

Edinburgh Tram Project

Scottish Water Closeout Report

Version	Date	Status	Comments
1	29/05/13	V1	SJ/AS Update
2	07/06/13	V2	SJ/AS Update
3	17/06/13	V3 – SW Issue	SJ/AS/MMack Update

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Summary

This report sets out the current issues in relation to the Scottish Water interface on the Edinburgh Tram project. The report sets out the current status of each issue and the position proposed by CEC. There are currently forty five issues in *Table 1 – Issues List* below.

SW and CEC acknowledged at a meeting on 14th May 2013 that a process was required to resolve the remaining outstanding issues. The meeting agreed a process to crystallise the areas of disagreement and promote resolution through a meeting of the principals from SW, CEC and Transport Scotland. The agreed resolution process was as follows:

- All parties to agree the areas of dispute.
- Position papers to be issued within 21 days.
- Parties to respond to the position papers within 14 days.
- Principals to meet within 7 days of the responses being received.

SW and CEC subsequently met on 29th May 2013 to discuss the issues of legal and contractual dispute. These issues were agreed on 31st May 2013. As a result of this agreement the following timescales have been established:

- Position papers to be issued on 21st June 2013
- Responses to position papers to be provided by 5th July 2013
- Principals meeting to take place by 12th July 2013

On 12th June CEC notified SW that the issues to be resolved would be widened to include areas of technical difference. As a result this report provides details of the final position promoted by CEC with respect to the outstanding technical matters.

Please note the positions established by CEC are based on the information made available by **tie** to CEC.

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Table 1 - Issue List

Item	Location	Issue	Design/Construction Works Required	Tram Position
1	General	Buildover Agreements Requirements for On and Off Street Buildovers to be agreed between the parties.	None envisaged.	Buildover Agreements only applicable to Off Street sewers. CEC to issue position papers 1,2 & 3 in accordance with agreed Legal/Contractual Key Issues Document V1 31 st May 2013. (Appendix A)
2	General	Deeds of Servitude	None envisaged.	Agreement reached in principle: CEC/SW legal to close out. Target Close out by 30 th June 2013.
3	General	Potential non-compliance and inoperability of Fire Hydrants	Requirement to carry out minimal fire hydrant works to inoperable fire hydrants.	Agreed residual construction issues to be completed by 26 th July 2013 in accordance with the enclosed fire hydrants walkover (Appendix B) report. This includes the following items and will ensure all hydrants supplied by the tram project are fully operable: <ol style="list-style-type: none"> 1. 7/9 Leith Walk – Buried Hydrant 2. 150 Leith Walk – Asset Loose Within Chamber 3. 19 Leith Walk – Buried Hydrant 4. 26 West Maitland Street – Clean Out Chamber 5. Ocean Drive – Hydrant at 800mm Deep 6. 14 Constitution Street - Abandonment CEC to obtain confirmation that hydrants supplied by Carillion are BS750 compatible.
4	General	Legacy Utility Handover	Survey works will be required to assist in the clarification of the MUDFA As Builts	Legacy H&S File: Legacy H&S File information does not meet SW standard requirements.

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Item	Location	Issue	Design/Construction Works Required	Tram Position
				<p>Tracker of items missing from Scottish Water standard requirements to be issued by 31st July 2013.</p> <p>CEC propose that SW manage the remaining legacy H&S issues including provision of outstanding as built details to 6no. manholes (specific details to be provided in report of 31st July 2013). CEC has included a sum within the legacy commercial settlement for SW to carry out the outstanding survey works.</p> <p>Legacy Handover Packs:</p> <p>QA Checklist for each handover Pack identifying items missing from Scottish Water standard requirements to be issued by 30th June 2013.</p> <p>On the basis that no further information is practically available, CEC propose that SW accept the legacy handover packs as provided.</p>
5	General	<p>Post September 2011 Utility Handover Packs</p> <p>McNicholas works</p> <p>B&S utility works</p>	None envisaged	<p>Individual asset completion certificates should be signed off based on handover/H&S file information associated with utility works only. CEC propose a defects period to SW that is back to back with the provisions of the CEC contract with McNicholas and B&S. SW has responsibility for operations and maintenance when the asset is made live not when completion certificate is signed.</p> <p>CEC position papers 12, 13 and 14 enclosed in Appendix C confirms the specific detail of the proposals.</p>

