

Schedule 4
CONTRACT PRICE ANALYSIS

SCHEDULE FOUR CONTRACT PRICE ANALYSIS

CONTENTS

- 1.0 Introduction
- 2.0 Provisional Sums
- 3.0 Provisional Quantities
- 4.0 Identified Value Engineering
- 5.0 Further Value Engineering
- 6.0 Identified **tie** Changes required under Third Party Agreements
- 7.0 Transfer of MUDFA scope
- 8.0 Ground Conditions
- 9.0 Schedules of Rates
- 10.0 Construction Price Analysis
- 11.0 Phase 1B
- 12.0 Final Account Requirements

- APPENDIX A Definitions specific to Schedule 4
- APPENDIX B Provisional Sums and the Mechanism for their Adjustment
- APPENDIX C Provisional Quantities and the Mechanism for their Adjustment
- APPENDIX D Identified Value Engineering
- APPENDIX E Further Value Engineering
- APPENDIX F Identified **tie** Changes required under Third Party Agreements
- APPENDIX G Schedules of Rates
- APPENDIX H Construction Price Analysis
- APPENDIX I Process for the agreement of **tie** Changes
- APPENDIX J Disallowed Costs

1.0 INTRODUCTION

- 1.1 The majority of the Infraco Construction Price is on a 'fixed and firm' lump sum basis and not subject to variation unless changed pursuant to one of the following clauses:
- Clause 80 – **tie** Changes
 - Clause 81 – Infraco Changes
 - Clause 82 – Small Works Changes
 - Clause 83 – Accommodation Works Changes
 - Clause 84 – Qualifying Changes in Law
 - Clause 85 – Phase 1B Option
- 1.2 However certain items are not 'fixed and firm' or alternatively are conditional upon certain criteria being fulfilled. This Schedule sets out the various categories of items that will be subject to change, together with a mechanism for adjustment.
- 1.3 The Infraco is not entitled to any other amounts, save as set out in this Schedule or as otherwise set out in the Infraco Contract.
- 1.4 No provision within this Schedule shall entitle the Infraco to more than one payment for any item or other entitlement under the Infraco Contract.
- 1.5 References to clause numbers in this Schedule are to clauses in the Infraco Contract unless otherwise stated.
- 1.6 All rates, lump sums and the like contained in this Schedule 4 are exclusive of Value Added Tax and are in Pounds Sterling.

2.0 PROVISIONAL SUMS

- 2.1 Provisional Sums are included for items noted in Appendix B.
- 2.2 The proposed steps for firming up the level of cost for the Provisional Sums are as follows:
- 2.3 **tie** is to prepare the specification of the requirement.
- 2.4 The Infraco is to update its proposals based on this specification.
- 2.5 The Provisional Sums are to be omitted and adjusted by applying the principles of Clause 80 (**tie Changes**).
- 2.6 Within 60 Business Days of the execution of the Infraco Contract, **tie** and the Infraco will jointly agree the timescales for this process, failing which **tie's** Representative shall set the timescale.

3.0 PROVISIONAL QUANTITIES

3.1 Provisional Quantities are included for items noted in Appendix C.

3.2 The proposed steps for firming up the level of cost for the Provisional Quantities are as follows:

[DRAFTER'S NOTE: need to know what they are and the reason why they're provisional]

3.2 Within 60 Business Days of the execution of the Infraco Contract, **tie** and the Infraco will jointly agree the timescales for this process, failing which **tie's** Representative shall set the timescale.

4.0 IDENTIFIED VALUE ENGINEERING (VE)

4.1 The parties have agreed Identified Value Engineering opportunities / savings as noted in Appendix D.

4.2 These VE opportunities / savings and not simply targets but are fixed and firm reductions, save for conditions noted.

4.3 In the event that the conditions noted are not possible, any adjustment will be made by applying the principles of Clause 80 (**tie Changes**).

5.0 FURTHER VALUE ENGINEERING (VE)

5.1 Further Value Engineering opportunities / savings as noted in Appendix E

4.4 Other Identified VE represents that which either one or both Parties is unable to commit to at this stage and will still be considered as a potential target. There are two sub-categories, those with an estimated saving carried to the summary and those as an unspecified item.

4.5 These will be adjusted by applying the principles of Clause 80 (**tie Changes**). For the avoidance of doubt, no VE that has already be considered by the Parties or that may subsequently be proposed by tie will be considered as a shared saving under Clause 81.3 (**Infraco Changes**).

