

DRAFT

Bilfinger Berger – Siemens Consortium Edinburgh Tram Network Infraco Proposals – Civil

Introduction

BBS proposals for Civil Works are generally as illustrated by the SDS Design, to be developed and finalised to IFC status under BBS Design Management procedures.

The Design is, at present, incomplete and does not fully or accurately illustrate our proposals at this stage. Specification Appendices are incomplete or not issued to BBS for some Sections of the Works including Earthworks, Testing, Piling, Concrete and Lighting. We refer to the Design Due Diligence Summary Report Rev 2B 18.02.2008 (previously issued) which should be read in conjunction with these Proposals.

It is BBS's intention that the Design will, where possible, be subject to change where;

- 1) It is not in accordance with BBS Pricing Assumptions, Part 1 of Schedule 4 of the Infraco Contract and/or
- 2) It is not in accordance with BBS Programme Assumptions

The proposals are for works shown on the drawings only where these works are for the discipline and sub-discipline of that drawing. e.g. Where Tramstop drawings show works which are not related to the Tramstop, or access to the Tramstop from the nearest footway or footways, these works are not part of our proposals.

Bernard Street streetscape works are not part of these proposals.

For the avoidance of doubt the Proposals exclude Utilities Works.

Appendix A to these Infraco Proposals lists the SDS Design Information issued to BBS up to 25 November 2007.

Requirements for Development and Finalisation of SDS Design

Surveys

Surveys need to be completed to ensure a safe and economic design.
Confirm adequacy of existing structures and that as built records and/or valid historical surveys are acceptable.
Monitoring requirements need to be defined.

Land Made Available

Available land is to be identified in drawing and setting out data format.

Risks

Construction risks related to design are to be identified.

Trackform

Design to be completed and all consents and approvals obtained.
Cross sections required to reflect BBS's selected Track System, including minimum track construction depths (top of rail to formation) with corresponding formation condition requirements.

Geometry

Horizontal Alignment

Design to be completed and all consents and approvals obtained. (e.g. sub-section 1A)
Confirmation required that alignment is compatible with Tram DKE and LOD.

Vertical Alignment

Design to be completed and all consents and approvals obtained.
Revised alignment required for on-street section to minimise work-scope.
Revised alignment required to facilitate direct fixing of rails to structures and guideway.

Tramstops

Design to be completed and all consents and approvals obtained.

Sub-station Buildings

Design to be completed and all consents and approvals obtained, using information from BBS on Sub-station equipment

OLE Foundations

Design to be completed and all consents and approvals obtained. No information.
Information from BBS to be issued on OLE poles, including loadings.

Depot (Section 6)

Design to be completed and all consents and approvals obtained.
Revised steelwork design may be required to allow BBS to comply with BAA requirements for notice period to lower crane jibs if BAA require use of the auxiliary runway.

Site Clearance

Design to be completed and all consents and approvals obtained.

Earthworks

Design to be completed and all consents and approvals obtained. Insufficient information.
Requirements for excavation and filling below Earthworks Outline to be designed and specified and assessment of anticipated formation conditions
Formation requirements to be confirmed.
Requirements for excavation and disposal of contaminated material, and refilling of void, to be designed and specified.
Special Geotechnical measures, e.g. embankment slope steepening (by selection of fill type, re-inforced earth) cut slope steepening (by slope drains, buttresses, soil nails) soft ground treatment (by surcharging/consolidation, load transfer platforms) to be designed and specified.
Requirements for additional/confirmation GI.
Requirements for a Geotechnical Interpretative Report.

Roads

Design to be completed and all consents and approvals obtained.
Pavement to be re-designed to minimise work-scope.
Further pavement surveys and assessments are required.

Drainage

Design to be completed and all consents and approvals obtained.
Requirements for maximising use of and connection to existing drainage network to be confirmed.

Landscaping

Design to be completed and all consents and approvals obtained.

Structures (Bridges and Walls)

W1 Lindsay Road

Design to be completed and all consents and approvals obtained. (No information)

S16 Victoria Dock Entrance

Design to be completed and all consents and approvals obtained. (No information)

S17 Tower Place

Design to be completed and all consents and approvals obtained. (No Information)

S18 Leith Walk Railway

Design to be completed but no Works are anticipated to the structure.

S19 Haymarket Viaduct

Design to be completed and all consents and approvals obtained.
Requirements for a design condition survey of the existing wall.
Requirements for special foundations at Pier 4 and Abutment E to be confirmed.

S20 Russell Road

Design to be completed and all consents and approvals obtained.
Possible re-design of sub-structure to improve buildability

W3 Russell Road (Wall) No 1

Design to be completed and all consents and approvals obtained.

W4 Russell Road (Wall) No 2

Design to be completed and all consents and approvals obtained.

W18 Murrayfield Tramstop (Wall)

Design to be completed and all consents and approvals obtained. (Preliminary information)
Further GI required.

S21A Roseburn Street Viaduct

Design to be completed and all consents and approvals obtained.
Possible re-design to reduce scope and cost.
Further GI required to confirm foundation design.
Re-design required to allow cost efficient fabrication of structural steel.

S21B Murrayfield Stadium (Wall)

Design to be completed and all consents and approvals obtained.

S21C Murrayfield Stadium Underpass

Design to be completed and all consents and approvals obtained.

S21D Murrayfield Training Pitches

Design to be completed and all consents and approvals obtained.

S21E Water of Leith

Design to be completed.
Possible redesign of pier foundations to improve buildability.
Re-design required to allow cost efficient fabrication of structural steel.

W8 Baird Drive

Design to be completed and all consents and approvals obtained. (No information for section adjacent to Balgreen Road Bridge where alignment has been changed)

S22 Balgreen Road

Design to be completed and all consents and approvals obtained. (Preliminary information)

W9 Balgreen Road (Wall)

Design to be completed and all consents and approvals obtained. (No information for section adjacent to Balgreen Road Bridge)

S23 Carrick Knowe

Design to be completed and all consents and approvals obtained.
Completed design to have foundations outwith Track Support Zone.

S26 South Gyle Access Road

Design to be completed and all consents and approvals obtained.

W11 Bankhead Drive Tramstop (Wall)

Design to be completed and all consents and approvals obtained.

S27 Edinburgh Park Station Viaduct

Design to be completed and all consents and approvals obtained.
Possible re-design to reduce scope and cost
Completed design to have foundations outwith Track Support Zone

W19 Gyle Tramstop (Wall)

Design to be completed and all consents and approvals obtained.

S28 A8 Underpass

Design to be completed and all consents and approvals obtained.
Possible re-design to incorporate more economical piling solution along with further GI to confirm ground water regime.
Possible re-design to allow for sewer crossing (under structure)
Re-design for BT duct crossing (over structure)

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S32 Depot Access Bridge (or Depot Access Bridges)

Design to be completed and all consents and approvals obtained. Preliminary/outline information.

S29 Gogar Burn

Design to be completed and all consents and approvals obtained.

S30, 31 and 34 Gogarburn Culverts 1,2 and 3

Design to be completed and all consents and approvals obtained. No information (for design incorporating revised alignment)

W14 and 15 Gogarburn Walls 1 and 2

Design to be completed and all consents and approvals obtained. No information (for design incorporating revised alignment)

Accommodation Works

Design to be completed and all consents and approvals obtained.

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Appendix A

Document List