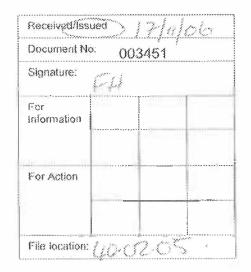


Cyril Sweett Limited 60 Gray's Inn Road London WC1X 8AQ

FAO Ken Davis



Our Ref: 40.02.05/JP/GG/FH

Date: 17th November 2006

Dear Sir

EDINBURGH TRAM NETWORK - COST PLANS

Further to your Cost Plan for Infraco Werks issued 22 September and Mudfa Works issued 13th October we enclose a comparison report for your information. This shows how the cost estimates you have provided have been taken into account in our Project Estimate.

Adoption of the existing SDS documents (Bills of Quantity and Preliminary Design Drawings) has aided analysis of the SDS/CSL estimates, the results of which are included within the attached report. For the purposes of this exercise the focus of attention has been on areas of significant variance.

The Infraco Cost Plan provided by CSL has highlighted several areas of concern within the SDS base estimate. These concerns have been investigated and where appropriate the SDS base estimate has been amended. For example, a significant disparity was identified within Section 54 – Highways. After analysis additional allowance has been added to the SDS Base estimate to cover highway reinstatements, fragmented work fronts, utilities interfaces and City Centre operations. Full details of these and other adjustments are contained within the report.

The Mudfa Cost Plan has been used to corroborate the Mudfa Contractors bid, providing additional comment on what is a complex element of the Project.

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Direct diah s s-maih Geoff Gibert<u>alia, itd.uk</u> web: <u>www.tis.lid.uk</u> Overall, The CSL estimates have been extremely useful in strengthening the Project Estimate and, in conjunction with benchmarking information recently received from Mersey Tram Project this has resulted in as robust an estimate for these works as is feasible for this stage of the Project.

Yours sincerely



Cc: John Ramsey & Lorna Davis of Transport Scotland

Edinburgh Tram Network

Infraco CAPEX review - SDS/CSL Reconciliation

Contents

INTE	ODUCTI	ON		.3
1	Comp	parison & Reconciliation		4
	1.1	High Level Comparison		4
	1.2	Section B1 ~ Track & Formation		4
	1.3	Section B2 - Tramstops		5
	1.4	Section B3 - Depot		6
	1.5	Section B4 – Highways		7
	1.6	Section B5 - Buildings		8
	1.7	Section 86 - Structures		8
	1.8	Section C - Supervisory and Controls		ğ
	1.9	Section D - Traction Power & OHLE		9
2	Conclusions			10
	2.1	Conclusions		10
3	Appendix A - High Level Comparisons (Section B1, B2, B3, B4, B5)			

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	SIDSTORY	CSI. Total	Miteranea	Variance
		į	Ē	Ē	
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
83	Depot	18,533,284	18,592,503	-59,219	-0.5
84	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	48.5

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 recommentations 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 allewances 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 Transtop 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/m3 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.

57 Section 86 - 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 5	
B1	Track & Formation	65,794, 5 45	0	65,794,545	
82	Tramstops	4,040,459	0	4,040,459	
83	Depat	18,533,284	600,000	19,133,284	
84	Highways	15,965,587	5,722,045	21,687,632	
85	Buildings	1,558,641	Ü	1,588,641	
86	Structures	23,890,572	885,000	24,775,572	
С	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 Infraco Scope of Work.

