will be obtained for all Project Management staff, and this will be supplemented with additional site management training for managers activity involved in site works. Three training courses have been identified with final arrangement to be made.
- The safety initiative 'Think before you Act' session with the project's senior management was held on the 10th May. A template for ideas and action was circulated of the participants of this session; these are now being reviewed to support the recommendations moving forward.

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Project Report – Period 2

ENVIRONMENTAL SUMMARY

List any significant environmental events, initiatives, breaches etc

- Inspection of monuments; namely the Ocean Terminal Monument, The Hearts War Memorial, The Conan Doyle Monument, The Leith Walk Pigeons, The Leith Walk cast Iron Balls took place 9th May 2012. Sheena Smith (CEC), John Lawson (CECAS) and representatives from Land Engineers were present. Subsequent meeting helped with land Engineering and agreement reached that the Ocean terminal Monument and Conan Doyle Monument could be reinstated. It is hoped that these will be returned June/July 2012. Meeting arranged with CEC 29th May 2012 to discuss programme.
- Meeting held with McNicholas to review the transfer of waste from and within the site boundary. Currently McNicholas have all waste removed from site by Neil Williams Haulage. Certain waste streams are stored at the Leith Depot until a full load can be removed. This waste is also removed by Neil Williams Haulage. Site Inspection arranged with McNicholas 24th may 2012. This inspection has been slightly delayed due to changes in McNicholas staff.
- John Darbyshire JDC Ecology carried out an ecological inspection of the Cathedral Lane toilets during the period. This was to ensure that no ecology was harmed / present prior to demolition of the toilet block. A formal report was issued and passed to the Project Manager. The report is available on the Turner & Townsend SharePoint site.
- BBS are currently reviewing their need for a full time project ecologist. Turner & Townsend Assurance Team advised that a suitably qualified ecologist was required for all ecological related inspections / advice, in line with the requirements of the Code of Construction Practice. BBS Environmental Team will advise Turner & Townsend of the outcome of their review.

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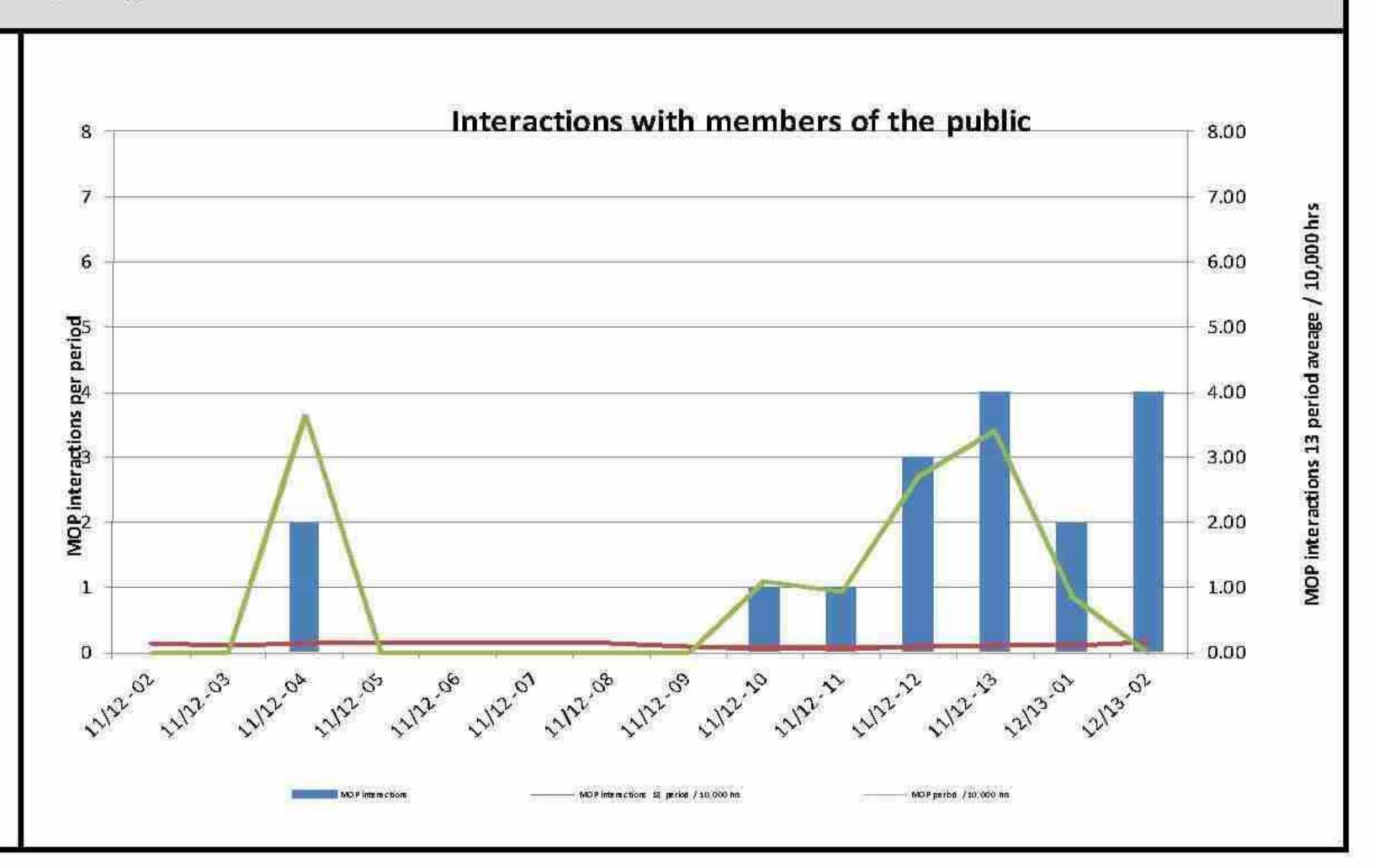


Project Report – Period 2

MEMBER OF PUBLIC INTERACTION SUMMARY

List any significant interactions with members of the public, including RTA's, alleged incidents

There were four reported Member of Public incidents during Period 2. Two involved damage to clothing on heras fencing panels, one involved a person tripping on a traffic signal base and one related to a query from a resident relating to the working hours at Grosvenor Street relating to the sewer collapse.