6.0 IDENTIFIED TIE CHANGES REQUIRED UNDER THIRD PARTY AGREEMENTS

6.1 Certain changes will be required to the design for the Infraco Works as part of Third Party Agreements.

6.2 Those identified to date are noted in Appendix F.

6.3 For the purposes of calculating the value of these changes any adjustment will be made by applying the principles of Clause 80 (*tie Changes*).

7.0 TRANSFER OF MUDFA SCOPE

7.1 *tie* has let the MUDFA Contract [Multiple Utilities Diversion Framework Arrangement] to carry out the diversion of utility apparatus in the path of the proposed tram route prior to Infraco Works. However it will be necessary for some of this scope to be delivered by Infraco for the following reasons:

- they may be unrecorded and not discovered until the Infraco Works are commenced
- they may be discovered under MUDFA but left to avoid a programme overlap or other technical reason
- they may be intrinsically linked to the Infraco Works
- they may require such significant reinstatement work that to carry out under MUDFA may result in significant abortive works

7.2 Under Clause 22 if during the carrying out of the Infraco Works, the Infraco discovers unidentified utility apparatus then Infraco will be entitled to seek a Compensation Event in accordance with Clause **Error! Reference source not found. (Error! Reference source not found.)**.

7.3 Where Infraco has been advised of the existence of utility apparatus in advance, whether identified to date or following discovery by MUDFA, any adjustment will be made by applying the principles of Clause 80 (*tie Changes*).

7.4 Those identified to date are noted in Appendix F.

8.0 GROUND CONDITIONS

8.1 Under Clause 22 of the Contract... **[DRAFTER'S NOTE: need to check latest position on Clause 22 and work in relation to the ground conditions baseline report]**

8.2 The...

INSERT

9.0 SCHEDULES OF RATES

9.1 Rates for certain items have been established as noted in Appendix G. These include:

- Rates for Accommodation Works
- Rates for Additional Trams and other items related to the Trams
- Labour Rates

9.2 The rates (net of overheads and profit) contained in the appendix are to be used for the purpose of agreeing changes (positive and negative).

10.0 CONSTRUCTION PRICE ANALYSIS

10.1 The... [DRAFTER'S NOTE: need stuff for BBS]

10.2 ?

11.0 PHASE 1B

11.1 Under Clause 85 of the Contract **tie** can instruct execution of the Phase 1B Works as an option.

11.2 The basis of the option is set out in Schedule 42.

12.0 FINAL ACCOUNT REQUIREMENTS

12.1 The final account for the Works and Services shall be prepared progressively though the duration of the Agreement and the Infraco shall provide all necessary information in support such that:

a) the final account for the Construction Works is prepared within 3 months of Service Commencement

and

b) the final account for Maintenance Services delivered in respect of the foregoing Year is prepared within 3 months of the end of that Year.

**APPENDIX A
DEFINITIONS SPECIFIC TO SCHEDULE 4**

Where this Schedule contains defined terms not listed in this Appendix they are contained within Schedule 1 (*Definitions*) **DRAFTER'S NOTE: need to consider and double check**

Example

“Agreement” means the main terms and conditions of the Infraco Contract excluding the Schedules.

**APPENDIX B
PROVISIONAL SUMS AND THE MECHANISM FOR THEIR ADJUSTMENT**

1.0 Summary of Provisional Sums

The following table summarises the Provisional Sums included within the Infraco Works:

[DRAFTER'S NOTE: need to expand to include base cost and OH&P]

Item	Description of Provision Sum	Base Cost	OH&P	Total
1	Additional Accommodation Works			£1,000,000
2	SDS Design – post novation [this amount may be adjusted]			£2,000,000
3	Pumped surface water outfall at A8 underpass (by depot)			£100,000
4	Additional spares			£175,000
5	Scottish Power connections to the Depot and Ingliston Park & Ride			£750,000
6	Relocation of Ancient Monuments – this relates to those monuments noted on the route [SDS drawings ULE 90130-01-HRL 0003B, 6B, 7B, 10B, 12B, 13B, 14B, 15B & 24B refer] – it does not include cleaning and/or restoration			£54,000
7	Allowance for minor utility diversions			£750,000
8	Archaeological Officer – impact on productivity [this amount may be adjusted]			£406,000
9	Additional cost of Network Rail compliant ballast			£300,000
10	Extra over for revised alignment to Picardy Place, York Place and London Road junctions [this amount to be adjusted when BBS come back on Picardy Place]			£6,340,000

