

Edinburgh Tram Network

Infraco CAPEX review – SDS/CSL Reconciliation

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## Introduction

Separate project estimates have been prepared by both SDS and Cyril Sweett Limited (CSL) for the Edinburgh Tram Network. The two companies have worked in isolation and have not conferred, but both have used the SDS Bills of Quantities as the basis of their submissions. In addition both companies have used the same drawing issues so the basis and scope of the two estimates should be very similar.

A comparison between both estimates has been carried out focusing on differences in Rates and Prices and attempting to reconcile any significant differences highlighted.

The SDS estimate has been adjusted for cost escalation as necessary to bring it to a common level of 3Q06.

The results of this reconciliation are detailed below. The format complies with the **tie** Work Breakdown Structure. Whilst there are naturally many minor differences between the two estimates, comments have been made on significant items only.

# 1 Comparison & Reconciliation

## 1.1 High Level Comparison

A simple comparison of the two estimates, adjusted only for cost escalation and excluding Trams and Preliminaries, at elemental level is set out below:

Ref	Description	SDS Total £	CSL Total £	Difference £	Variance %
B1	Track & Formation	65,794,545	55,382,920	-10,411,625	-16
B2	Tram Stops	4,040,459	4,154,289	113,830	+3
B3	Depot	18,533,284	18,592,503	-59,219	-0.5
B4	Highways	15,965,587	22,868,583	6,902,996	+43
B5	Buildings	1,558,641	1,113,518	-445,123	-28
B6	Structures	23,890,572	27,685,009	3,794,437	+16
C	Supervisory & Controls	12,517,439	17,684,374	5,166,935	+41
D	Traction Power & OHLE	22,653,406	31,536,603	8,883,197	+39
	Totals £	164,953,933	179,017,799	14,063,866	+8.5

It is clear from the above that the initial overview of the estimates indicates that some sections show an apparent strong correlation whilst other appear disparate.

A detailed section by section analysis has been carried out and the results, where significant, are commented on below together with any proposed recommendations for adjusting the SDS estimate in the light of these findings.

## 1.2 Section B1 – Track & Formation

A detailed financial analysis of the sub-sections is included in Appendix A. The significant issues arising are as follows:

- The SDS estimate section total is some £10.4m more than the CSL comparable estimate. This is primarily due to a reasonably clear pattern in the rates for major track items where SDS rates are broadly 20 to 25% greater than the rates suggested by CSL.

- There are other minor anomalies within the pricing regime for trackwork in this section but they are not considered significant.
- Mersey Tram prices suggest the SDS rates are appropriate for these works.
- SDS Noise barrier allowances are much greater than CSL. However we know that some significant sections of Plenum Fencing will be required especially within the Roseburn Corridor (Section 3).

Taking the above comments and factors into account we do not recommend any significant changes to the SDS estimate for this section.

### **1.3 Section B2 - Tramstops**

A detailed financial analysis of the sub-sections is included in Appendix A. The significant issues arising are as follows:

- CSL inadvertently included a price for Roseburn Junction Tramstop where no stop exists. This accounts for the majority of the variance in this section.
- The majority of individual Tramstops estimates are broadly within +/-5% of each other when comparing estimates.

Notwithstanding the above it is felt that the SDS estimate for this section is adequate and does not require adjustment.

## 1.4 Section B3 - Depot

A detailed financial analysis of the sub-sections is included in Appendix A. The significant issues arising are as follows:

- SDS estimate for the depot section as a whole is only £59k more than the CSL comparable estimate. However this masks some large anomalies:
- Stores & Materials section has a large variance of some £200,000 with CSL estimate being more than twice the cost indicated by SDS.
- The depot building itself as estimated by SDS is some £2.1 more than estimated by CSL. The balance of the elements making up the depot estimate is however similar between estimates.
- There is also a large disparity in the external works estimates with the CSL estimate being some £1.86m more than that of SDS:
  - CSL have inadvertently included hard paved areas in this section when they are also included in the Highways Section - B4. When this double inclusion of some £612k is stripped out of this section the difference becomes £1.20m.
  - This remaining difference is largely accounted for in the ground works section through significant rate differences of between 30% to 70% between the estimates with SDS rates being lower
  - We have considered the SDS rates and believe that their hardcore rate should be increased to a more appropriate rate of £35/m<sup>3</sup> adding £600k to the SDS estimate.

