

Edinburgh Tram Network

SDS Progress Report -

Period 3-10

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*Parsons Brinckerhoff Ltd
Edinburgh Tram Network
SDS Provider
CityPoint
1st Floor
65 Haymarket Terrace
Edinburgh, EH12 5HD*

*Telephone: 44(0) 131 623 8600
Facsimile: 44(0) 131 623 8601
Email: edinburghtram@pbworld.com*

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AUTHORISATION PAGE

Title: SDS Monthly Progress Report				
Approvals	Name	Position	Signed	Date
Author	J Chandler	Project Manager		25/01/11
Approver	J Chandler	Project Manager		25/01/11

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1 TOP ISSUES

1. Instruction for Extended Construction and Design Support for next period (3-11) to be agreed by BSC and tie ASAP.
2. Resolution of Outstanding SDS Changes inc Misalignment Changes for Tram Stops, Substation, OLE on Structures and Earthing and Bonding
3. Receipt of outstanding information to complete design.
4. Picardy Place and Elder Street Closeout for original TAA
5. CEC Change Requirements for Picardy Place
6. Grosvenor Street revisions and OLE instruction
7. Section 3 TAA Closeouts
8. Technical approval for OLE bases in Section 1 requires **tie** letter to CEC and CEC signoff.

2 COMMERCIAL

2.1 General

This report covers Period 03rd January '11 to 29th January '11. The progress is detailed for the time period of 03rd January '11 to 14th January '11, during which actual events occurred. There are several critical issues outstanding on the project. These are presented per the drawings in Appendix A.

2.1.1 Applications for Payment

The certification of the Applications for Payment is up to date, with the only significant discrepancy being on the valuation for a few change orders, which are relevant to interpretation of percentage completes or Pre Novation changes. There is minimal outstanding payment in ECS and ATRs and these are now worked through on a periodic basis, which is a welcomed progression from previous periods. There are very few ATRs outstanding now, following at productive meeting (SDS/BSC) on 21st October 2010. However the ATRs relating to Siemens works are not receiving timely , which is hindering progress for design and financial closeout.

The Extended Construction and Design Support organisation charts are due to be agreed for P11.

2.1.2 Change Control

Approximately £3.28 million worth of Change Instruction has been instructed to SDS to date. This is a progression in terms of the change process, and SDS is keen to work on this success to 'unlock' other outstanding changes, including the Development workshop changes, and new changes that are instructed. SDS requires updating on the Development Workshop Changes in particular, as we are not invited to the meeting with **tie** about these and do not know the status of commercial resolution.

SDS still awaits Change Order for DCR0036 (BSC to confirm scope) as per the Design Completion works. .

2.1.3 ATRs

SDS await response to 3 no. ATRs from BSC, ATR0156, ATR0180 & ATR0192.

2.2 Summary of Changes

- Changes Identified; 303
- Change Notification Received; 178
- Change Estimates Submitted; 184
- Changes Withdrawn/Closed/ Superseded; 135
- Change Instructions Received; 134

2.3 Programme

Version 66 of the programme will be released this period.

3 APPROVALS

3.1 General

SDS is progressing to obtaining the final planning and technical approvals to complete the design. From a total of 269 planning and technical approvals:

- 81% are approved (219).
- 10% are pending approval (27).
- 9% are to be submitted (23).

Current status (today) is:

92% Planning Approvals granted (up 2% from the last reporting period).

74% Technical Approvals granted.(up 1% from the last reporting period).

The remaining outstanding approvals are either: 1) to be approved imminently, 2) have been subject to re-prioritisation and long standing changes, or 3) are new with recent changes instructed. Some of the approvals have been identified as obsolete and are no longer included in the numbers (hence affecting the overall numbers month to month. This will continue to be reviewed as the changes are moved forward and it is understood if formal re-approval is required. However, this will not be known until either the work is further progressed or clarification is received by SDS on various topics.

In order to complete to CEC:

- Roads Approvals and Prioritisation – Section 1C2 and the entirety of Section 3 need to be reviewed and approved by CEC. SDS understands that this is being completed in line with a prioritisation list.
- Instruct known changes.
- Freeze on any future changes to allow current scope to progress to completion.

The CEC/tie/BSC/SDS Approvals Task Force meets monthly. The next meeting will be on the 18 January 2011..

Various changes being instructed as part of the approvals process will also require updates to the planning approvals. These items have been included in this report upon receipt of the formal instructions. The Variations programme has been updated in line with BSC construction priorities following discussion with Simon Nesbitt on 12 January 2011. The focus is on submitting and gaining approval for the Variations between Haymarket and the Airport. SDS is currently working to this programme unless instructed otherwise.

Variations to the planning approvals due to technical comments / Siemens designs are also not included; however recent meetings between SDS and BSC have identified an agreement in principle on how to move forward with overlapping requirements. SDS looks forward to the formalisation of this discussion by BSC.

The Approvals Look Ahead is emailed to BSC on a monthly basis to inform the Task Force. The approvals tracker can be provided on an as needed basis.

3.2 Systemwide

3.2.1 Outstanding:

- Scottish Water Approval/Consents. Formal process now agreed and SDS has received the majority of the formal approvals. Section 3 approvals and Section 1C1/2 outstanding for reasons out with SDS control. Recent communication from SW indicates that Section 3A and 3B are now being progressed. SDS has written to BSC on this issue.
- All Scottish Water submissions have to be reissued due to updates of the design due to changes and BSC infrastructure/component design. To date all have been submitted except 1C1/2, 5B, 5C and section 7.
- SDS has issued a suit of standard Scottish Water details to Business Stream. These are under review by Business Stream and SDS await comments. These will be applied to each of the new connections made to the Scottish Water infrastructure.