11	Extra over for shell grip at junctions			£319,000
12	Allowance for Scottish Power connections to new street lights and new traffic signals			£115,000
13	PICOPS / COSS as Network Rail possession support when undertaking works adjacent or over the railway – see also 2.2 below			£755,000
14	Allowance for demolition of existing Leith Walk substation (if required)			£56,000
15	Additional Crew Relief Facilities at Haymarket			£50,000
16	Amendments as Burnside Road			£1,000,000
17	Space for any others?			
18				
Total		£00,000,000	£0,000,000	£15,170,000

2.0 Basis

- 2.1 The above are 'Defined Provisional Sums' for which Infraco has deemed to have made due allowance in programming, planning and pricing Preliminaries.
- 2.2 Any costs in connection with PICOPS / COSS as Network Rail possession support when undertaking works adjacent or over the railway in respect of item 13 above shall relate solely to the possessions planned at signature of the Infraco Contract. This possession support will be adjusted in the event that Network Rail varies the requirement for PICOPS / COSS or otherwise amends the possession arrangement. However if the possession is amended or extended due to Infraco over-running then any additional possession support will not be recoverable.

**APPENDIX C
PROVISIONAL QUANTITIES AND THE MECHANISM FOR THEIR ADJUSTMENT**

1.0 Summary of Provisional Quantities

The following table is a summary of the Provisional Quantities included within the Infracore Works:

[DRAFTER'S NOTE: need to check if this still applies and expand to include base cost and OH&P where applicable]

Item	Description of Provisional Quantities	Base Cost	OH&P	Total
1	Highway Works			
2	Any agreed material impact of the CAF tram vehicle specification on the traction power supply system as demonstrated by the power simulation modelling			
3				
4				
5				
6				
Total		£0,000,000	£0,000,000	£0,000,000

3.0 Basis

3.1 The above are... **[DRAFTER'S NOTE: to review when above table has been populated]**.

**APPENDIX D
IDENTIFIED VALUE ENGINEERING [VE]**

The following table summarises the agreed identified VE opportunities / savings which are fixed and firm reductions, save for conditions noted:

[DRAFTER'S NOTE: need to expand to include base cost and OH&P]

Item	Description of Identified VE Saving	Base Cost	OH&P	Total	Comments
1	Delete depot pumping station / storm tanks by utilizing existing gravity system			-£193,526	If a small pump is needed then this to be added as a tie Change.
2	Build part of Depot now with provision to expand in the future / reduce size of car park facilities			-£230,000	Agreed initial supply is 100 car park spaces.
3	Delete under floor lift plant to Depot and utilize mobile jacks (including mobile future proofing)			-£250,000	
4	Delete split vehicle accommodation system at Depot - requirement dependant on tram vehicle selection – don't we know this firm one way or the other?			-£27,500	Accommodation bogies are in CAF sub-contract.
5	Rationalise scope requirement Track Maintenance Equipment at Depot and consider renting			-£27,500	
6	Deletion of one pavement (inner) to Depot			-£36,000	As shown on SDS drawing insert.
7	Delete requirement for concrete apron to security fence at Depot			-£6,080	
8	Delete compressed air system to Depot and utilize 1 or 2 local / mobile compressors			-£54,400	

<p>9 Consolidated VE items including those which result from changes to initial design driven by proximity to BAA runway and EARL decision as follows:</p> <ul style="list-style-type: none"> • changes to initial Depot design driven by proximity to BAA runway (reduced bulk excavation) • reductions in structural loadings (gantry crane reduced in capacity and size impacting on building frame and envelope) • reduction in staff accommodation provision (reduced operational workforce reducing messing facilities, changing rooms, locker space, etc.) • reduction in fit out specification • reduction in domestic utility capacity (reduced building volume and accommodation provision) 			-£2,200,000	
<p>10 Delete standby generator and substitute with hardstanding and power connection for portable generator</p>			-£150,000	
<p>11 Material recovery and reprocessing (Infracore); 2 options - reconstituted planings & Type 1R</p>			-£500,000	Level of saving is subject to adjustment of quantity of this item base on the final design.
<p>12 Reduce kerb and associated re-instatement of pavement</p>			-£100,000	Level of saving is subject to adjustment of quantity of this item base on the final design.
<p>13 Reduce drainage run from guideway</p>			-£100,000	Level of saving is subject to