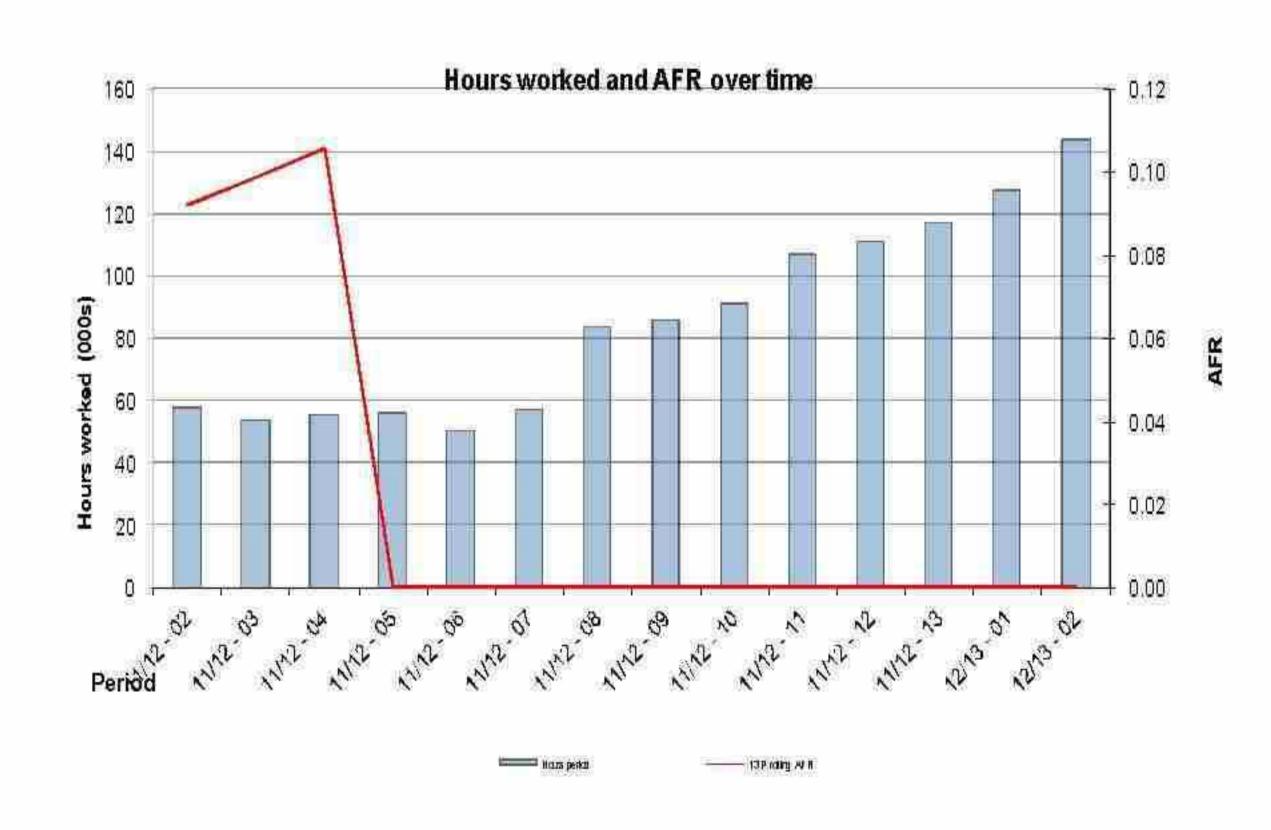


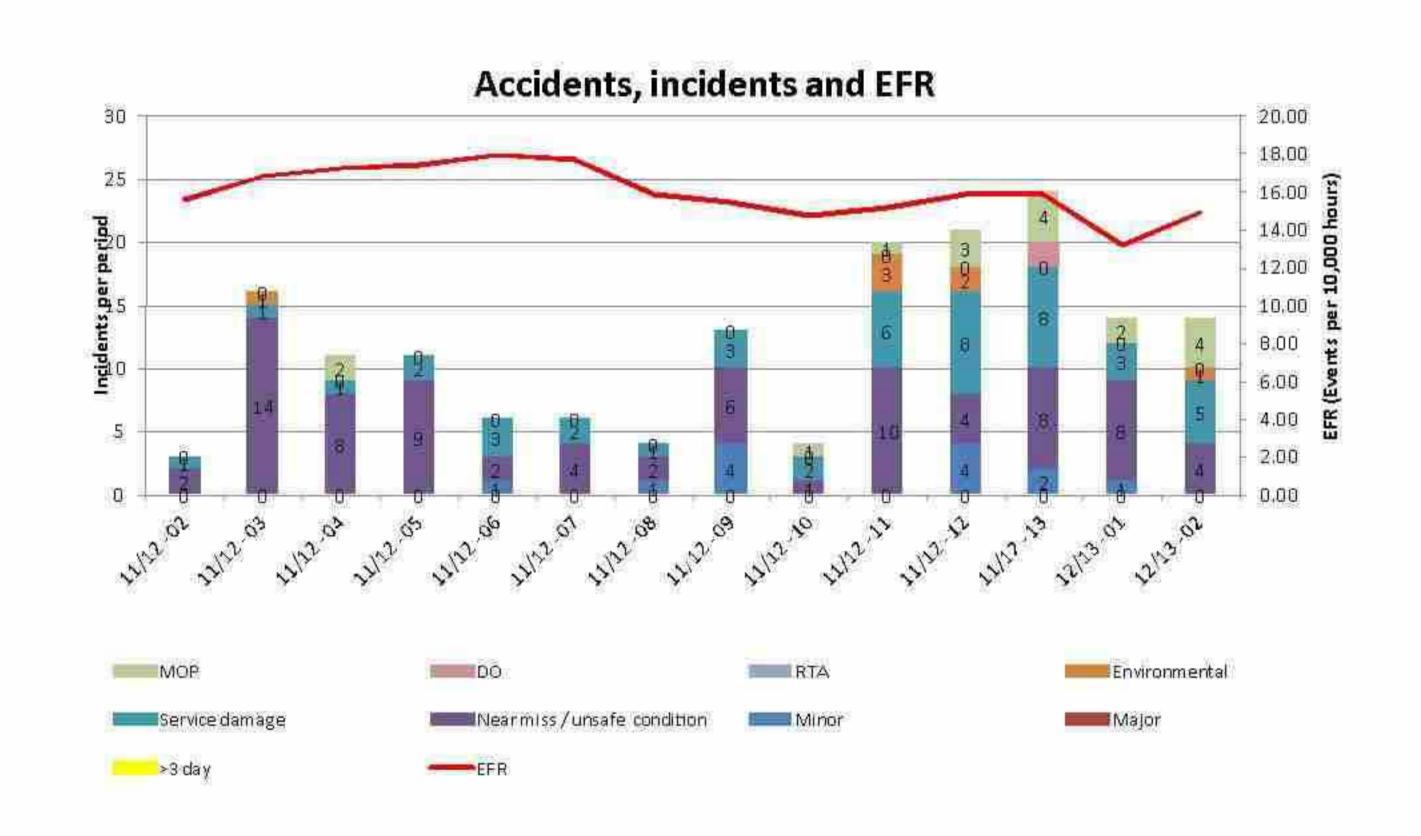
CDM Compliance

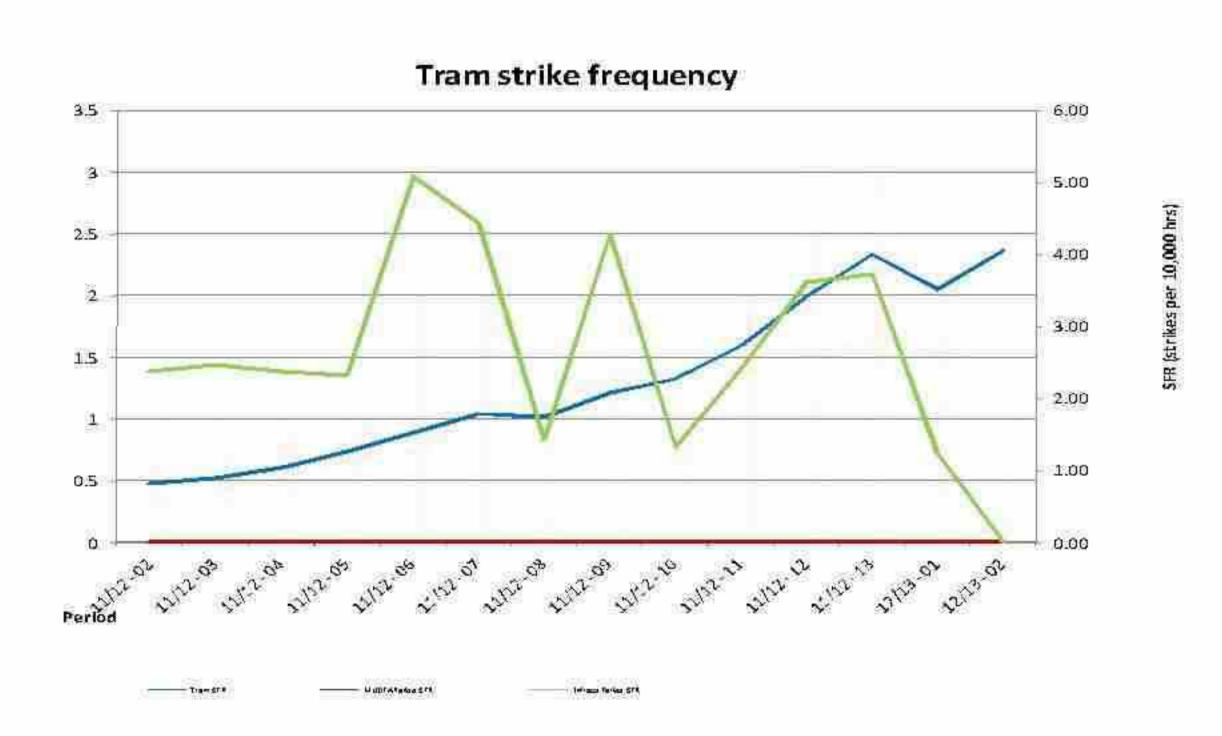
List any significant quality events, initiatives, breaches etc