3.2.2 Progress

a) TRO

- Technical drawings have now been aligned with TRO1 drawings. Issue with Grosvenor Street unresolved and is subject to issue of change instruction.

b) Traffic Modelling

- Preliminary work has commenced to review the newly instructed change for Picardy Place re-design to take on board the additional lane and throughput within the scheme. The overall effect of the additional lane will be evaluated both for junction specific and the wider area effect.
- Request has been made to tie to review outstanding issues with traffic modelling to achieve closeout of the model. Tie advised that this is acceptable, date to be confirmed for next period.

c) Track and Trackform

- SDS have revised tram stop design to accommodate revised dimensions for CAF DKE. ATR received for works to date.

d) Roads Design

- Appendix 7/1 designs for Princes Street submitted and approved by CEC. CEC have signed off original appendix 7/1.
- Revised Appendix 7/1 has been approved by CEC and issued for IFC. Existing 7/1 can now be withdrawn.
- DCR0140 works for Roads construction analysis of results approximately 33% complete. Full testing requirements awaited for all remaining sections.

e) OLE and OLE Foundations

- DCR0127 for Building Fixing Owner agreements is approximately 90% complete.
- DCR0177 works to amend OLE system documents approximately 90% complete.
- DCR0178 works to amend building fixing locations approximately 95% complete.
- DCR0179 works to provide alternative lighting design to accommodate relevant aspects of BSC OLE design 100% complete based upon Revision E of the Siemens OLE design.
- New change required to update the PB lighting design to accommodate Siemens Rev F2 (i.e. Rev H) of the OLE design.
- DKE checks completed throughout the route to identify from Revision F1 and 2 (i.e. Rev G and H) for pole positions required by Siemens and any conflict or encroachment within the RSP 2 Guidelines have been identified.

- Work to identify planning variations required to secure CEC approval of BSC proposed OLE locations is ongoing. This is ongoing for Line 1 and Line 2. Line 2 taking priority.

3.3 Section 1

3.3.1 Outstanding – Planning

- 1/18 – Cathedral Lane Substation Redesign Full Planning – Instruction required.
- 1/18a – Cathedral Lane Substation Redesign Building Warrant – Instruction required.
- Variations to Prior Approvals to deal with Siemens OLE repositioning and alignment with technical designs underway.
- 2 No. Listed Building Consent applications to alter railings/walls at the top of Dublin Street

3.3.2 Outstanding - Technical

- 1A - DCR0202 (Forth Ports Drainage) – advised by CEC that this is a required approval. Instruction received. tie has informally advised that Forth Ports drainage has now been adopted by CEC. Formal verification required. 100% complete and awaiting abortive cost change Order..
- 1A2 – DCR0232 - Tower Place Bridge revisions – design 100% complete.
- 1A4 – DCR0141 (Roads) – Change cancelled by tie SDS await Change Order for abortive costs..
- 1A4 – DCR0225 (Roads) – high-low level connection at Lindsay Road Retaining Wall – awaiting instruction for abortive costs due to confirmation from tie of revised requirements.
- 1D – DCR0255 (Grosvenor Street) – awaiting instruction.
- Sectionwide – revisions to Roads and Street Lighting due to Siemens OLE positions (DCR0179 and DCR0227) with CEC for approval. Change Order still required for DCR 227.
- Sectionwide – Informatives being submitted to BSC and discussed with CEC on weekly basis. Closeout of issues progressing.
- Sectionwide – Drainage design has been revised to reflect BSC drainage box locations and any amendments to drainage due to BSC systemwide design. This has been issued to Scottish water and CEC as updated information with confirmation that there are no changes to connections to existing SW drainage.

3.3.3 Subsection 1A1 – Dock Gates to Foot of the Walk

a) Roads, Street Lighting, Landscaping, Drainage 1A1

- IFC already issued.
- Closeout Report issued to CEC.
- Closeout comments received. IFC re-issued based on closeout comments.

- SDS completed detail design of private wall relocation to south of Port of Leith tram stop. Planning approval previously achieved. IFC issue immanent.
- CEC have identified an issue with turning vehicles at Laurie Street from Constitution Street. SDS designers provided options to CEC. Awaiting CEC confirmation of preference.

3.3.4 Subsection 1A2 – Victoria Docks Entrance Bridge to Dock Gates

a) Roads, Street Lighting, Landscaping, and Drainage

- DCR0240 - Forth Ports raised new issued about adding additional access points near the casino. SDS sent letter to BSC. Change order required.
- Tie have advised in a meeting on 5 Joan 2011 that SDS are required to achieve Forth Port Authority Approval in relation to the design impacting on Forth Ports. This is in addition to the requirements detailed in the Third Party Agreement between tie and Forth Ports Plc. This is the first time that tie have stated that SDS have this obligation and SDS disagree with the tie position. SDS cannot find any obligation in the SDS Agreement or the Parliamentary Bill to consult with Forth Ports in a broader capacity than specified in the Third Party Agreement. Letter to be written by SDS stating their position.

b) Victoria Dock Entrance Bridge – S16 (Ch 101+370)

- IFC already issued.
- RFO regarding derailment containment issued to tie to present to ICP. This is based on principal previously presented at PSCC in April 2007

c) Tower Place Bridge - S17 (Ch101+470)

- RFO regarding derailment containment issued to tie to present to ICP. This is based on principal previously presented at PSCC in April 2007
- DCR0232 - Change notice issued to review ramp, coping layouts, and Siemens OLE design. BSc to confirm actual scope before SDS can provide an estimate

3.3.5 Subsection 1A3– Ocean Terminal to Victoria Docks Entrance Bridge

a) Roads, Track, Street Lighting and Landscaping

- Roads issued to CEC for TAA close-out comments in December 2009.
- IFC issued.
- SDS has requested copy of agreement with Scottish Government and designs for the movement of the access gate to the Scottish Government complex with Forth Port has indicated is being completed. SDS has completed review and assessment of required gate move in line with request by BSC and ATR approved.
- SDS issued drawing under ATR0102 showing potential road shift as requested by tie.
- SDS provided detail finishes drawings for frontage of Ocean Terminal to tie (via BSC) for concurrence with CEC / FP with respect to revised Forth Ports agreement. Meeting arranged with CEC, tie and BSC to present the design for this section prior to closeout comments from CEC.

