

EDINBURGH TRAM INQUIRY

Q&A - IAIN McALISTER

INTRODUCTION

This Note covers the following matters:

- Introduction
- Delay analysis
- Infraco Extension of Time 2 claim (MUDFA rev. 8)
- Overall allocation of responsibility for delay
- The Mar Hall mediation
- Final points

Answers in blue coloured font

Introduction

- 1) Can you please supply a brief CV, showing your qualifications and experience (a) at the time you were involved in the Edinburgh Tram Project, and (b) now?

Appendix 01 contains a copy of my CV from circa 2009/10 when I became involved in the Edinburgh Tram Project

Appendix 02 contains a copy of my current CV.

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(both same
docs)

- 2) Over what period were you involved with the Edinburgh Tram Project?

I first became involved with the Tram Project in April 2009. That involvement continued until early May 2011.

- 3) Please describe your role and responsibilities throughout the period you worked on the project.

My role was, principally, to provide tie with independent expert services in respect of delay and extension of time claims being promoted by the Infracore Contractor, BSC.

- 4) Please explain how you came to be involved in the tram project.

(Please refer to Mr Robert Burt's answer to question No. 6 in his Q&A to the Inquiry)

Delay analysis

We understand that your work, and that of others at Acutus, included the analysis of delay in the Edinburgh tram project.

5) Please explain in overview and in general terms what such work involves.

(Please refer to Mr Robert Burt's answer to question No. 8 on his Q&A to the Inquiry)

6) What were the main issues which required to be considered in analysing delay on the tram project? Please separate them out and explain each one in overview.

There were a considerable number of different issues cited by the various parties as causes of delay. As I recall, the main issues were

- a) Delays to the programme of utilities diversion (works, predominantly, being carried out under the MUDFA contract) over-ran their planned completion dates, thereby breaching the site handover dates set-out in the Infraco contract.
- b) Unforeseen/unknown utilities were discovered during and after the MUDFA contractor had completed its works. These had to be investigated and then diverted (or worked around) to permit Infraco works to proceed.
- c) Design development resulted in changes to that which was to be built. The Infraco contractor was responsible for the design of most of the Infraco Works. Delivery of this design, included obtaining approvals and consents from statutory authorities and other third parties. In many instances this took longer than planned to obtain. Design development was also impacted by revised (and in some cases not yet fully defined) requirements of the Employer, statutory bodies and statutory consultees.
- d) Delays to the development of certain parts of the design due to disputes between tie and the Infraco contract as to who was responsible for addressing and resolving unforeseen matters.
- e) Some of Infraco's procurement of suppliers and subcontractors was delayed, leading to significant delays to commencement of the Infraco Works in a large proportion of the different sections of the Project.

7) In terms of their impact on the cost and time of the project, which of those (from your perspective) were the most significant? Please explain why.

Different sections of the project were affected by different issues at different points in time. During the period of my involvement:-

- a) Late completion of utilities diversions were, generally, a significant issue, on Sections 1 to 4.
- b) Later than planned delivery of designs and approvals, generally, affected all seven Sections.

Both of these, and many other issues, resulted in long delays to the commencement of construction works on site. While I was not involved in the quantum assessment of costs, I would expect prolongation of BSC's design and construction period to be a major component of the increased cost.

8) Were there issues that gave rise to particular difficulty or uncertainty? If so, what were they? Please explain the nature of the difficulty and uncertainty they caused, and how.

Infraco appeared to apply a very strict contractual interpretation as to the degree to which utility diversions had to be complete before it would commence construction in any of the sections or sub-sections. I was trying to get Infraco to make progress in areas where significant work could be commenced, thereby mitigating the consequential delay of over-running utilities diversions and/or the late discovery utilities in other areas within a sub-section.

In my experience it is impossible to predict, with a high degree of confidence, the time required to carry out utilities diversions, particularly in an urban environment where utilities have been installed, modified, repaired and replaced over many centuries. No one knows for sure what lies in the ground and what might have to be done to divert them while still maintain services to all those who use them. This uncertainty of what is existing leads to uncertainty as to what might need to be diverted. It is often the case, as it was on several occasions on the Edinburgh Tram Project, that existing, live utilities are only discovered when excavations for the new works (i.e. bridges, retaining walls, drains and tram tracks) are actually carried out.

9) Were the issues affecting the tram project unusual in any way, when compared to other projects you have been involved in, for example, in terms of their scale, complexity or number? Please explain your answer.

The physical nature of the works were not unusual. The Edinburgh Tram Project was a relatively large and complex project but there are many projects of similar scale and complexity undertaken throughout the UK every year. Constructing major infrastructure in a large, well established city is a complex and challenging task. Much is unknown and uncertain, particularly at the outset. As far as I can see, this project was not particularly unusual in that respect.

10) To the extent there were unusual issues, to what would you attribute that?

N/A

We understand that the Infraco contract was a bespoke contract.

11) To what extent in your view, if at all, was that a factor in the difficulties encountered by the project?

The change mechanism was somewhat complicated by the bespoke drafting. There were several aspects where tie and Infraco (and their respective legal advisors) held disparate opinions as to how the wording should properly be interpreted. The parties' failure to reach agreement, compromise or find some form of 'work around' to allow works to commence earlier than they did appears to me to have caused a significant proportion of the delay actually experienced

12) To what extent did it present challenges for Acutus' work?