- During the last period the pre-construction activities were undertaken for the demolition works of the toilet block at Cathedral Lane.
- The lifting plan and methodology for the installation of the Russell Road overbridge were reviewed and comments raised were addressed by BBS.
- A review was undertaken of the proposed use of a 500T crane in Princes Street as part of the process to erect an observational wheel in Princes Street Gardens.

GRAPHS







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Project Report – Period 2

APPENDIX A

There were 14 incidents in total since the issue of the last DtTS report. Of these 2 were classified as serious / significant and details are provided below:-

Significant Incidents

Details of Incident					
AIIR Ref:	1 660	Contractor:	McNicholas		
Location:	West Maitland Street				
Project:	Utility works	Date & Time:	30/04/2012 14:00		
Sub Contractor:		Contractor Reference:			
Project Manager:	Mark Redgard	Is the accident / incident Serious / Significant or Major?		No	
Description:	90mm PE gas main struck a	nd damaged by mechanical exc	avator.		
Action taken by Contractor:	SGN called to site to initiate incident. As the same machine operator was involved in AIIR 1650, operator to be removed from duties as a excavator operator until a suitable training/ refresher course on utilities avoidance and safe excavation can be arranged and attended.				
Action taken by Project Team (if required):					

AIIR Ref:	1666	Contractor:	McNicholas				
Location:	Grosvenor Street						
Project:	Utility Works	Date & Time:	10/05/12 2	0:45			
Sub Contractor:		Contractor Reference:					
Project Manager:	Stephen Lewcock	Is the accident / incident Serious / Significant or Major?		Yes	No		
Description:	Flooding to properties at Grosvenor Street from blocked sewer.						
Action taken by Contractor:	action over pumping.	T&T, Scottish Water and McNicholas on site 21:15 approx to resolve issue - immediate action over pumping. Investigation being undertaken 11/05/12 AM to determine cause of blockage.					
Action taken by Project Team (if required):							

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Project Report – Period 2

APPENDIX A (Continued)

Other Incidents since last DtTS report

AllR numb	Date of event	Period	Location description	Initial description	Contractor involved
AIIR01661	03/05/2012	12/13 - 02	Torhichen St / West Maitland St	Damage to Traffic Lights cable by sub contractor (Diona)	McNicholas
AIIR01662	30/04/2012	12/13 - 02	Shandwick Place	MoP damage jacket on broken Heras fence panel	Lagan Construction
AIIR01663	29/04/2012	12/13 - 02	St Andrew Square	MoP damaged jacket on broken Heras fence panel	McNicholas
AllR01664	03/05/2012	12/13 - 02	Edinburgh Park Station.	MoP tripped on traffic signal base protruding from pavement. Damaged glasses. Related insurance claim. Action taken by Crummock to protect defect with cone, pending repair.	Crummock
AllR01665	08/05/2012	12/13 - 02	Bankhead Drive	Damage identified to HV cable (considered previous damage). No injury or loss of supply.	Crummock
AllR01667	10/05/2012	12/13 - 02	Grosvenor Street	Complaint from Mrs Traylor regarding noise from pumps that were on site due to the collapse of the Scottish Water sewer. Number of calls received regarding excessive noise	
AIIR01668	13/05/2012	12/13 - 02	Shandwick Place	Fencing blown over blocking footway outside Rutland Hotel	McNicholas
AIIR01669	13/05/2012	12/13 - 02	Section 5	Excavator window broken over weekend 12 - 14 May 2012	Crummock
AIIR01670	14/05/2012	12/13 - 02	Lothian Road/Princes Street	Fencing blown over Lothian Road/Princes Street causing obstruction at Frasers. Rhino fencing blown over Princes Street	McNicholas
AllR01671	14/05/2012	12/13 - 02	Burnside Road, Edinburgh Airport	Airport Duty Manager reports Heras Fence panels blown down over in the vicinity of the Airport tram stop	Farrans
AIIR01672	14/05/2012	12/13 - 02	Grosvenor Street	Mrs Taylor stated that she had a young child and asked when the excavation works outside her flat would be stopping for the night.	McNicholas
AIIR01673	17/05/2012	12/13 - 02	Coates Crescent	Stree lighting cable damaged at 19 Coates Crescent	McNicholas