3.3.6 Subsection 1C2 – North of Annandale Street to Broughton Street

a) Substation – Cathedral Lane – SS12 (Ch120+400)

- Building Warrant granted.
- Full planning permission granted.
- IFC Issued.
- DCR0167 works for developer request to provide new building works approximately 20% complete. Survey completed. Design works on Cathedral Lane Sub-station is on hold. Instruction to re-commence design on original scheme or new scheme required from tie.

3.3.7 Subsection 1C3 – Broughton Street to Section 1D

a) Roads, Track, Street Lighting and Landscaping – Subsection 1C3 – York Place

- Picardy Place redesign being progressed on the basis of tie instruction. This includes redesign as a result of letter received from CEC on 18 September 09 indicating changes required to the Elder Street junction and removal of bus lane along York Place.

3.3.8 Subsection 1D

a) Roads, Track, Drainage, Street Lighting and Landscaping – Subsection 1D

- DCR0255 - Requirement to change kerb lines and traffic movements at Grosvenor Street. Resolution of TRO change orders required. SDS issued letter to BSC. Change order required.
- DCR0227 works approximately 90% complete.
- Shandwick Place Tramstop IFC incorporating previous CEC comments will be reviewed at a workshop with CEC and tie to achieve CEC closure of CEC Informatives.

3.4 Section 2

3.4.1 Subsection 2A

a) Roads, Track, Street Lighting and Landscaping – Subsection 2A

- Revised street lighting Issued for Construction which deals with agreed Operational Design Review comment.
- Revised design for Phase 1A/1B separation (Roseburn Delta / cycleway) submitted to CEC Roads authority for TAA approval. Drawings subsequently withdrawn after discussion with tie on scope. Requires approval of Section 3A for IFC. New design works complete.
- DCR0227 works approximately 90% complete. Awaiting Change Order for the works.

3.5 Section 3

3.5.1 Outstanding – Planning: None

3.5.2 Outstanding - Technical:

- All 6 technical approvals that are with CEC for consideration are currently on hold due to the agreed prioritisation list between tie and CEC. SDS is in delay with respect to these items.
- Drainage information submitted to Scottish Water (SW). SW has recently contacted SDS looking for a meeting to discuss process. SDS provided clarification to tie email on this issue. SDS has written formally to BSC on this issue.
- Partial technical Approval comments returned by CEC to enable Phase 1A/1B split redesign to be commenced in accordance with tie's requirements.

3.6 Section 5

3.6.1 Outstanding - Planning:

Approvals:

- 5/07d – Murrayfield Accommodation Works (Advertising Consent). Change order has been received. Consultation with CEC underway.
- 5/23 – Roseburn Street Bridge – new prior approval required to accommodate change in design. Informal consultations have been held with CEC requesting revisions to walls under the bridge. Change Order awaited.
- 5/24 – Gogar Interchange. Prior approval received..
- 5/30 - Tram Stop Gogarburn. Approved

Building Warrants:

- 5/05c - JB McLean –approved..
- 5/07c – Murrayfield Accommodation Works. Approved.
- 5/24a – Building Warrant for Gogar Interchange – Application submitted. Comments received from CEC.
- Potential demolition warrants required at properties 96 and 101. Instruction required for SDS to progress. Clarification required on scope.

3.6.2 Outstanding - Technical:

- Revised Roseburn Street Bridge and retaining structures – revised designs have been issued to CEC for review and approval.
- Turning Head Lighting – submitted to NWR and response still awaited.
- Gogar Interchange Retaining Wall - review of design for the retaining wall is progressing prior to issue Interchange package.
- New wall identified west of Carrick Knowe Bridge. Utilities impact due to new wall, diversion of BT duct required. C4 estimates required to complete the works.

3.6.3 Subsection 5A

a) Roads, Track, Street Lighting and Landscaping – Subsection 5A

- DCR0201 works for Network Rail Turning head lighting submitted to NWR for acceptance.
- Revised design for Roseburn Street Bridge VE submitted for approval. Acceptance of the SDS design by CEC Planning department but tie identified an alternative solution. The revised solution is being reviewed to assess impact on the utilities in the area due to additional loading from the new wall that forms part of the revised proposal.

b) Murrayfield Stadium retaining Wall – S21B (Ch 510+650) (Ch 510-870)

- Revised contractors proposal for Ground Stabilisation is awaited by SDS. This will then be incorporated into the SDS design. A three stage proposal is awaited from BSC to prepare change estimates for eth SDS design.

c) Roseburn Street Bridge – S21A (Ch 510+580) – Now VE works identified as S501, 502, 503, and 504

- S501, 502, 503, and 504 - Acceptance of the SDS design by CEC Planning department but tie identified an alternative solution. The revised solution is being reviewed to assess impact on the utilities in the area due to additional loading from the new wall that forms part of the revised proposal.
- S21B - Revised contractors proposal for Ground Stabilisation is awaited by SDS. This will then be incorporated into the SDS design. A three stage proposal is awaited from BSC to prepare change estimates for eth SDS design.

d) SRU / Murrayfield Accommodation Works (DCR0114 / DCR0194)

- Coordination with SRU on-going.
- Planning application granted.
- Detailed points raised by planning for fence type and gate position being addressed with detailed design. Sample provided and agreed.
- Building warrant approved.
- Design 100% complete.

3.6.4 Subsection 5B

a) Roads, Track, Drainage, Street Lighting and Landscaping – Subsection 5B

b) Drainage

- IFC already issued
- Drainage design revised to reflect changes due to BSC design elements, OLE, track drainage boxes and track form. CEC have provided comments on the full package including areas already approved.

c) Carrick Knowe Underbridge – S23 (Ch 521+030)

- New wall identified west of Carrick Knowe Bridge. In discussion with CEC Planning and TAA on details.

- Tie required to raise C4 request with BT in relation to the new wall that is beneath the new wall.