3 Appendix A

HIGH LEVEL COMPARISON

Bi	Track & Forn	nation	SDS 2Q03	SDS UPDATED	CSL 3Q06	Diff
B1	Section 1A	Newhaven to Foot o' the Walk	6,169,044	7,136,455	6,049,350	-1,097,109
81	Section 1B	Foot o' the Walk to McDonald Rd	2,459,968	2,844,576	2,333,750	-510,820
B1	Section 1C	McDonald Rd to Princes St	2,960,082	3,424,273	2,790,000	-634,27
В1	Section 1D	Princes St to Haymarket	2,445,503	2,830,156	2,277,750	-552,40
81	Section 2A	Haymarket to Russell Rd	3,415,349	3,950,934	3,778,581	-172,37
B1	Section 3A	Russell Rd to Crewe Tail	3,164,512	9,444,847	7,230,624	-2,214,22
В1	Section 3B	Crewe Foll to Caroline Park	3,114,143	3,602,494	2,853,394	-749,10
B1	Section 3C	Caroline Park to Granton Sq	2,628,437	3,040,621	2,622,500	-418,12
61		Granton Sq to Lower Granton Rd		o		
Bi		Lower Granton Rd to Newhaven		G		
61	Section 5A	Haymarket to Balgreen	2,596,918	3,004,159	2,207,450	-796,70
81	Section 5B	Balgreen to Edinburgh Park	7,161,023	8,283,994	7,986,899	-297,09
B1	Section 5C	Edinburgh Park to Gogarburn	4,317,034	4,994,019	4,305,586	-688,4
В1	Section 6	Depot?	4,389,940	5,078,357	6,081,200	1,002,8
B1	Section 7A	Gogarburn to Airport	4,345,189	5,026,588	4,865,857	-160,7
		Sub-totals £	£4.163.142	62 GG1 472		7 279 6
		Sub-totals E	54,167,143		55,382,921	_7,273,5
Sum	Unmeasured	Items 5%	2,708,357	3,133,074	0	-3,133,0
						-10,411,6

Section B1 - Track & Formation REV 8 SDS - CS Comparison High Level Comparison

HIGH LEVEL COMPARISON

82	Tramstops	SDS 2003	SDS UPDATED	CSI. 3Q06	DWf
	Newhaven Road	71,888	83,161	71,823	-11,338
	Ocean Terminal	67,888	78,534	173,668	95,134
	Ocean Drive	119,912	138,716	143,555	4,839
	Constitution Street	114,152	132,053	132,890	837
	Foot of the Walk	67,888	78,534	93,894	15,360
·	Balfour Street	67,888	78,534	93,894	15,360
	McDonald Road	67,888	78,534	93,894	15,360
	Picardy Place	67,888	78,534	129,658	51,13
	St Andrews Square	114,152	132,053	117,336	14,71
	Princes Street	131,152	151,719	97,949	-53,77
	Shandwick Place	75,888	88,945	93,894	4,949
	Haymarket	130,552	151,025	146,052	-4,97
*********	Roseburn	115,152	133,210	133,165	-4
	Roseburn Junction			133,165	133,16
	Ravelston Dykes	115,152	133,210	133,165	- 4.
	Craigleith	1.15,152	1.33,210	133,165	-4
	Telford Road	115,152	133,210	133,165	- 3.
	Crewe Toll	114,152	132,053	132,890	83
~	West Granton	116,912	135,246	143,830	8,58
r	Caroline Park	114,152	132,053	132,890	83
*********	Granton Waterfront	114,152	132,053	132,890	83
	Granton Square	115,912	134,089	143,555	9,46
	Murrayfield	118,152	136,680	138,831	2,15
	Balgreen Road	107,152	1.23,955	137,889	13,93
	Saughton Road North	108, 152	125,112	133,165	8,05
~	South Gyle Access	108, 152	125,112	128,332	3,22
	Edinburgh Park Stop	112,912	130,619	217,508	86,88
	Edinburgh Park	107,152	123,955	132,890	8,93
******	The Gyle	107,152	123,955	132,890	8,93
	Gogar Burn	97,352	1,12,618	131,779	19,16
	Inglision Park and Ride	80,248	92,832	149,610	56,77
	Airport	94,768	109,629	111,003	1,37
		3,175,216	3,673,144	4,154,294	481,15
	Unmeasured Items 10%	317,522	367,314	0	-367,31
	Note: CSL have priced Resebure Junction in error - but this is not incl in the above				
***************************************	Summary BZ - Transtops &	3,492,738	4,040,458	4,154,294	113,8