Record: CR8235.3 Revision No.: 3/0

ELECTRONIC COPY - UNCONTROLLED IF PRINTED

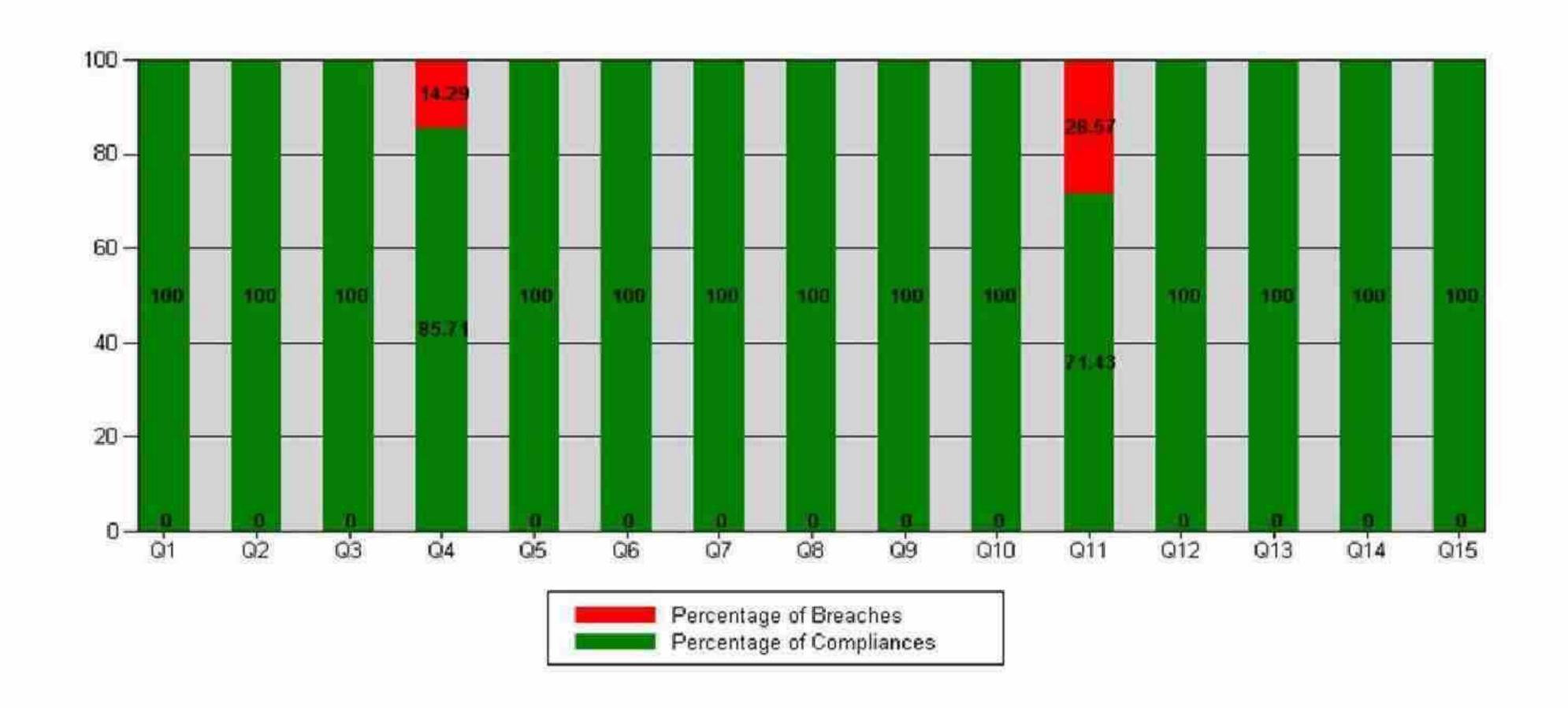


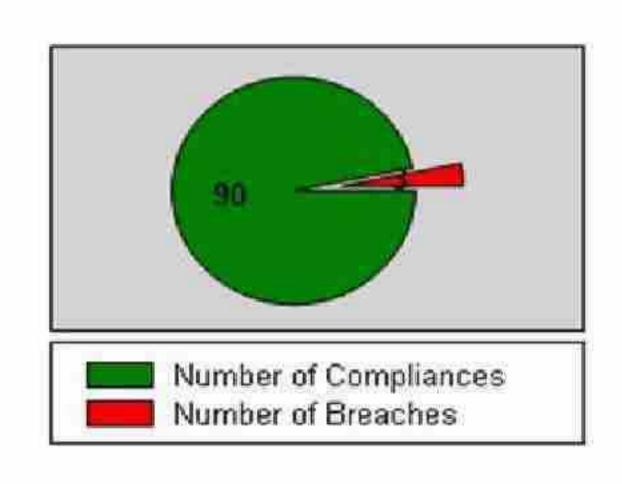


Project Report – Period 2

APPENDIX B – COCP INSPECTIONS

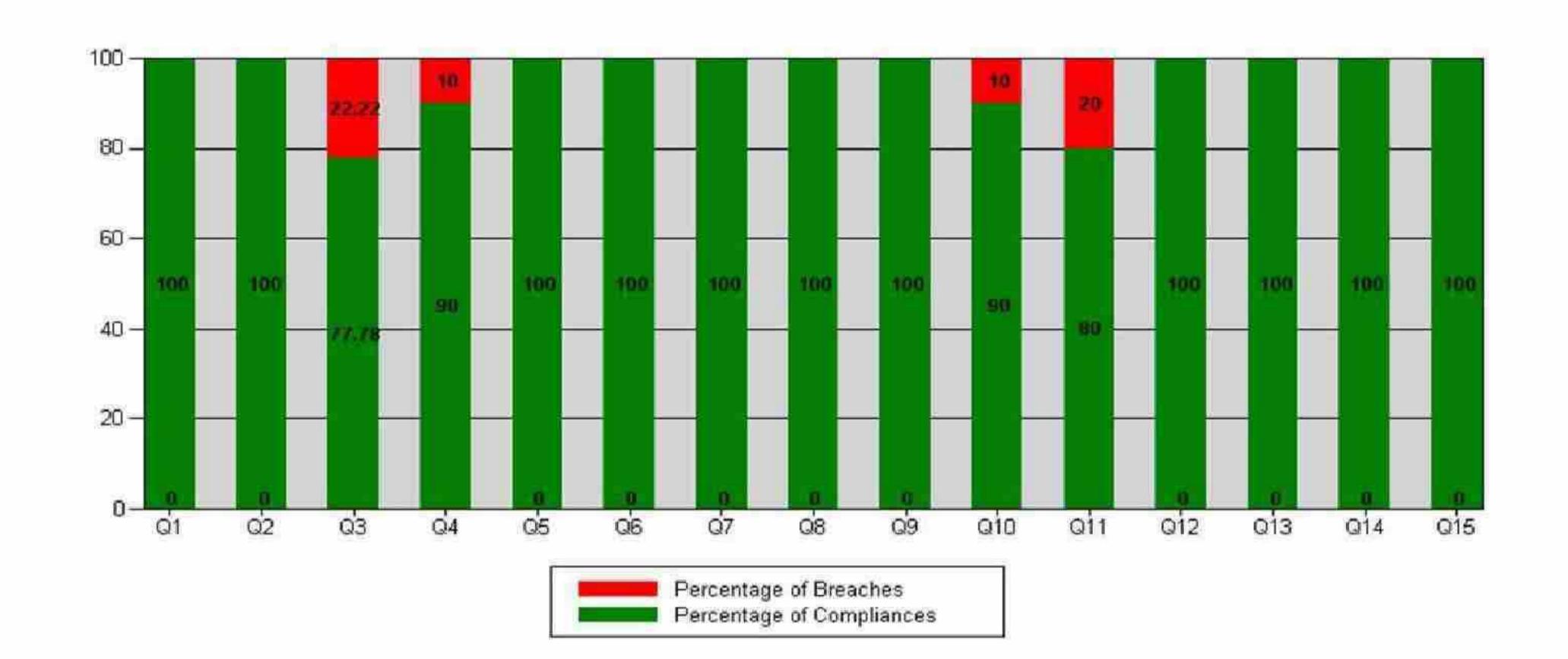
Period 1 (previous period)





Period 2

CoCP compliance was recorded at 95% during Period 2





O1 Hours of Mark
Q1. Hours of Work
Q2. Notification
Q3. Notices
Q4. Fencing and Hoarding
Q5. Noise
Q6. Waste Management
Q7. Waste Water and Run-Off
Q8. Water
Q9. Emergency Access
Q10. Parking
Q11. Litter and general housekeeping
Q12. Dust
Q13. Smoking
Q14. Members of the Public
Q15. PPE and Behaviours

Record: CR8235.3

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Project Report – Period 2

Summary of issues and action taken

No	Date of Inspection	Location	Contractor	Question Number	Issue detail	Action taken or required to be taken by contractor	Date to rectify or rectified
	11/05/12	Haymarket Tramstop	Grahams	11	Site tidiness issues due to litter/debris etc	General tidy up of tramstop area	Closed 11/5/12
	14/05/12	Carrick knowe Bridge	Expanded	4	Access scaffold at Carrick Knowe Bridge displaying out of date scaf tag.	Scaffold has been inspected inspected - scaf tag updated	Closed 14/5/12
41	15/05/12	Crawley Tunnel	McNicholas	3	No sign present	Sign erected	Closed 15/5/12
	16/05/12	S26 South Gyle	BBS/Expand ed	3	Public information signs to be displayed.	Signs to be obtained and erected	31/5/12
	16/05/12	South Gyle S26	BBS/Expand ed	10	Vehicles parked on verge outside fencing.	Contractor to prevent parking in unauthorised areas	Closed 16/5/12
	23/05/12	Murrayfield SC21	Grahams	11	Toilets, canteen and drying room require to be cleaned.	Welfare facilities cleaned	Closed 23/5/12