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Item	Location	Issue	Design/Construction Works Required	Tram Position
6	General	Legacy Commercial (OIS 293 - 309 inclusive): Agreement on commercial close and final account	None Envisaged	For details of Legacy commercial proposal see details provided in Appendix D
7	General	Post Sept 2011 Commercial: Agreement of commercial close and final account for works post September 2011	None Envisaged	For details of Post September 2011 commercial proposal see details provided in Appendix D
8	General	SW Staff Resourcing: Agreement of SW staff resource based on current workload and the agreement of the project ramping downwards CEC/SW to agree SW resourcing to be closed down generally by end June 2013 with	None Envisaged	SW resource forecast post June 2013 will follow the details outlined in letter reference OSW.129.AS. This letter limits SW resource to the close out of the remaining McNicholas and B&S utility works including handover.
9	On Street	Lead Replacement works on Edinburgh Tram Project.	None Envisaged	CEC confirm SW has the obligation to carry out the lead replacement works as a result of the diversion works carried out on the Edinburgh Tram project. Please refer to letter reference OSW.079.AS dated 21 st January 2013 for specific details of Tram position. This can be found in Appendix E

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Item	Location	Issue	Design/Construction Works Required	Tram Position
10	Dublin Street Steps	The cover to the existing SW pipe has been increased by the construction of the Dublin Street steps.	None Envisaged	SW/CEC to reach final agreement on an indemnity for the additional cost of maintaining/replacing the water main under the Dublin Street steps. Agreement reached in principle: CEC/SW legal to close out. Close out by 30 th June 2013
11	Princes Street	Technical Derogations (Princes Street) CEC/SW to reach agreement on list of derogations.	None Envisaged	Technical Derogations CEC will provide a suitable indemnity for the derogations detailed in Appendix F. CEC confirms it does not accept that the non diversion of assets out with the DKE + 2m constitute a technical derogation. CEC confirm that the agreed scope of works which included leaving deep sewers within the DKE+2m takes precedence over any previous intent. Position paper 10 included in Appendix G provides more specific details of CEC's position. CEC has constructed a new manhole in Princes Street gardens to provide improved access to clear sewer blockages following construction of the trackslab over an existing sewer node (5919). CEC confirm no manhole will be provided outside the Jenners store as the tram infrastructure has not made a material difference to the manhole access provisions that existed prior to the tram project.
12	Site Wide	Cost Neutrality	None Envisaged	There is no specific requirement in the NRSWA

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Item	Location	Issue	Design/Construction Works Required	Tram Position
		CEC / SW to agree principle of cost neutrality to repair/maintain apparatus as a result of Tram		<p>regulations, SW/CEC Agreement or precedence on other Light Rail projects for the utility provider to be held cost neutral based on the execution of the scope of the agreed diversion works.</p> <p>CEC to issue position paper 11 in accordance with agreed Legal/Contractual Key Issues Document V1 31st May 2013. (Appendix A)</p>
13	YP - OT	<p>Scope Agreement</p> <p>CEC to reach agreement on current scope delivery between York Place and Ocean Terminal</p>	None Envisaged	CEC to issue position paper 16 in accordance with agreed Legal/Contractual Key Issues Document V1 31 st May 2013. (Appendix A)
14	Site Wide	Leaking fusion couplers	None envisaged	SW has not provided detailed substantiation to justify the claims of excessive post construction failures of fusion couplers. On this basis CEC propose no further action.
15	Gogar Landfill	<p>Gogar Land Fill Sewer</p> <p>CEC has provided insurance pipe crossing approximately 60m from the SW sewer network.</p> <p>SW require assurance that CEC will fund additional connecting pipe from MHXX to SW sewer network should the requirement arise.</p>	None Envisaged	<p>Agreement reached in principle: CEC/SW legal to close out.</p> <p>Close out by 30th June 2013</p>

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Item	Location	Issue	Design/Construction Works Required	Tram Position
16	South Gyle Access Bridge, Bankhead Drive	450mm watermain thrust block Repair required to SW main to provide sufficient thrust restraint	None envisaged by Tram	SW to deliver the works with CEC funding reasonable costs.
17	General	Stray Current (OIS 310): Final agreement required between the parties.	None envisaged	Stray Current Assessment Report June 2010 prepared by Dr Roger White of Atkins (independent expert appointed with agreement of all parties) established satisfaction with the design and its verification to current standards. The validation process will be controlled by Testing and Commissioning plans to be developed which will allow the level of stray current to be validated. This will continue into the Operational phase using accepted Stray current testing and commissioning plans.
18	General	Permanent SW connections: Water supply, Foul and surface water consents. Surface water connections are covered under the Business Stream application process.	None envisaged	CEC to ensure connections agreements are transferred
19	General	SW Scope Agreement (Edi airport - York Place)	Close out of remaining TCL items.	All items on the tie Correspondence log of 14 th June 2013 will be closed out with the exception of the following items: INF 299 (see item 29 below) INF 312 (see item 30 below)