Section B2 - Trainistops REV 8 SDS-OS Comparison/High level comparison

HIGH LEVEL COMPARISON

83	Depot	905 2003	SDS UPDATED	C.5. 3Q06	Diff
63(1)	Control Room	msd under B3(8)	-	msd under B3(8)	-
83(2)	Equipment Room	msd under 83(8)		msd under pa(8)	
B3(3)	Depot Equipment	1,590,000.00	1,839,339	1,956,000	116,661
83(4)	Infrastructure Maintenance - Pits & Platforms	msd under 83(8)		nnsd under \$3(8)	4
83(5)	Stores and Materials	108,000.00	124,936	325,000	200,064
83(6)	Administration Management	msd under 83(8)		rasd under 63(8)	ne partit ě meto sec
83(2)	Staff Facilities	rnsd under B3(8)		rnsd under 83(8)	orani i me
83(8)	Depot Building	5,821,539.06	6,734,455	4,623,689	-2,110,766
B3(8)20	Power Centre	84,283,53	97,501	88,286	-9,215
8 3(8)21	External Depot Works	8.417,107.00	9,737,052	11,5 99,528	1,862,476
	Note CSI. Depot works include paving and hardstanding which are already incl in Highways (£615,475) and should be omitted from this				
		16,020,929.59	18,533,284	18,592,503	59,215
	Summary B3 - Depot E	16,020,930	18,533,284	18,592,503	59,219

HIGH LEVEL COMPARISON

84	Highways	SDS 2Q03	SDS UPDATED	CSL 3Q06	Diff
B4(1.)	Section 1A	1,745,633	2,019,378	3,426,613	1,407,235
84(1)	Section 18	1,002,681	1,159,919	2,595,358	1,435,439
B4(1)	Section 1C	2,814,475	3,255,832	5,130,771	1,874,939
84(1)	Section 1D	1,603,836	1,855,344	2,371,589	516,245
84(1)	Section 2A	68,809	79,599	241,112	161,513
34(1)	Section 3A	556,177	643,395	1,595,389	951,994
B4(1)	Section 38	731,919	846,696	968,590	121,894
84(1)	Section 3C	983,495	1,137,723	1,814,748	677,025
84(1)	Section 5A	164,138	189,878	503,035	313,157
84(1)	Section 58	615,445	711,957	1,203,716	491,759
B4(1)	Section SC	218,638	252,924	553,325	300,401
B4(1)	Section 7A	189,849	219,620	521,191	301,571
84(2)	Car Parks & Depot Access Road	1,306,043	1,510,853	1,943,146	432,293
84(3)	Cycle Ways	msd under B4(1)	-	incl elsewhere	
B4(4)	Utilities	by others	~	by others	
	3				3
**************		12,001,136	13,883,119	22,668,583	8,985,46
	Unmeasured Items 15%	1,800,170	2,082,467		-2,082,46
·····	Suntmary 84 - Highways £	13,801,306	15,965,586	22,868,583	6,902,99

HIGH LEVEL COMPARISON

85	Buildings	SDS 2Q03	SDS UPDATED	CSL 3Q06	Diff
B5(1)	Substations				
	Leith Sands 55	72,091	83,396	47,353	-36,043
	Leith Walk SS	54,406	62,937	27,083	-35,854
	Cathederal SS	77,500	89,653	109,027	19,374
	Haymarket Terrace SS	71,320	82,504	54,804	-27,700
	Russell Rd TPH SS or Roseburn Delta Junction SS	103,299	119,498	88,460	-31,038
	Craigleith SS	77,551	89,712	60,539	-29,173
	Granton Mains SS	75,691	87,560	55,292	-32,268
	Granton Road SS	78,171	90,429	60,964	-29,465
••••	Bankhead Drive SS	75,606	87,462	54,885	-32,577
	Jenner's Depository SS	73,128	84,596	47,645	-36,951
and the second second	Gogar Depot 5S	80,250	92,835	103,744	10,909
*******	Ingliston Park & Ride SS	71,731	82,979	40,423	-42,556
	Allowance - external enhancement of SS's	~		30,000	30,000
	Unmeasured Items to SS's (15%)	136,611	158,034		-158,034
85(2)	Wayside Equipment Cabinets	Msd under trainstop equip		Msd under tramstop equip	**
B5(3)	Travel Centre	300,000	347,045	333,300	-13,745
		1,347,353	1,558,641	1,113,519	-445,123
	Summary B5 - Buildings E	1,347,353	1,558,641	1,113,519	-445,12