				adjustment of quantity of this item base on the final design.
14	Rationalise specification for overhead contact system – switchgear is considered "quite onerous" – need to review description for contract			Price changes requested for manual, three position cubicle mounted isolators throughout, with exception of the Depot where they can be pole mounted. Status of isolator to be shown via SCADA. -£160,000
15	Edinburgh Park Viaduct 7 spans reduced to 2 with steel beams utilized in lieu of concrete			Subject to approval of NEL / CEC -£1,470,000
16	Carricknowe Bridge parapet – downgrade from P6 / P5 to N2 (reduce cost of parapet plus knock on effect on deck design / cost)			Subject to approval of design by Network Rail -£85,000
17	A8 Underpass – various initiatives			Change to a contiguous piled wall / leaner design. -£850,000
18	Roseburn Street Viaduct – various initiatives			Subject to approval of stakeholders – Network Rail and SRU. -£1,375,000
19	Water of Leith initiatives			 -£150,000
20	Eight maintenance walkway structures – delete or reduce			 -£250,000
21	Class 7 material conversion			Level of saving is subject to adjustment of -£300,000

				quantity of fill required by the final design.	
22	Optimize the work site lengths wherever practical to ensure efficient construction outputs			-£300,000	
23	Accept more disruption over shorter period to maximize efficiency of construction operations			-£100,000	
24	Option to lease UPS provision from supplier rather than purchase			-£300,000	Subject to agreement of Operator / TEL
25	Rationalizing spares supplied with the Infracore bid			-£300,000	Subject to agreement of Operator / TEL
26	PM integration including shared resources and co-location			-£1,000,000	Subject to BBS / tie agreeing savings in resources and facilities items from BBS and tie costs. – we must have detailed preliminaries build up to verify this
27	Noise attenuation (outside of Roseburn Corridor) 3,650m of fencing			-£50,000	Subject to property owners' protests.
28	Reduce ballasted track thickness from 300mm to 200mm			-£200,000	
29	Power supply (up to passenger operation) – possible over allowance in DFBC			-£300,000	Subject to tie demonstrating evidence.
30	Space for any others?			-£ ,000	
Total				-£11,065,006	

**APPENDIX E
FURTHER VALUE ENGINEERING [VE]**

The following table summarises provisional further VE opportunities / savings:

[DRAFTER'S NOTE: detail required from BBS to establish the basis for calculation of firmed up amounts]

Item	Description of Identified VE Saving	Base Cost	OH&P	Total	Comments
1	Further project management integration over 3 years			-£500,000	Joint target
2	SDS design scope economy, variation and reduction			-£500,000	Joint target
3	Tramstops – standard finishes to circa 20% - 30% of stops			-£500,000	Joint target
4	Picardy Place level flexing – MUDFA savings			-£500,000	tie led initiative
5	Picardy Place level flexing – construction savings			-£500,000	Joint initiative
6	Value engineer finishes on Edinburgh Park Viaduct and other structures			-£170,000	Subject to approval of NEL / CEC
7	Space for any others?				
8	Rationalize Depot Access Bridges – is BBS's proposal acceptable?			0	
9					
10					
Total				-£2,670,000	

**APPENDIX F
IDENTIFIED TIE CHANGES REQUIRED UNDER THIRD PARTY AGREEMENTS**

The following table summarises the **tie** Changes that are required under various Third Party Agreements:

[DRAFTER'S NOTE: need to expand to include base cost and OH&P]

Item	Description of Identified tie Change	Base Cost	OH&P	Total	Comments
1	Revised alignment of track at Casino Square, relocated tramstop, junction amendments and removal of 'kink' in alignment from Constitution Street				Forth Ports TPA
2	Footpath on south side of Tower Place Bridge				Forth Ports TPA
3	Victoria Dock Bridge				Forth Ports TPA
4	Ocean Terminal amendments and				Forth Ports TPA
5	Design and construction of by-pass road to adoptable standard				Forth Ports TPA
6	Lindsay Road amendments				Forth Ports TPA
7	OTHERS? – assumes work to the Wanderers Club and other reconfiguration work for SRU is carried out by others				
8					
9					
Total					