Record: CR8235.3 Revision No.: 3/0 ELECTRONIC COPY – UNCONTROLLED IF PRINTED



		operations				- II	UVE	
3rd Party Con	Sents	Hems to be addressed in Document	Current Status	Current Activities Plan	Risks if not resolved	Action Owner	Action with	Target Date to Close Out
Network Rall - Asset Protection Agreement	Construction	This document governs the design approvals and permits to work consents along the Rallway Corridor between Haymarket and Edinburgh Park.	The existing APA period expired on 30 June 2011, the requested an extension as is permitted under the Agreement and NR have requested additional funding confirmation, and have indicated they may wish to review the obligations of this agreement. At present the revised APA has not been executed, but access to the site is available to BB:	Revised documentation now issued to NR for acceptance, Nr have now responded with comments and revised fee forecast. Draft wording has now been agree and provided to Network rail for acceptance.	Possible delay risk if NR refuse BB access to the site. To date the Contractor's WPPs have not consistently been submitted to the required standard expected of NR, so the risk remains that NR may seek to revise the APA terms to reflect and Outside Party Role, rather than a Third Party Role. This affords NR greater control over activities on or near the railway network.	Alas	stwork Rail	Jun-12
Substation Wayleaves - Haymarket	Construction	Substation lease agreement between CEC and leaseholder of NR owned land		enter into lease drawdown with NR and then sublease to SP. Draft wording is now with SP for agreement	Potential BSC design change and delay to construction if not resolved:	Alasdair Sim S	ottish Power	Jun-12
Substation Wayleaves Cathedral Lane Network Rall - Bridge	Construction	Standard substation lease agreement Agreement to define responsibilities in relation to the	CEC are awaiting final drawings from BBS to enable the wayleave to be progressed. Details to be agreed in static. CEC have not progressed communication with ORR. CEC to re-engage in the process. CEC have	BBs to provide cable route defalls with spare capacity, site meeting to be held on the 7th March, SP to provide duct requirements to Rob Leech meeting now due with SP early April Action on CEC to correspond with ORR - AS to raise this with CEC Legal Services (fain Strachan) this will follow the agreement	ents Design delay risk if not resolved enter the services without an executed Bridge Agreement (Carrick Knowe and Edinburgh	Alasdair Sim Ci Alasdair Sim Oi	2 2	Aug-12. Aim to move negotiations forward during Q1 2012.
Agreement Network Rall - Oberating	Operations	Carrick Knowe and Edinburgh Park Bridges An agreement setting out key lines of	confirmed the fixed price appointment of HBJ-GW NR have reverted on the draft agreement. There is a clause in the draft for the definition of a CEC cap for	of the APA. Action on CEC to correspond with ORR - AS to raise this with CEC Legal Services (fain Strachan)this will follow the agreement	Park) LR cannot operate bassenger services without	Alasdair Sim	Network Rail	Rimto move negotations folward during 01, 2012.
Agreement		communication and responsibilities between the tram operations and the national rall network	rom delay to the railway betwork caused by tram - this again opens up the indemnity igreement. NR have responded to the insisting that they will not accept a cap - this is with the bridge agreement. The point has been passed over to CEC to take up with the response as yet on progress made with TB.	of the APA.		19		
Network Rail - EMC and Immunisation approval			Testing and report to be issued on completion		tan Netw	502	3S Michael Wilken	M id 2013
Edinburgh Airport Ltd - EM© approval			issued on completion		LB cannot operate passenger services without		BBS Michael Wilken	M1d 2013
90 7	Compensation	Payment to Indemnify FSR and NR against loss of car parking at Haymarket Station Car Park	No of parking spaces affected is agreed with NR and FSR.	The matter cannot be completely closed out until BSS complete the works and the timeline over which compensation applies cabe defermined. The programme is now 18 months overdue in this area	댦	Alasdair Sim Cl	93	nknown at this point. Construction programme not agreed/completed.
Network Rail - Servitudes	Eand	Various servitude arrangements to be entered into between CEC and NR. These are all agreed and	HBL-GW appointed, work can get underway in registering these servitudes	HBJ-GW are ready to submit documents to NR - awaiting Robert Little to confirm NR legal Advisor	HBJ-GW have forwarded servitude documents to NR's legal advisor.	Alasdair Sim Ni	stwork Rail	M id 2012
Gogarbum Tramstop Costs (RBS)	Construction	Set out in the Framework Agreement Agree design and construction costs with RBS for the Gogarburn Tramstop	d are currently under review.	Await RBS response and move to a commercial settlement on that basis.	Licence in place, but RBS agreement on payment of costs would be advised before works start, otherwise CEC could become embroiled in a later dispute with RBS	ur.	SB	Mid June 12
Compensation - NIL Section 21 Agreements - SW -	Land	Compensation as a result of CPO of land Souttish Water approval	Negotiations underway between the former landowner and CEC Review been under take of all sewer crossing along the off street section of the route 2 required.	CEC have initiated the CAAD process in West Edinburgh Draft wording for Edinburgh gateway with Scottish water, draft working for Haymarket with Network rail.	No project risk as this is a compensation matter. Delay to formal approval from Scottish water	Alasdair Sim Si Alasdair Sim Si	SWINR	Unknown - depends on claimant Mid July 12
Technical Inf	ormatives					-		
8 tramsi	Design	Location drawings to be provided	comment 4886	This informative will be closed section by section. Meeting to be arranged week 16th April to agreed section 7.	Final agreement will not be obtained if not resolved	Robin Soodwin	BBS Michael Wilken	Apr-14
35 Dublin Street steps	Design	Details of steps, cycle ramp and guardrail/handrail requirements to be reviewed in consultation with CEC	Del la	Design with SDS (3 months Listed building process) SDS to issue technical design by 12 June 2012.	Construction delay risk if not resolved	Robin Goodwin Bl	3S. Simon Nesbitt	Jul-12
72 Earthing and Bonding details	Design	Full details of any earthing and bonding requirements that impact on CEC infrastructure need to be provided for review and approval	Comment 11500 to be closed	Design with SDS, mock up of lamp column installation to be considered, aftertion should be given to Princes street interface CEC have commented on the submission. Revised submission required. Minutes of meeting to be issued, with product information on the pedestrian railings proposed.	Construction delay risk if not resolved	Robin Goodwin Bi	3S Michael Wilken	Jun-12
Planning, Consen	ts, Variations &	Informatives						
5417 (50)	Edinburgh Park Overbridge	Change to cladding material on north abutment from natural sandstone to reconstituted block	Side agreement with New Edinburgh Limited stipulates use of natural stone for the north abutment. No requirement to vary if to be implemented in line with original consent. Meeting with New Edinburgh Ltd scheduled held 3/08/11 — comparative costings between natural stone and reconstituted stone BBS to confirm	BBS to provide confirmation of material details to comply with planning requirements.	Construction delay if not resolved	Frances Newton B	38. Simon Nesbitt	Jun-12
5/07	Roseburn Street Bridge/Retaining wall – Amended design	Change to the alignment of retaining wall to take account of utilities	8DS advised of need for Planning variation following design changes – change should be formalised prior to construction. BBS to confirm timescales.	Awaiting further details from BBS on schedule.	Design delay if not resolved	Frances Newton Bi	3S Simon Nesbitt	Jun-12
10%	NEW* Reinstatement of Hearts Memorial foundation design	- Relates to informative applied to original approval	No provision made for this in technical design. Needs to be progressed to ensure full design integration with utilities. Mains power supply also required. Timescale - tbc	Revised design now issued. T&T to provide service information to CEC.	Design delay if not resolved	Frances Newton Re	do Leech	M ay-12
W(7 (10))	Shandwick Place Tram Stop		oosal for the walls signed off by CEC Planning, 21/0711 Letter stipulates and to be provided by BSC, information to be provided to cover afterations angements in event of damage/collapse.		nstruction d	-	38. Simon Nesbitt	Jun-12
1/15	NEW* St Andrew Square – Public Realm Upgrading	Design development to Stage E. Full Planning required. A Iso requires road approval.	Ti-	BBS to provide updated design for records	Design delay if not resolved	Frances Newton BB	38 Simon Nesbitt	Jul-12
1/13 (1C)	Dublin Street —Works to listed retaining walls and railings	Listed Building Consents and Full Planning	Revised design proposals for steps and ramp currently being developed by SDS_LBC's required for afterations to wallstrallings on western and eastern sides of street. Feedback to be sought from Historic Scotland prior to finalising submissions. Details now submitted formally	Awailing planning meeting 20th June, further discussion required with land owner.	Design delay if not resolved	Frances Newton Bl	BBS Simon Nesbitt	Jul-12
Planning variations	Design	Roseburn Detta	Proposal to be constructed by BBS, further agreement may be required by CEC.			Frances Newton SI	irley Mushet	Jun-12
Offication of Development	Construction	Letter to be issued to third party	Schedule to be developed	CEC to provide Schedule.	Delay to construction	Andy Conway Fr	ances Newton	Jun-12
Roads	Road Safety Audits	Section 1G		CEC to review submission from BBS	Delay to hand back and opening		3S Simon Nesbitt	Jul-12
Roads Approvals	Road Safety Audits	Section 1D	Items to be closed by BBS Items to be closed by BBS	CEC to review further information from BBS when received	Delay to hand back and opening	Andrew Renwick Ci	C Andrew Renwick	Jun-12
Roads	1.0	Section 50		CEC to review submission from BBS and complete exception report	Delay to hand back and opening	Andrew Renwick Cl	C Andrew Renwick	Jun-12
Roads Approvals	Road Safety Audits	Section 7A	to be closed by BBS	review submission from BBS and complete exception report	to hand back and openir	Vick	BBS Simon Nesbitt	Jun-12
Roads Approvals	TRO'S	System wide		The current TRO's expire in October 2012, a new date needs to be agreed with CEC and the application expended.	Delay to opening	Andy Conway Cl	EC both MicCafferty	Jun-12
Depot Hadio Mast	Depot radio mast	Section (A	Dossing a submission	summission currently being malized	Detay to construction		do shabu Dedrar	7(L-Un)
Legal Agreem	ents Clause 28.7 (form at Part F of Schedule	teral warran	THE JOHN GRAHAM (DROMORE) LTD AND EXPANDED LTD WARRANTIES ARE BEING FINALISED FOR	John G		Key Sub-	Kevin Russell	7.Jun-12.
Warranty	Part 8 and Appendix 8 of Schedule Part	276 (271) 1981	SIGNING. THERE IS AN ONGOING OBLIGATION ON INFRACO TO OBTAIN SUB-CONTRACTOR COLLATERAL WARRANTIES FROM: (1) DESIGNERS; (2) OHLE INSTALLERS; (3) SYSTEM INTEGRATORS; (4) TRACKWORK SUPPLIER INSTALLERS; (5) MAJOR CIVILS WORKS CONTRACTORS; (6) PILING CONTRACTORS; (7) GROUND STABILISATION SPECIALISTS; (8) SPECIALIST TELECOMS/SIGNALLING SUPPLIERS; (9) TESTING AND COMMISSIONING SPECIALISTS, AND (10) E+M INSTALLERS; THESE SHOULD BE OBTAINED AS NEW SUB-CONTRACTS ARE PROCURED] Schedule of warranties to be provide by BBS.	Grahan		Contractor, Infraco and beneficiary		
Program Software Escrow Agreement	Clause 102.15	Within 30 days of the accepting the programs that infraco will provide under the infraco Contract, infraco must place the source code in escrow with the NGC Groun of Manchester Technology (or		Siemens to provide details of agreement by April 12		CEC, Infraco and escrow provider	Patrick Scully	Jun-12
TSA Reliability Bond	On the certification of the twenty seventh Certificate of Tram Commissioning CAF must provide a reliability bond for 5% of the Aggregate Tram Price (approx £2,789,081,65).	Clause 44.3 and part A of Schedule 10.	TIEVCEC	Bond provider	THIS BOND SHOULD BE PROVIDED ON THE ISSUE OF THE TWENTY SEVENTH CERTIFICATE OF TRAM COMMISSIONING.			