On balance, we believe that the SDS estimate for the depot is acceptable at this point in time.

## 1.5 Section B4 – Highways

A detailed financial analysis of the sub-sections is included in Appendix A. The significant issues arising are as follows:

- Overall the SDS estimate for the Section is some £6.9m less than the comparable CSL estimate and this appears to follow a consistent pattern throughout the geographical sections. The reason is primarily one of rates but SDS rates are considered to be reasonably robust unless otherwise noted.
- Over £2.0m of the difference is due to Utilities Works, Mobile Plant and City Centre working allowances added by CSL. These would appear justified and it is now recognised that the SDS estimate is deficient in these areas and the following additional allowances have been added to the base SDS estimate:
  - Utilities Interface - £1.18m
  - Method Related Charges - £0.50m
  - Critical Junction Works - £118k
  - Increased road planning and fragmented work fronts - £397k
- In addition it has been recognised that the narrow strip approach, particularly in Princes Street and the Leith Walk areas, required reassessment and an additional allowance has been added to cover this:
  - Increased Re-surfacing - £1.035m

We believe this section of the works as estimated by SDS should be increased by some £3.23m to reflect the Utilities Works, Mobile Plant and City Centre working allowances added by CSL (£2.195m) and Increased Resurfacing (£1.035m). A further addition of £2.2m has been made for UTC upgrade work.

## **1.6 Section B5 – Buildings**

A detailed financial analysis of the sub-sections is included in Appendix A. The significant issues arising are as follows:

- The SDS estimate for this section is some £445k more than the CSL comparable estimate, with most sub-sections being about £30k to £35k more than CSL.
- The primary reason for this is accounted for by the modular substation buildings and associated foundations being included with the substation plant in Section D. This would account for about £45k to 50k (at SDS rates) or some £600k in total.

We believe no alteration to the SDS estimate is required for this Section.

## **1.7 Section B6 – Structures**

The SDS estimate is some £3.70m less than the CSL comparable estimate. Whilst the estimated costs of works to Retaining Walls are comparable, the estimates for the more complex structures show some disparity.

It is however considered that the SDS familiarity with the project mitigates in their favour and no general enhancement is proposed to the SDS estimate to account for this difference.

It is recognised, however, that additional costs will be incurred in dealing with planning issues in relation to new structures and an allowance has now been included for the additional costs of obtaining design approval by enhancing the design of four structures over and above the base cost already included in the estimate. An extra over allowance of £885k has been added to the SDS base estimate for this.



## **1.8 Section C – Supervisory and Controls**

Whilst the CSL estimate is £4.56m greater than the SDS estimate it is considered that the SDS estimate more closely reflects the scope of works given the SDS knowledge of the Project. In addition, information received from Mersey Tram reinforces this position.

## **1.9 Section D – Traction Power & OHLE**

Whilst the CSL estimate is £8.8m greater than the SDS estimate it is considered that the SDS estimate more closely reflects the scope of works given the SDS knowledge of the Project. In addition, information received from Mersey Tram again reinforces this position.

## 2 Conclusions

### 2.1 Conclusions

This comparison and reconciliation exercise has uncovered a number of areas where it would be prudent to adjust the SDS estimate in light of the estimate provided by CSL.

We would summarise these as follows.

Ref	Description	SDS Original Estimate Total £	Adjustment £	Revised Estimate £
B1	Track & Formation	65,794,545	0	65,794,545
B2	Tramstops	4,040,459	0	4,040,459
B3	Depot	18,533,284	600,000	19,133,284
B4	Highways	15,965,587	5,722,045	21,687,632
B5	Buildings	1,558,641	0	1,588,641
B6	Structures	23,890,572	885,000	24,775,572
C	Supervisory & Controls	12,517,439	0	12,517,439
D	Traction Power & OHLE	22,653,406	0	22,653,406
	Prelims and Tram	33,867,876	0	33,867,876
	Other Adjustments and Allowances		24,244,520	24,244,520
	Totals £	198,821,809	31,451,565	230,273,374

However it should be remembered that both estimates are based on a snapshot of the developing design and thus the SDS estimate as revised above will change as the design progresses and cost certainty increases. Nevertheless we believe that the SDS estimate, as adjusted, fairly represents the current Infracore Scope of Work.

### 3 Appendix A