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Item	Location	Issue	Design/Construction Works Required	Tram Position
				INF 333 (see item 31 below) INF 339 (see item 32 below) INF 104 (see item 33 below) INF 112 (see item 34 below) INF 281 (see item 35 below) MUD 145 (see item 36 below) MUD 179 (see item 37 below) CFW 002 (see item 38 below) INF 344 (see item 39 below)
20	On and Off street	Final 5% Surveys and Grade 3, 4, 5 Sewer Surveys Surveys have been issued to Scottish Water covering Edi Airport to York Place. SW to confirm any outstanding actions. Possible risk until SW response received	None envisaged	CEC confirms that no further works are proposed.

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Item	Location	Issue	Design/Construction Works Required	Tram Position
21	Off Street	Transfer of Ownership / CEC Adoption of SW asset A8 road drainage	None envisaged	CEC/SW to agree Adoption of sewer. Adoption process to be agreed by 30 th June 2013.
22	Grosvenor Street	Grosvenor Street sewer collapse.	None envisaged	No further works required. For commercial position see item 7 above.
23	Gogarburn	Diversion at Gogarburn Tram Stop (Section 7a)	None Envisaged	No further works proposed. CEC/SW to reach agreement on a suitable indemnity for omission of twin 63mm diameter water main crossing. Agreement reached in principle: CEC/SW legal to close out. Close out by 30 th June 2013
24	Water of Leith	Water of Leith Sewer Lining Sewer lining works complete. MH not constructed as per IFC. SW has rejected CEC proposals to increase headroom to 1.7m.	CEC to procure separate contractor to raise manhole headroom to 1.7m.	CEC propose to locally raise ground and increase manhole headroom to 1.7m in accordance with TQ 1600 included in Appendix H. Due to depth and location of the manhole, the requirement to increase the headroom to 2m is not feasible.

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Item	Location	Issue	Design/Construction Works Required	Tram Position
25	Network 13, St Andrew Square	New Manhole South Drainage Connection works.	CEC to complete manhole works in accordance with TQ 1624 to be submitted to SW.	CEC propose to complete new Manhole South in accordance with TQ 1624 to be submitted to SW.
26	Bankhead Drive	CEC are constructing new MH6201 in accordance with Sewers for Scotland 2. This is due to a previously non-compliant manhole connection. SW has rejected proposal as they have previously requested a larger than standard opening size.	CEC to complete manhole works in accordance with TQ1607 Rev B, TQ1620 & TQ1621	CEC to construct manhole in accordance with TQ1607 Rev B, TQ1620 & TQ1621 included in Appendix I. Manhole has been constructed in accordance with SW standard specification. No further works are proposed.
27	West Register Street	West Register Street Utility Proximity	None Envisaged	CEC/SW to agree indemnity for additional repair/maintenance costs. Agreement reached in principle: CEC/SW legal to close out. Close out by 30 th June 2013
28	York Place	York Place Piling packs	None Envisaged	Tram notified SW of piling and followed the agreed procedures as detailed in Edinburgh Trams letter reference OSW.072.JW. Project to consider final pile location relative to SW asset and determine whether a Technical Derogation is applicable.

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Item	Location	Issue	Design/Construction Works Required	Tram Position
29	1C	INF 299 Potential separation of 3rd party utilities from the SW hydrant SW believe the hydrant chamber is sitting on existing Scottish Power ducts (see TQ 1475)	None Envisaged	CEC confirm that no further works are planned in York Place to carry out trial digging for a suspected issue of utility separation.
30	5C	INF 312, leaking DAV at Gogar Depot	None Envisaged	CEC confirm that the defects period has expired for the notified item and as such no further works are envisaged.
31	1C	INF333, 125mm main Broughton Street, Section of main in concrete	None envisaged	CEC confirm that due to the proximity of utilities in this area the only option to achieve the road carriageway specification was to surround the local utilities in foam concrete. This remains a flexible road pavement design and is not applicable for compensation in accordance with the NRSWA Code of Practice.
32	1C	INF339 YP/SAS 125mm Main proximity to ducting	None envisaged	CEC confirm the ducting and water main are installed in the only feasible location with respect to the alignment of the tram, basements and the available corridor for the utility works. This issue will be covered by an appropriate technical derogation agreement between CEC and SW.