3.6.5 Subsection 5C

a) Roads, Track, Drainage, Street Lighting and Landscaping – Subsection 5C

- Various informatives issued to CEC TAA for closeout.

b) Tram Stop – Gogar Interchange

- DCR0082 change instruction for new tram stop issued. Works approximately 80% complete.
- Coordination with Network Rail designer on-going
- Clarification on delivery of landscaping on south side of A8 required from tie.
- Written confirmation from tie / BSC of new design approach to be provided.
- NWR confirmation of mast position to be confirmed.
- SDS received clarification on location of retaining wall due to relocation of sewer pipe by others.
- Prior Approval granted.
- CEC querying location of radio mast as agreed between SDS, BSC, and tie.
- Revised Prior Approval submitted based on new requirements and comments.

3.7 Section 6

3.7.1 Outstanding:

3.7.2 Subsection 6A

a) Depot General Layout

b) OLE in Depot

3.8 Section 7

3.8.1 Outstanding - Planning:

Approvals:

- 7/25a – NIL Future Proofing Crossing 2 (DCR0134) – approval granted.
- 7/28a – NIL Future Proofing Crossing 1 (DCR0134) – approval granted.
- 7/29a – Airport Kiosk (Full Planning Permission). Application submitted on 11 January 2011.

Building Warrants:

- 7/29b – Airport Kiosk. Change order has been received. Application will be submitted following CEC formal consultation on planning application and resolution of design issues.

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3.8.2 Subsection 7A

a) Roads, Track, Drainage, Street Lighting and Landscaping

- DCR0134 works for NIL future proofing IFC complete and issued. tie instructed the IFC package to be issued without TAA approval.

b) Tram Stop – Edinburgh Airport (Ch 712+560)

- IFC Issued (less pending changes).
- Informal consultation meeting scheduled with CEC on 01 December 09.
- DCR0146 works for Airport Canopy approximately 90% complete.
- CEC have raised objection to detail. SDS instructed to hold submittal of Planning Application (email from tie to BSC on 13 Jan 09) and provide information instead for further consultation. Information submitted to CEC as requested.
- Additional meeting held with tie / BAA.
- Drawings formally submitted to CEC Planning for planning permission on 11 January 2011. .

c) Gogar Burn Retaining Wall Two – W14 (Ch 712+220) (Ch 712+570) –

- Draft revised flood modelling submitted to BSC. Meetings held with BSC, tie and BAA to discuss the latest version of eth flood model and the options for remodelling of the Gogarburn and the flood defences through Section 7 to mitigate any impact of the introduction of tram on the flooding of BAA lands. Solutions reviewed require additional works to be undertaken outside the Limits of Deviation. SDS issued AIP for revised alignment of retaining wall with a straight alignment i.e. removal of the maintenance walkway for eth kiosk. Further flood modelling has been undertaken and presented to tie and BSC. BAA still not content due to very slight increase of flood water levels in the 1 in 200 year flood condition. Further work undertaken by SDS to modify BAA earthworks on banks of the Gogarburn to mitigate the 1 in 200 year flood increase. This results in a requirement to increase the height of the banks by up to 10mm. A revised version of the flood model report was issued in December 2010 confirming works required to result in no negative impact on BAA due to introduction of tram. This requires works outside of the LODs. At meeting with tie 17 Jan they advised that BAA had stated that they would accept the tram proposal without the modifications to the embankments along the Gogarburn. CEC have now approved the AIP for W14. TAA for W14 submitted to CEC for approval, awaiting comments.

d) Gogarburn Culvert Three – S34 (Ch712+030)

- IFC already issued. Level of the weir in the culvert has been redesigned/optimised to mitigate flooding on BAA lands. After meeting on 17 Jan, tie advised that the design may require amendment to introduce an adjustable weir height. SDS await tie instruction.

4 UTILITIES

4.1 Utilities

4.1.1 Section 1A

- Section 1A (1-5) IFC drawings have been issued to **tie** (Excluding SW foul for Plate 2 only which require further information, tie undertaking survey).
- Change Order issued to SDS for re-design of Baltic Street, tie/SDS held first design meeting at which tie highlighted that they require additional diversions to be design and that an additional change request would be submitted. Trial pit work undertaken by tie and information forwarded to SDS for revised change estimate. SDS submitted revised estimate and requested to amend estimate with further additional scope. SDS received change instruction and commenced design. SDS has issued the IFA drawings to tie and the SUC's and are in consultation with the SUC's
- SDS asked to review Clancy Docwra design proposal and accept on TQ, highlighted that some utilities may wish for new IFC's. tie asked SDS to continue to respond to TQs and have instructed full time SDS resource for this purpose..

4.1.2 Section 1C

- Crawley Tunnel Design structural design issued for IFC. SDS currently awaiting as-built information from works carried out.

4.1.3 Section 1D

- SDS asked to close out remaining TQ's. SDS have been progressing close-out of remaining TQ's.

4.1.4 Section 5B

- All sewer design issued for IFC except at South Gyle Access, design approved by Scottish Water. SDS has produced Prelim Design for revised scheme as instructed against Option 4. Awaiting further instruction from BSC. Revised design for South Gyle Access Sewer has been issued to Scottish water for Approval and comments being incorporated. Scottish water acceptance has been given with comments, the changes requested in the design has led to structural work being required and this design to be commenced upon receipt of change order. Instruction given and structural design was carried out. IFC drawings issued to **tie**. Site technical queries received have been responded to and updated IFC drawing issued to **tie** incorporating technical queries.

4.1.5 Section 5C

- Discussion undertaken with BSC/tie and Scottish Water with regards position of 250mm main at Depot, trial holes to be carried out at road sign bases, commercial discussions on going. Trail holes have been undertaken to confirm possible route of 250 main within the footway adjacent to the A8 and existing main located. Discussions held with all parties at meeting on 07/01/2011 confirmed updated location of water connection to the depot building. SDS currently producing revised IFC drawing to relocate depot water connection and new route for completion of the 250 main.

5 ADDITIONAL CONSTRUCTION SUPPORT

5.1 TQs

- 27 TQs were received during the reporting period (19th November 2010 to 14th January 2011) and 53 responded to; refer to the TQ register which is updated and maintained separately.

5.2 Month Ahead Org Chart and Activities

Proposed staffing for the upcoming month, based on anticipated construction activities from the BSC look-ahead programme is included as Appendix B.