		Required to be resolved before operations.						
		Critical for construction between Airport and York Place						
		Not critical for construction or commencement of						
MARLOW ASSESSMENT HARRING PARKET		operations					LIVE	
Agreement/Document	Area of Interest	Items to be addressed in Document	Current Status	Current Activities Plan	Risks if not resolved	Action Owner	Action with	Target Date to Close Out
	A collateral warranty to be granted by the							
	Tram Supplier to tie, CEC, Transport					4		
A Tram Supplier	Scotland, TEL and any other reasonable					4		
lateral Warranty	party at the request of the Client.	Clause 44, 5.	CAF, tie/CEC, Transport Scotland, TEL and any other parties receiving the collateral warranty.	CAF, tie/CEC, Transport Scotland, TEL and any other parties receiving the collateral warranty.	STATUS OF THE COLLATERAL WARRANTIES TO BE CONFIRMED BY CECLITAT.	4		
	provided by CAF under the TSA, CAF mu					3	3	
	place the source code in escrow with the					4		
	NCC Group of Manchester Technology (o					4		
	another escrow agent), the is required to					4		
	enter into a standard escrow agreement for	OF .				l		
	the escrow services. All costs will be met				TO BE SIGNED WITHIN 30 DAYS OF TIE ACCEPTING SOFTWARE FROM CAF. SEE PREVIOUS NOTE ON	A		
A Escrow Agreement	Where the Tram Requirements	Clause 51, 19,3 and Schedule 8	CAF, tie/CEC and NCC	CAF, tie/CEC and NCC	THIS ISSUE RELATIVE TO THE INFRACO CONTRACT.	4		
	Specification (see the Tram Employer's					4		
Sub-Contractor Direct					DEPENDENT ON SUB-CONTRACTING ARRANGEMENTS. T&T TO CONFIRM WHAT IS SPECIFIED IN THE	Al /		
eement	Contractor Direct Agreement is required,	Clause 69.8 and Schedule 18.	Sub-Contractor, tie/CEC and CAF	Sub-Contractor, tie/CEC and CAF	TRAM EMPLOYER'S REQUIREMENTS	A_{-}		
SALIGORE	A performance bond to be issued by CAF	In	Today votat worst, siervice vota	Town Commonstration of the Common of the Com	A DOWN CHO CONTROL MESSAGEMENT OF			
	the event that any part of the TMA is	2004				4		
	assigned, novated or otherwise transferred				ONGOING OBLIGATION DEPENDENT ON RELEVANT ASSIGNATION OCCURRING. TIE/CEC TO NOTE	4		
A Performance Bond	by the tie after the date of commencement	t Clause 46.1 and part 1 of Schedule 23.	N/A	Beneficiary and surety	IN THE CONTEXT OF POTENTIAL FUTURE INVOLVEMENT OF THE OPERATOR.			
	Collateral warranties to be granted at the							
to The control for the desired and assured	tie's request by CAF in favour of CEC,					4		
A Tram Maintainer	Transport Scotland, TEL and any other	10 7 4 4 4 4 4 4 4 5 4 6 0 4 4 4 4 4 4 5 7	OAT BUILDO THE ROLL OF SHARE TELESCOPE AND SHARE ADMINISTRATION OF SHARE	WAR HAVE TO TO THE OWNER THE WAR AND SHEET AND	OTATIO OF THE COLUMN TERM HAVE BRANTIED TO DE COMEIRM EN DY OF CATATI	4		
ateral Warranty	party reasonably requested by the tie. Within 30 days of tie accepting any	46.4 and part 2 of Schedule 23.	CAF, tie/CEC, Transport Scotland, TEL and any other parties receiving the collateral warranty.	CAF, tie/CEC, Transport Scotland, TEL and any other parties receiving the collateral warranty.	STATUS OF THE COLLATERAL WARRANTIES TO BE CONFIRMED BY CEC/ T&T	*		
	programs produced by CAF under the					4		
		Clause 50, 21 and Schedule 8 (of the Tram Supply			TO BE SIGNED WITHIN 30 DAYS OF TIE ACCEPTING SOFTWARE FROM CAF. SEE PREVIOUS NOTE ON	4		
Escrow Agreement	escrow with the NCC Group of Mancheste		CAF, tie/CEC and NCC	CAF, tie/CEC and NCC	THIS ISSUE RELATIVE TO THE INFRACO CONTACT:	4		
	Where the Tram Maintenance Specificatio	OR CONTRACTOR OF THE PROPERTY						
00000000000000000000000000000000000000	(see the Tram Employer's Requirements)					4		
A Sub-Contract Direct	indicates that a Sub-Contractor Direct	MARKO COMPANYO CONTRACTOR PROPERTY		PACKATEGORE DA LIMITAN CARANTAN EL PACKATAN	DEPENDENT ON SUB-CONTRACTING ARRANGEMENTS. T&T TO CONFIRM WHAT IS SPECIFIED IN THE	A /		
reement	Agreement is required, the CAF must	Clause 57.6 and Schedule 6	Sub-Contractor, tie/CEC and CAF	Sub-Contractor, tie/CEC and CAF	TRAM EMPLOYER'S REQUIREMENTS.		1	