**APPENDIX H
PROCESS FOR AGREEMENT OF VARIATIONS**

1.0 Generally

1.1 The **tie** Representative shall value the Variations in accordance with the following principles:

- (a) Where the Works or Services performed are of similar character and executed under similar conditions to that reflected by the unit rates in this Schedule then such Works or Services shall be valued at the unit rates contained therein as applicable.
- (b) Where Works or Services are not of a similar character, are not executed under similar conditions or involve asset quantities significantly different from those reflected by this Schedule then such Works or Services shall be valued using such Rates contained therein as the basis for valuation so far as this may be reasonable.
- (c) Where the principles of (a) and (b) are considered inappropriate by the **tie** Representative the Services shall be valued on the basis of Actual Cost where possible or estimated Actual Cost, failing which a fair valuation shall be made.

1.2 The **tie** Representative shall value Variations by applying overheads and profit percentages for the appropriate elements of cost as follows:

- (a) Civil Engineering works 10%
- (b) Systems and Track works 17%

1.3 The amount of the overheads and profit percentage calculated as part of the valuation of Variations shall be added in the case where the valuation results in an addition and shall be deducted where the valuation results in an omission.

2.0 Maintenance Services

2.1 Variations in respect of Maintenance Services shall be in accordance with the Schedule ?.

2.2 The Infraco's Whole life Model shall be base-lined to reflect the Agreement and any variation shall be calculated therein.

APPENDIX I DISALLOWED COSTS

The following items are specifically agreed as Disallowed Costs and shall not be treated as actual costs under the Infraco Contract. They shall be explicitly excluded from any Payment Application:

Generally;

For items 1 to 21 inclusive below, costs shall mean the Infraco's own costs but will not include costs levied by **tie** for any default by the Infraco or are taken as a set off in respect of Maintenance Services.

1. Costs not justified by the Infraco's accounts and records.
2. Costs not payable under the Infraco Contract.
3. Costs arising from the Infraco's Design errors.
4. Costs arising from Materials, plant, equipment and tooling not used to provide the Services (after allowing for reasonable wastage) and subject to variations omitting work.
5. Costs arising from resources not used to provide the services (after allowing for reasonable availability and utilisation) and not taken away from working areas when **tie's** Representative has instructed.
6. Costs arising where the Infraco was delayed or disrupted during Traffic Hours except where such delay or disruption occurs where the Infraco is undertaking work in Traffic Hours under the Working Time Adjustments regime or it has been specifically agreed in advance by **tie** Representative that work should be undertaken in traffic hours.
7. Costs of correcting or making good defects in the Infraco's Services unless otherwise authorised by **tie's** Representative.
8. Costs deemed by **tie's** Representative to be included in the Infraco's other allowances under the terms of the Agreement (e.g. Head Office Overhead).
9. Costs arising from loss or damage covered under insurance in accordance with Clause ? of the Infraco Contract unless otherwise authorised by **tie's** Representative.
10. Costs arising related to claims for excesses on insurance policies.
11. Costs which should have not been paid to a sub-contractor in accordance with the relevant sub-contract.
12. Costs as incurred only because the Infraco did not follow an acceptance or procurement procedure stated in the Agreement to the extent that this has increased Actual Costs from what they otherwise would have been – i.e. the extra over cost is disallowed.
13. Costs as incurred only because the Infraco did not proceed regularly and diligently with the Services.

14. Costs are in respect of delayed, disrupted or cancelled.
15. Costs arising where the work was delayed, disrupted, or cancelled due to the default of the Infraco (including where the Infraco's default was the cause of an emergency).
16. Costs arising where the Infraco did not make a bona fide attempt to use arranged Access (which includes having the appropriate physical presence on site required to utilise the access) except where the Infraco was instructed by tie's Representative not to use the access.
17. Costs arising where the Infraco failed to notify tie's Representative within 28 calendar days of the disruption or impediment being incurred.
18. Costs arising from the additional cost of a Variation resulting where the Infraco failed to give an early warning and/or notification of in accordance with the requirements of the Infraco Contract or failed to submit for the information required by Clause ?.
19. Costs arising from correcting defects caused by the Infraco not complying with a requirement for how he is to provide the Services stated in the Infraco Contract.
20. Costs incurred outside the LoD or LLAU.
21. Costs arising from people who are part of the Head Office Overhead.