Roads Construction Support Teams

- Section 1A
 - a. No inspections
- Section 1B
 - a. Ready to Mobilise and providing any design advice on mobilisation
 - b. Responding to on site and technical queries as necessary.
- Remainder of Section 1C
 - a. Ready to Mobilise and providing any design advice on mobilisation
 - b. Responding to on site and technical queries as necessary.
- Remainder of Section 1D
 - a. Ready to Mobilise and providing any design advice on mobilisation
 - b. Review and inspection of any advanced works
 - c. Responding to on site and technical queries as necessary
- Section 2A
 - a. Responding to technical queries and on site reviews.
 - b. Ready to Mobilise and providing any design advice on mobilisation
- Section 5A
 - a. Responding to technical queries and on site reviews.
 - b. Ready to Mobilise and providing any design advice on mobilisation
- Section 5B

- a. Responding to technical queries and on site reviews.
 - b. Ready to Mobilise and providing any design advice on mobilisation
- Section 6
 - a. Responding to technical queries and on site reviews.
 - b. Ready to Mobilise and providing any design advice on mobilisation

Geotechnical Construction Support Teams

- Section 1A
 - a. Ready to Mobilise and providing any design advice on mobilisation
 - b. Responding to technical queries and on site reviews.
- Section 2A
 - a. Ready to Mobilise and providing any design advice on mobilisation
 - b. Responding to technical queries and on site reviews
- Section 5
 - a. Ready to Mobilise and providing any design advice on mobilisation
 - b. Responding to technical queries and on site reviews.
- Section 6
 - a. Ready to Mobilise and providing any design advice on mobilisation
 - b. Responding to technical queries and on site reviews.
- Section 7
 - a. Ready to Mobilise and providing any design advice on mobilisation
 - b. Responding to technical queries and on site reviews.

Civil and Structural teams

- a. Ongoing review of Construction programmes to ensure appropriate supervision of construction activities and ITP requirements.
- b. Attendance at progress and technical issues meetings as required for each section.
- c. Monitor and manage TQs in and out
- d. Manage and provide detail for design changes as a result of site queries
- e. Drainage connection details for specific manholes

- Section 1A
 - a. Responding to site queries related to ducting, drainage, civil and structural items
 - b. Attendance at Contractor and package contractor progress meetings
 - c. Support to BSC in resolution of Tower Place Bridge and review design change requests in relation to this structure
 - d. Witness and inspections as requested and in line with ITP's
- Remainder of Section 1C / 1D
 - a. Prepare for Mobilisation commencement on new sites
 - b. Support at start-up meetings and workshops as required
 - c. Responding to site queries/TQ's related to ducting and drainage, civil and structural items
- Section 2A
 - a.
 - b. Prepare for Mobilisation and therefore monitoring of construction activities in line with ITP requirements
 - c. Ongoing technical support to construction teams through technical queries
- Section 5
 - a. Attendance at Contractor and Package contractor progress meetings
 - b. Ongoing inspections of Depot Access Bridge construction
 - c. Ongoing technical support to construction teams through technical queries
 - d. Monitoring of construction activities in line with ITP requirements
 - e. Supply of design information and TQ response to diversion carried out by BSC in ScotRail area
 - f. Review of sewer lining contractor proposals
 - g. Supply of Utilities information and history and cading of survey information at Edinburgh Park and Depot access
- Section 6
 - a. Ongoing inspections of concrete works slabs and pits and trackform.
 - b. Ongoing inspections and technical support for construction activities related to building works
 - c. Ongoing inspections of drainage and ducting within the depot
 - d. Ongoing inspections of trackform and associated works
 - e. Attendance at contractor and package contractor progress meetings

- f. Monitoring of construction activities in line with ITP requirements
 - g. Ongoing technical support to construction teams through technical queries
 - h. Depot Substation power inspections
 - i. Equipment room inspection to close out elements to allow Siemens system wide installation
 - j. Health at work barriers and requirements around pits/lifting points
 - k. Depot high level platform interface inspections and fitting out.
 - l. Depot internal second fix inspections
- Section 7
 - a. Prepare for Mobilisation and therefore monitoring of construction activities in line with ITP requirements
 - b. Attendance at Contractor and Package contractor progress meetings
 - c. Ongoing technical support to construction teams through technical queries

6 DESIGN AND ADDITIONAL DESIGN SUPPORT

6.1 Activities Undertaken

SDS has continued to provide as-needed Additional Design Support to BSC as required and attended several meetings related to various items. As discussed with BSC and tie, SDS has reduced our resourcing during this period. Main focus over the past 4 weeks has been around:

- Coordination of CAF DKE and swept path run analysis results and clarifications
- Meeting and IDR of emerging BSC OLE designs
- Design and coordination of requirements for OLE design.
- Design and coordination of requirements for OLE foundation designs.
- Updates and changes to Planning Approvals due to OLE pole changes. Discussions with CEC Planning underway.
- Regular meetings are being held between the design support team, BSC and CEC Planning to progress approval issues.
- A process for submitting variations has been agreed between CEC and SDS. This is working well. The agreed process helps to identify any issues as early as possible, before the applications are formally submitted. It is also helping to minimise the risk to these approvals reviewed.
- The team has a 100% approval success rate so far.
- The Design Support team continues to assist BSC in satisfying its tram stop informatives as and when required.

6.2 Ongoing Design Issues

6.2.1 Picardy Place

- Section 1C-2
- Redesign is progressing. PB roads design team now progressing the design and handover meeting has taken place with Halcrow roads team. Further meeting to be held with CEC and tie to clarify modifications to the design for Picardy Place to achieve approval and meet CEC requirements for both Technical and Planning.

6.2.2 Section 1C3 Closeout

- New change (DCR0219) identified for additional crossing at Frederick Street. Meeting held with CEC on 27 January 10 at site to go through requirements. Draft design provided to CEC in advance of formal submittal to mitigate comments. Design with CEC for formal approval. SDS received informal comments and has responded to CEC. CEC indicated that they are happy with the SDS design submitted, however have further queries regarding the MUDFA reinstatement of design delaying CEC response to SDS. SDS awaiting final approval from CEC.