Appendix 3 - Cost Report and Contingency Analysis

City of Edinburgh Council



Reporting Period: 12-02 - Rev 0 - 25/05/2012

Section 1 - Project Summary

												1						
		Bud	dget Informati	on		Committed				Forecast			Third Party (Contributions	Vari	ance	Actu	ials
	A B C=A+B		D	E	F = D + E	G	Н	Ĭ	j	K=F+G+H+I+J	Ĭ	M = K - L	N = M - C	O=M/C-1	P	Q.		
		Original Budget	Budget Variation	Current Budget	Original Contract Value	Approved Contract Changes	Current Contract Value	Changes in Progress	Anticipated Change	Opportunities	Risk / Mitigated	Anticipated Final Cost	Estimated Contribution Value	Anticipated Final Project Cost	Budget Variance (Value)	Budget Variance (%)	COWD to Date	Outstanding Amount
	Edinburgh Tram Programme	500,154	o	500,154	479,660	3,873	483,533	9,850	11,997	0	5,000	510,380	-7,957	502,423	2,269	0%	367,501	116,032
1	Infraco - Off Street	360,060	-2,407	357,653	362,501	-2,407	360,094	10,292	180	0	0	370,566	-6,534	364,032	6,379	2%	290,981	69,113
2	Infraco - On Street	38,817	1,414	40,231	47,384	1,414	48,798	-442	513	0	0	48,869	-1,423	47,446	7,215	18%	10,405	38,393
3	Infraco - Other	3,218	0	3,218	3,218	0	3,218	0	0	0	0	3,218	0	3,218	0	0%	694	2,524
4.1	Utilities (Post Mediation)	1,812	5,461	7,273	1,812	5,461	7,273	0	7,917	0	0	15,190		15,190	7,917	109%	7,168	105
4.2	Legacy Utilities (Revised Tram Route)	0	500	500	0	500	500	0	687	0	0	1,187		1,187	687	137%	614	-114
4.3	Legacy Utilities (Leith Walk)	1,100	-1,100	0	1,100	-1,100	0	0	2,700	0	0	2,700		2,700	2,700		0	0
5	Tram vehicles	62,400	5	62,405	63,645	5	63,650	0		0	0	63,650		63,650	1,245	2%	57,639	6,011
6	Project Management (refer to CEC Repor	rt)	0	0			0					0		0	0			
7	Preparing for Operations (refer to CEC Re	eport)	0	0			0					0		0	0			
8	Specified Risk Allowance	32,747	-3,873	28,874	0	0	0	0			5,000	5,000		5,000	-23,874	-83%	0	0

Comments:

Report excludes Enabling work packages reported under T19 and utilities reported under T18

Contributions include amounts relevant to reported budgets only. Any further contributions are reported by CEC.

Risk:

QCRA as last presentation - slides 18 May 2012

Actions

Ongoing risk mitigation of major risks.

Realisation of opportiunities associated with specification reductions (road surfacing) and time (York Place)

City of Edinburgh Council



Reporting Period: 12-02 - Rev 0 - 25/05/2012

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Infraco Cost Report Section 1 - Commercial Summary

		Buc	lget Informat	ion		Committed				Forecast			Third	Party	Vari	ance	Acti	uals
		A	В	C = A + B	D	E	F = D + E	G	Н	Ī	J	K=F+G+H +I+J	Ĺ	M = K - L	N = M - C	O = M / C - 1	P	Q
		Original Budget	Budget Variation	Current Budget	Original Contract Value	Approved Contract Changes	Current Contract Value	Changes in Progress	Anticipated Change	Opportunities	Risk / Provision	Anticipated Final Cost		Anticipated Final Project Cost	Budget Variance (Value)	Budget Variance (%)	COWD to Date	Outstanding Amount
	Infraco Contract	402,095	-993	401,102	413,103	-993	412,110	9,850	693	0	0	422,653	-7,957	414,696	13,594	5.37%	302,080	110,030
	Off Steet	360,060	-2,407	357,653	362,501	-2,407	360,094	10,292	180	0	C	370,566	-6,534	364,032	6,379	3.61%	290,981	69,113
00	Preliminaries and Other Items	150,408	398	150,806	150,409	398	150,807	4,541	30	0		155,378	0	155,378	4,572	3.03%	115,602	35,205
01	Newhaven Road to Haymarket	85,368	-2,469	82,899	87,738	-2,469	85,269	1,441	0	0		86,710	-318	86,392	3,493	4.60%	90,821	-5,552
02	Haymarket Corridor	8,692	-8	8,684	8,692	-8	8,684	0	0	0		8,684	-14	8,670	-14	0.00%	6,444	2,240
05	Roseburn Junction to Gogar	80,035	-226	79,809	80,105	-226	79,879	4,251	150	0		84,280	-5,162	79,118	-691	5.60%	46,692	33,187
06	Depot	19,979	190	20,169	19,979	190	20,169	92	0	0		20,261	0	20,261	92	0.46%	19,452	717
07	Gogar to Edinburgh Airport	15,578	-292	15,286	15,578	-292	15,286	-33	0	0		15,253	-1,040	14,213	-1,073	-0.22%	11,970	3,316
	On Street	38,817	1,414	40,231	47,384	1,414	48,798	-442	513	0	C	48,869	-1,423	47,446	7,215	21.47%	10,405	38,393
00	Preliminaries and Other Items	21,837	87	21,924	21,837	87		21	0	0		21,945	0	21,945	21	0.10%	6,157	
01	Newhaven Road to Haymarket	16,980	1,327	18,307	25,547	1,327	26,874	-463	513	O		26,924	-1,423	25,501	7,194	47.07%	4,248	22,626
	Other	3,218	0	3,218	3,218	o	3,218	0	0	0	C	3,218	0	3,218	0	0.00%	694	2,524
00	Maintenance & Mobilisation	2,205	0	2,205	2,205	О	2,205	0	0	0		2,205	0	2,205	0	0.00%	694	1,511
00	Spare Parts	1,013	0	1,013	1,013	0	1,013	0	0	0		1,013	0	1,013	0	0.00%	0	1,013

Comments:

Summary sheet values in £k. All other sheet values in £. Opportunities include for time saving based on current QSRA. Excludes £3.2m phase 1b payment (refer to budget T19.C)

Risk

Refer to Risk register for risks identified against infraco programme All risk is held at programme level. This section of the cost report makes no allowance for risk.