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Item	Location	Issue	Design/Construction Works Required	Tram Position
33	On Street	Do Nothing Item: INF104 Repair required in Crawley Tunnel annex roof required to prevent water entering tunnel from surface	None Envisaged	CEC confirm that the condition of the Crawley Tunnel annex roof is as found in the condition report from 1997 which is included in Appendix J. As a result this is a SW issue to resolve as it pre dates the Edinburgh Tram project.
34	On Street	Do Nothing Item: INF112 TIE has not carried the works as per PBTQ 178. SW requires the steel plate between the Gas and Water to be removed.	None Envisaged	CEC consider no works required as steel plate is providing protection to SGN main.
35	On Street	Do Nothing Item: INF281 CEC believe lead service to St Johns church has been renewed to agreed TQ1320. SW has requested further trial excavations in Princes Street to witness works.	None Envisaged	CEC confirm the works were carried out in accordance with TQ 1320 and that SW had opportunity to witness works in accordance with Third party Agreement. CEC confirm no further trial excavation will be carried out.
36	On Street	Do Nothing Item: MUD145 SW believe the 315mm crossing of Princes St at the Mound lacks adequate separation from the gas main on the south side of Princes.	None Envisaged	CEC consider the issue closed as the pipes (gas/water) have separation and are running at 90 degrees to each other. In addition there is no other feasible location for the pipework in this area. The installation photograph and separation is confirmed in Appendix K.
37	On Street	Do Nothing Item: MUD179 SW believe the wall/arch tie in detail is unsuitable.	None Envisaged	CEC has carried out a CCTV survey to show the external wall/arch tie in. This shows no signs of distress and it should be noted that the road in this

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Item	Location	Issue	Design/Construction Works Required	Tram Position
				area has been heavily trafficked for approximately 5 years. CEC does not propose any further works but would recommend SW continue to monitor the situation through regular CCTV survey.
38	Off Street	Do Nothing Item: CFW002 Conflict 63mm Haymarket Yards Completed - Section 2A - SW pipe diversion at OLE 200+202. Pipe now proven to be under 1m Concrete and new Kerb Line. DKE measurement not known SW/CEC to reach agreement on indemnity	None Envisaged	CEC to agree suitable indemnity for SW with respect to additional repair and maintenance costs.
39	Palmerston Place	Do Nothing item: INF344 Seized bypass valve at Palmerston Place	None Envisaged	McNicholas has excavated around valve and rebuilt chamber. The valve is still seized. CEC confirm that the defects period has expired for this particular contract and no further works are planned by CEC.
40	Site Wide	Drainage Connections – Composite list of drainage connections made to SW network including those not in the original 33nr.	None Envisaged	CEC/SW to agree all connections are approved. Agreement reached in principle. Close out by 30 th June 2013
41	Russell Road	Russell Road Service abandonment	Works to be undertaken to decommission service at the main	McNicholas to carry out decommissioning of service at the main.

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Item	Location	Issue	Design/Construction Works Required	Tram Position
42	Carrick Knowe	Carrick Knowe drainage issue – golf course drainage and additional connection	None Envisaged	CEC position as detailed in letter reference OSW.126.SJ dated 13 th June 2013. See Appendix L.
43	St Andrews Square	New Manhole North & South – Structural Survey required to close out items FIM 71,72,73,75	Minor Works to manhole to allow structural engineer to sign off.	TQ 1608 rejected by SW. This TQ allowed a structural engineer to sign off the manhole issues highlighted in FIM 71,72,73 & 75 CEC Final Position is to complete the works in accordance with TQ1608 included in Appendix M.
44	Carrick Knowe	Carrick Knowe Sewer Diversion INF345 CCTV shows displacement in sewer	None Envisaged	CCTV survey submitted post sewer diversion works by B&S. CCTV survey shows transition between differing materials. CEC confirm no further works are required.
45	Site Wide	Planting concerns	TBC	CEC to carry out review of landscaping design information. No further diversion works will be required.

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Appendix A - Legal/Contractual Key Issues Document

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Appendix B - Fire Hydrants Report Findings

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Appendix C - CEC Position Papers 12,13 and 14

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Appendix D - Commercial Position

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Appendix E - Lead Replacement - OSW.079.AS

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Appendix F - Derogations List

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Appendix G - Position Paper Nr 10

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Appendix H - Water of Leith TQ1600

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Appendix I - MH6201 TQ1607 Rev B, TQ1620 & TQ1621

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Appendix J - Crawley Tunnel Report

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Appendix K - MUD 145 Photographs

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Appendix L - Carrick Knowe Drainage – OSW.126.SJ

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Appendix M - New Manhole North TQ 1608