6.2.3 Elder Street / York Place Design Change

- Change estimate for Elder St incorporated into Picardy Place Instruction.

6.2.4 CAF DKE Swept Path Analysis

- Systemwide
- Siemens are submitting RFO to Competent person to address DKE and Siemens design conflicts which remain due to Siemens Revision F(2) pole location plans.
- Information detailing the signalling equipment to be installed by Siemens has been finalised and an addition DKE check is to be undertaken to ensure no further conflicts. Instruction awaited from BSC to SDS and details of the equipment and location..

6.2.5 Section 3 Technical Reviews by CEC

- Required to closeout detailed design.
- Revised Road Safety Audits provided.
- De-prioritised by CEC.
- Confirmation of programme to complete required – still outstanding.

6.2.6 Traffic Modelling

- Still require resolution of Picardy Place design, which is ongoing to close the traffic modelling. This may impact on the junction modelling and wider area modelling.

6.3 Additional Resources

The Design Team Leaders detailed below can be made available to respond to TQ's and attend the appropriate meeting (subject to suitable notice) on the proviso that BSC give instruction that these DTLs time spent will be paid for.

<u>DISCIPLINE</u>	<u>Code</u>	<u>DTL (and contact details)</u>
Tram	TRM	Tony Goodyear
Track (and Alignment)	TRK	Chris Cox
Track Auxiliaries	TRA	Mike Reeves
Roads	RDS	Mike Rogers/David Pluse
Pavement Design	RDS	Orlando Walters
Structures (P)	STR-P	Andy Groves
Structures (H)	STR-H	Phil McKenna
Traction Power Supply	TPS	Graeme Evans
Sub Stations	SUB	Brian Hall
Depot / Gogar Interchange	DEP	Steven Anderson
Tram Stops	STP	Ashwin Rabadia
Overhead Line Equipment	OLE	Mike Coupe
Supervisory, Control and Comms	SCC	Mike Goldsworthy
Low Voltage Supplies	LVS	John Ash
Street Lighting	STL	Anthony Walsh
Drainage	DRN	Bob Jones
Ducting	DUC	Chris Reid
Geotechnical	GEO	David Raeside
Environment	ENV	Mike Rogers
Utilities (L2 - Sections 2, 5, 6 and 7)	UTL	Alan Dolan
Utilities (L1 - Sections 1 and 3)	UTL	Kevin Perry
Landscape	LSC	John Ramsay

APPENDICES

APPENDIX A – RFI REGISTER

APPENDIX B – CRITICAL ISSUES DRAWINGS

Doc Ref ULE90130-SW-DRG-00651 (Line 1)

Doc Ref ULE90130-SW-DRG-00652 (Line 2)



SECTION 3

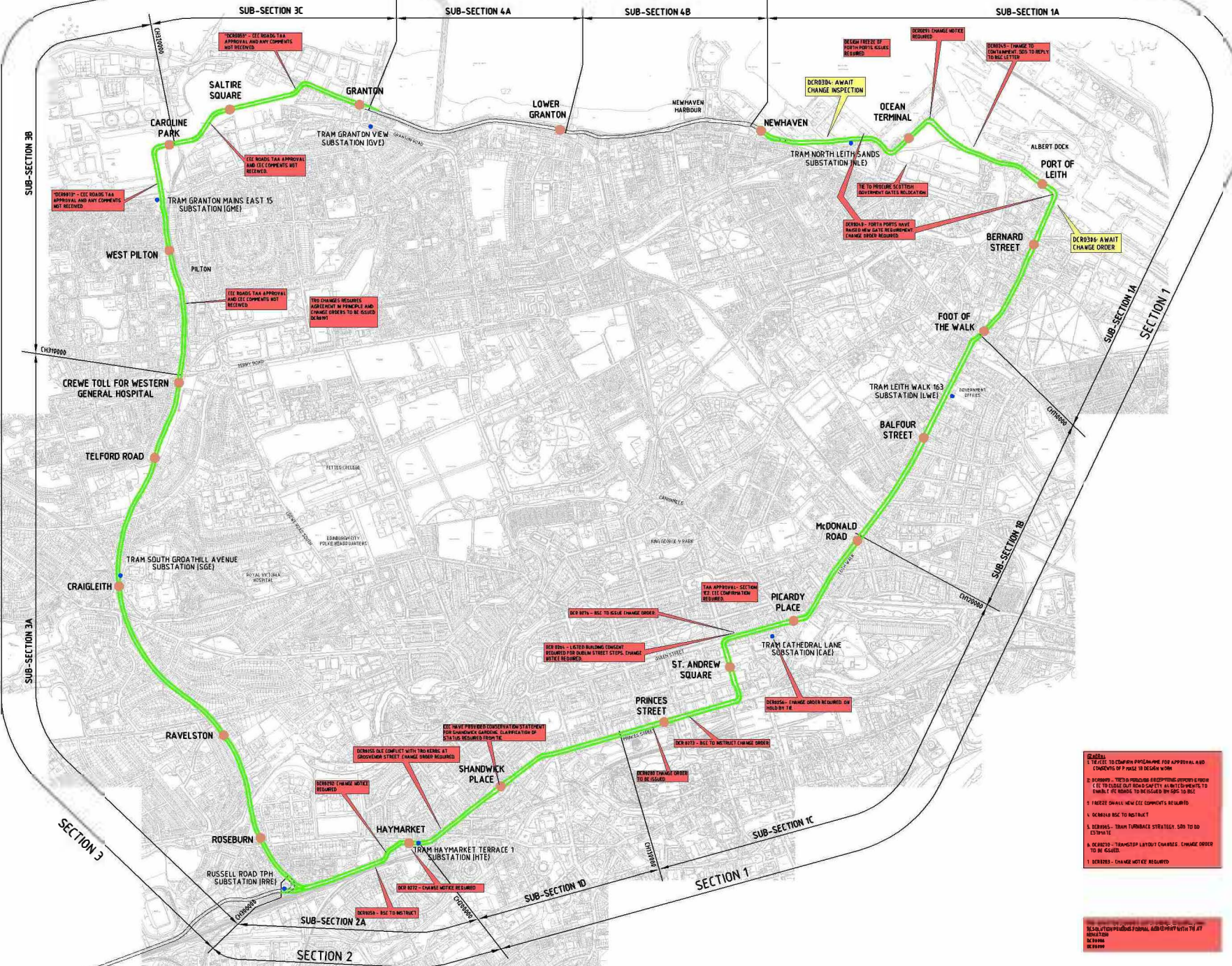
SECTION 4 (NOT IN SCOPE)