Refer to the outputs of the QCRA/QSRA for further information on risk.

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100				4.0	

City of Edinburgh Council



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Infraco Cost Report Section 2A - Approved Change - Clause 80

TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
501	Hawthornevale Cycle Link - Change the design to widen the footway alongside the south side of Lindsay Road	20,021	20,021	0		01	01
502	Amend the design of Ocean Drive to reinstate the footpath to the north of Ocean Drive	10,231	10,231	0		01	01
503	OLE temporary portals at depot access bridge to allow finalisation without Edinburgh Gateway	67,646	67,646	0	Edinburgh Gateway funding	05	01
504	Review of the banned right turn into Blenheim Place as part of the design for Section 1C2 roads	46,247	46,247	0		01	01
505	York Place Terminal Point - Production of a feasibility report, initial feasibility design for option ii), run time modelling etc	228,653	228,653	0		01	01
506	Design for providing a new cycleway from the Mound to Princes Street	9,437	9,437	0		01	01
506.1	Design for providing a new cycleway from the Mound to Princes Street	1,669	1,669	0		01	01
507	Provide a clarification report and completion of the St. Andrew's Square Public Realm design	133,075	133,075	0	Included within contributions	01	01
508	Obtain EAL approval for the highways design drawings at Eastfield Avenue tram crossing	10,025	10,025	0		07	01
509	Design of Cathedral Lane Substation	233,596	233,596	0		01	01
511	Storm Water Connection from Gogar Lodge to the landowners new septic tank	5,750	5,750	0		05	08
512	Re-design of Ocean Terminal Bypass Road	53,685	53,685	0		01	01
513	Revised design to minimise utility diversions / conflicts - used for slit trenching and trial holes	156,870	156,870	0		01	08
514	Utility Mapping	92,756	92,756		Time chargeable costs. L&M Surveys and Class One. Complete	01	08
516	Additional Water main requirement at Depot and Mini Test Track	51,282	51,282			06	08
517	Additional BT Ducts at Depot and Mini Test Track	2,996	2,996	0		06	08
520	Valve chamber access and alteration works to 800mm water main at the Depot	105,326	105,326	0		06	08
526	Airport to Gyle - Tram Delivery Temporary Works	6,878	6,878	0		07	08
529	Design Gogar Castle Access Road tram crossing and approaches	31,308	31,308	0		05	08
530	Amend the design of the Depot Road turning head as per RDC191. Option 2	30,458	30,458	0		06	08

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TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
531	Edinburgh Gateway - Advance Temporary Works design	9,349	9,349	0		05	08
534	SP Insurance Ducts - Install Insurance ducts at various locations	5,637	5,637	0		07	08
536	System Wide - Tramstop Cabinets - reduction in 10 years maintenance liability	0	O	0	No saving to contract	01	08
538	Depot - Tramwash Continuous Mode - Requirement for additional hand lances washers	0	0	O	Change rejected - included within contract	06	08
540	Section 7 - Plot 304 - Omit Landscaping works	-201,120	-201,120	0		07	08
544	Extension to Edinburgh Park Office to accommodate CEC / Transport Scotland	159,900	159,900	0		00	08
550	Shandwick Place OLE & Landscape Design Revision	0	0	0	Design costs to be grouped under the 562 (BBS PMC 045)	01	08
553	SDS to provide the services of Matt Fell until August 2012	110,000	69,131	40,869		00	01
558	Site Wide - Provision of a CAD Technician	1,693	1,693	0		01	08
559	Detailed Design of York Place	56,438	56,438	0	tnc issued - awaiting BBS estimate	01	08
561	Omit all works at the Forth Ports area	-2,443,000	-2,443,000	0	Work deleted from scope.	01	08
562	On Street Generally - OLE Design Changes for On Street Section (PMC 045) - SIEMENS DESIGN WORKS	135,000	20,000	115,000	Includes original tNC 550, 555, 563	01	08
563	On Street - Amend pile caps from square / rectangular to circular	0	5,000	-5,000	Design costs to be grouped under the 562 (BBS PMC 045)	01	08
564	Worksite Modelling - (TM)	10,000	10,000	0	34.5	01	08
565	Advanced design works for Edinburgh Gateway Minimum Option	2,650	2,650	0		05	08
565.1	Advanced design works for Edinburgh Gateway Minimum Option	3,350	3,350	0		05	08
566	On Street Generally - Ducting Design Changes Due to Utilities Conflicts	10,000	10,000	0		00	08
567	On Street Generally - Drainage Design Changes Due to Utilities Conflicts	50,000	10,000	40,000		00	08
568	On Street Generally - Trackform Design Changes Due to Utilities Conflicts	10,000	10,000	0		00	08

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TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
569	Additional Running Costs associated with the extension to the Edinburgh Park offices	79,200	79,200	0		00	08
572	Cathedral Lane Substation - Retaining Wall Design	31,013	31,013	0	Value based on submitted estimate from BBS	01	08
574	Haymarket Station - Delete viaduct cladding	-10,000	-10,000	0		02	08
576	Depot - Reinstatement to 250mm Water main Remedial Works	36,788	36,788	0		07	04
577	Haymarket Viaduct - Deletion of Sub Station Retaining Wall and Plinth	1,580	1,580	0		02	08
578	SI Provisional Sum Allowance	-57,984	-57,984	0		01	08
580	Cancellation of trackwork materials York Place to Newhaven	-1,100,000	-1,100,000		Change resulting from value engineering exercise	01	08
581	Omit Siemens work to Tower Place and Victoria Dock bridges	-100,000	-100,000		Change resulting from value engineering exercise	01	08
582	Delete proposed cladding installation costs on Roseburn Viaduct Structures	-308,004	-308,004	- 1990.4	Change resulting from value engineering exercise	05	08
585	Descope of Service Vehicle	-21,565	-21,565	0		00	08
589	Descoping airport tramstop kiosk and canopy	-150,000	-150,000	0		07	08
591	Diversion of Scottish Power Cable at Haymarket Viaduct	21,789	21,789	0	NR contribution	05	08
595	Haymarket Viaduct - Deletion of fitting out of Crew Relief Facility	-74,001	-70,000	-4,001	Assume credit from NR (yet to be established)	05	08
597	Section 1D - Omit disconnection of Bus Tracker	-14,928	-14,928	0		01	08
602	Omit purchase of poles for PIDs North of York Place	-23,740	-23,740	0		01	08
613	Temporary Bus Station at St Andrew Square/Waterloo Place - design	50,000	50,000	0		01	08
615	Haymarket Viaduct - design wall for blocking off void under the bridge deck as a result of the crew relief facility being omitted	3,000	3,000	0		05	08
616	Haymarket Viaduct - construct wall for blocking off void under the bridge deck as a result of the crew relief facility being omitted	10,798	10,000	798		05	08
617	Tram stops branding changes. Requirement for etched glass to be confirmed	0	0	0	Value TBC	05	08
Total		-2,408,247	-2,595,913	187,666			