SECTION 1

1 DWG HUMMINGBIRD REF: 88229
 PDF HUMMINGBIRD REF: 88239

KEY

- DENOTES OUTSTANDING ISSUE NEW
- DENOTES OUTSTANDING ISSUE 4 WEEKS OLD
- DENOTES OUTSTANDING ISSUE GREATER THAN 4 WEEKS OLD



ISSUE ID	ISSUE DESCRIPTION	ISSUE TYPE	STATUS	ASSIGNED TO	DATE OPENED	DATE CLOSED
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

For Information Only



SYSTEM WIDE
 LINE 1
 POST - INNOVATION
 PROJECT ISSUES

DATE PREPARED	DATE
APPROVED BY	PROJECT MANAGER
Chandler J	
DATE ISSUED	ISSUE NO.
25/01/2024	11000
ULE90130-SW-DRG-00651	27

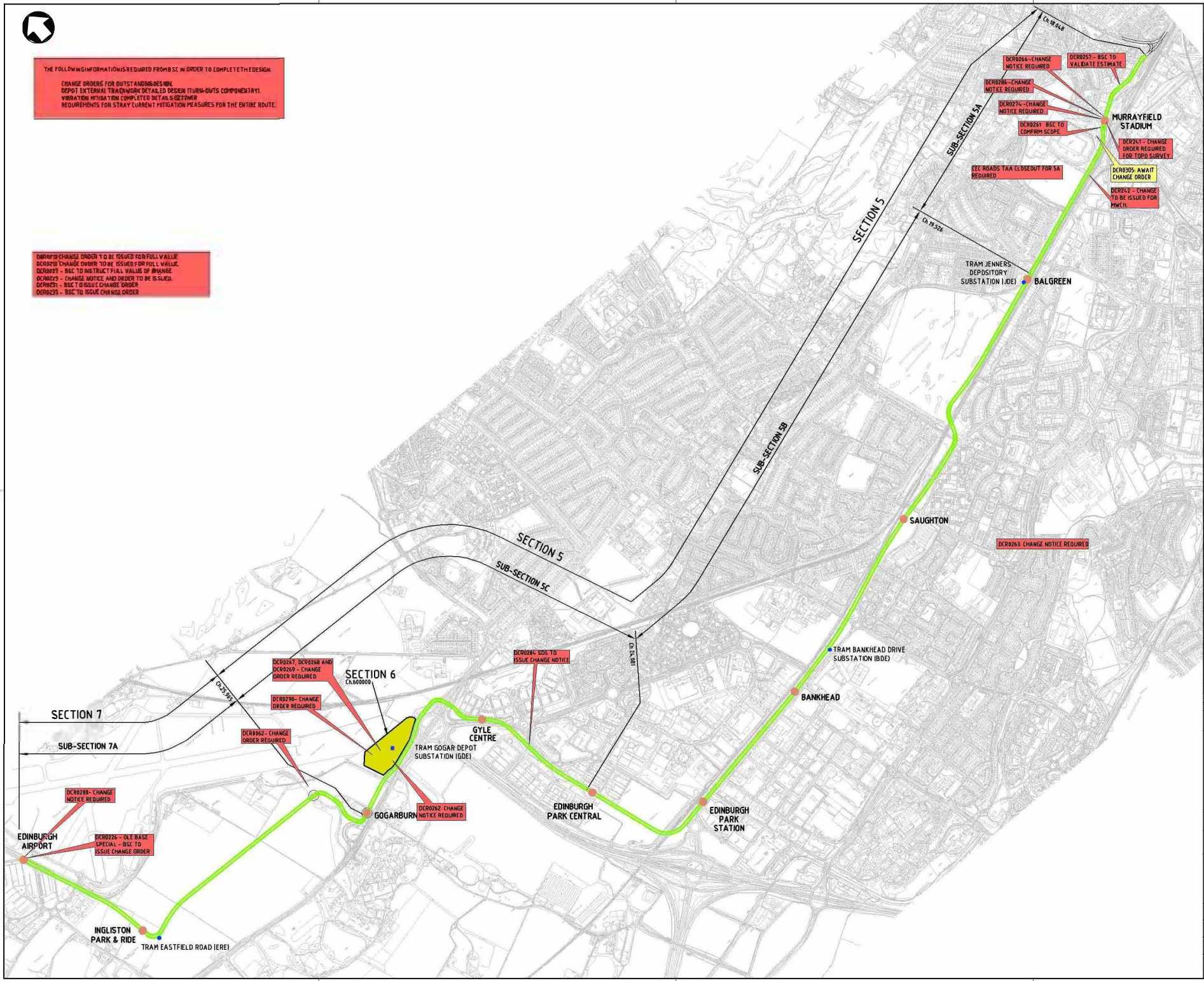
BFB00004350_0027

- 1. REVIEW ALL PROBLEMS FOR APPROVAL AND COORDINATE WITH DESIGN TEAM
- 2. DESIGN - NOTIFICATION RESPONSES SHOULD BE ISSUED TO DESIGN TEAM TO ENABLE E.C. BOARD TO BE ISSUED BY DATE TO BE ISSUED
- 3. DESIGN SHALL NEW ECC COMMENTS REQUIRED
- 4. GENERAL BSC TO NOTIFY
- 5. DESIGN - TRAM TURNBACK STRATEGY. SEND TO DO CONTRACT
- 6. DESIGN - TRAMSTOP LAYOUT CHANGES. CHANGE ORDER TO BE ISSUED
- 7. DESIGN - CHANGE NOTICE REQUIRED



THE FOLLOWING INFORMATION IS REQUIRED FROM STC IN ORDER TO COMPLETE THE DESIGN.
 CHANGE ORDERS FOR OUTSTANDING DESIGN.
 DEPOT EXTERNAL TRACKWORK DETAILED DESIGN (TURN-OUTS COMPLEMENTARY).
 VIBRATION MITIGATION COMPLETED DETAILS (SIGNAL)
 REQUIREMENTS FOR STRAY CURRENT MITIGATION MEASURES FOR THE ENTIRE ROUTE.

DCR0228 CHANGE ORDER TO BE ISSUED FOR FULL VALUE
 DCR0229 CHANGE ORDER TO BE ISSUED FOR FULL VALUE
 DCR0221 - BSC TO INSTRUCT FULL VALUE OF CHANGE
 DCR0222 - CHANGE NOTICE AND ORDER TO BE ISSUED
 DCR0223 - BSC TO ISSUE CHANGE ORDER
 DCR0231 - BSC TO ISSUE CHANGE ORDER




REF: 1. DWG HUMMINGBIRD REF: B8241
 PDF HUMMINGBIRD REF: B8247

KEY

- DENOTES OUTSTANDING ISSUE (NEW)
- DENOTES OUTSTANDING ISSUE 4 WEEKS OLD
- DENOTES OUTSTANDING ISSUE GREATER THAN 4 WEEKS OLD

NO	DESCRIPTION	DATE	STATUS	ISSUED BY	ISSUED FOR
27					
26					
25					
24					
23					
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19					
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1					

For Information Only



EDINBURGH TRAM NETWORK

PR PARTNERS 27th FLOOR 60, WILKINSON STREET

SYSTEM WIDE
 LINE 2
 POST - NOVATION
 PROJECT ISSUES

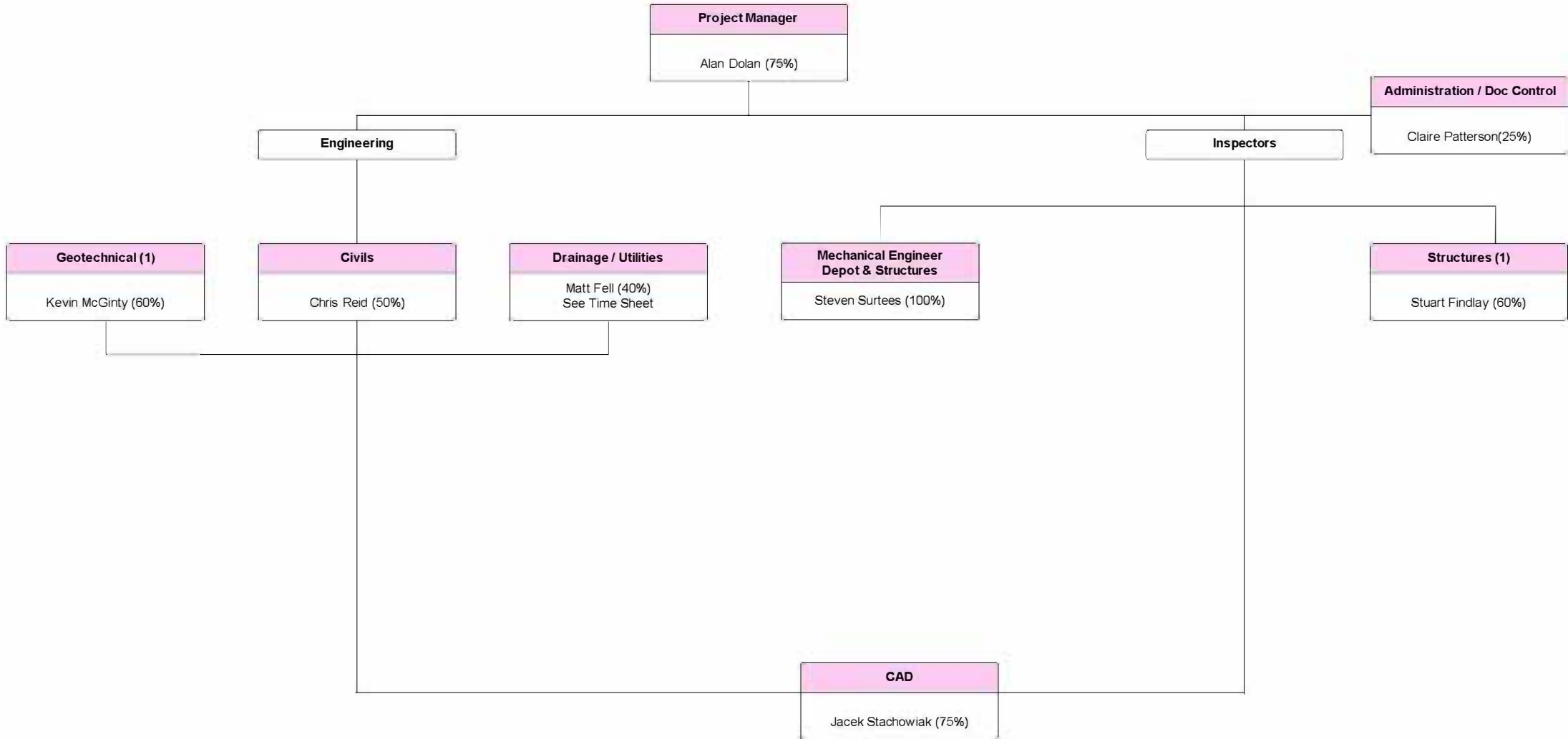
APPROVED BY	DATE
Chandler J	01
24/01/2024	13000

ULE90130-SW-DRG-00652 27

BFB00004350_0028

**APPENDIX C – ORGANISATIONAL CHARTS FOR DESIGN SUPPORT AND
EXTENDED CONSTRUCTION SUPPORT**

Extended Construction Support Services - For The Period 31/01/11 to 28/02/11



BFB00004350_0030



Design Support Services - For The Period 31/01/11 to 28/02/11