Analysing delay and assessing entitlement to extension of time requires proper application of the appropriate provisions in the contract. The change mechanism is the central to that. As I have noted above, tie and Infraco held different opinions on how this mechanism should be properly operated. I applied what I considered to be the proper interpretation to the delay analyses undertaken by Acutus, and as guided by tie's legal advisers.

13) Please explain your answer, with examples.

I refer the Inquiry to my independent expert report submitted in the 'MUDFA 8' adjudication proceedings, the contrasting submissions made on behalf of Infraco and the Adjudicator's reasons for his decision.

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At least some of the delay issues affecting the Infraco contract were the subject of forensic analysis and/or were referred to dispute resolution procedures.

14) To what extent was this a complete analysis of all of the delay issues? (If a precise answer to this question is not possible, please provide your best estimate even if it is a rough one.)

I was involved in only one formal dispute resolution procedure, the 'MUDFA 8' adjudication. BSC was the referring party therefore tie was required to respond to what was claimed. My work was not an analysis of all of the delays. It was only an analysis of the matters BSC claimed were the causes of delay.

15) Assuming that not all such issues were the subject of such analysis, how much work and cost would have been involved in carrying out such an analysis? (Again, please provide your best estimate even if it is only impressionistic.)

I agree with colleague Mr Burt's answer to this same question from the Inquiry. If I may add, the difficulty in estimating what time and effort might be required is that under the terms of the Infraco contract it is for BSC to make its case (providing all appropriate supporting information) and for tie to respond. What we encountered was BSC making claims supported only by selective information and, apparently, withholding and refusing to provide other information which might undermine its case. For Acutus to attempt to conduct a delay analysis on all delay issues would require trying to find out information that was not being made available. Without knowing what information might become available and how that information might be secured, it is impossible to meaningfully estimate how much work and cost might be involved.

16) To put it another way, to what extent would it have been practicable for all of the disputed delay issues to have been analysed and resolved through the use of dispute resolution procedures; and what would the time and cost implications have been?

See answer to question 15) above

Infraco Extension of Time 2 Claim (MUDFA rev. 8)

Acutus (including, we understand, you) assisted tie in connection with the "Extension of Time 2" claim by BSC, for an extension of time arising out of revision 8 of the MUDFA programme.

17) What was your involvement (and, if different, Acutus's) in this issue?

I was instructed to provide an independent delay expert report to inform tie's response to BSC's referral.

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18)What was your understanding of it?

tie issued BSC with a revised programme for completion of the then outstanding utilities diversion work. This programme showed certain utilities diversions completing later than previously forecast. BSC claimed substantial extensions of time to the completion dates in the Infraco Contract.

19)What were the implications of this dispute for the project overall? Please explain your answer by reference to (a) the particular dispute, and (b) any issues of principle of wider application in the project.

As I recall, this was the first time that Infraco had sought the decision of a third party determiner in respect of its approach to its claims for extension of time. The decision would, most likely, establish the correctness or otherwise of its approach (i.e. to the extent that an Adjudicator's decision is legally binding until such time it is superseded by a decision in litigation).

In an email dated 30 July 2009 (CEC00800270), you made various observations following an extension of time meeting with BSC on 28 July 2009. These included:

- that BSC wanted to cut a deal in terms of time and money and did not want to get into a detailed assessment;
- your gut feel was that a 6 to 9 month extension for sectional completion C might not be too far off the mark, but that there were many concurrent delays which were BSC's responsibility;
- that whilst BSC probably wanted 9 months EoT with full time related costs, plus acceleration costs to achieve an earlier date, they would not be prepared to compromise on further EoT from numerous ongoing issues;
- there was an attraction in doing a global deal, but he had reservations

20)What was your understanding of these matters?

Having read again my email dated 30 July 2009 (CEC00800270) I think it provides a fulsome reply to this question and therefore I direct the Inquiry to it.

We understand tie did in fact offer BSC a 9-month extension of time (see, e.g., CEC00322642, 13 November 2009) with 6 months prolongation costs, but that this was not ultimately accepted.

21)What is your understanding of that matter?

I was not present in such discussions with Infracore (i.e. BSC) however I do recall tie saying to me that such an offer was being discussed.

22)Was that offer based on (or at least consistent with) Acutus' advice?

As I recall, tie appeared to be considering making such an offer before it received specific advice from Acutus in relating to this matter. I refer to the content of my email dated 30 July 2009 (ref. question 20 above) from which I think it is apparent that the offer is not inconsistent with Acutus' advice.

In an email of 2 November 2009 (CEC00818462), you addressed the scope for a compromise deal between tie and BSC in relation to extension of time. In that context, you said:

“Please forgive me for repeating myself but I do think that BSC has ongoing concerns over the delivery of design and procurement of the Works. Unless I am mistaken, I don’t think it will feel it is in a position to compromise very much, if indeed at all, on what it considers to be any of its means to secure the maximum EoT.”

23) What was your understanding of this point (and, in particular, the obstacles to a negotiated resolution)? (That issue was also touched upon in an earlier email – CEC00410186, 30 October 2009, said to incorporate Robert Burt’s thoughts and contributions.)

BSC was experiencing difficulties and delays in delivering design and procurement of its works it might not wish to ‘strike a deal / compromise’ on an extension of time for utilities diversions if that extension of time proved to be inadequate to accommodate its own delays.

Expert Report regarding Estimate in Respect of INTC No 429 MUDFA programme revision 8 delay and disruption resulting from incomplete utility works, 5 May 2010

Acutus produced a Report dated 5 May 2010, CEC00437606, entitled “*Expert Report regarding Estimate in Respect of INTC No 429 MUDFA programme revision 8 delay and disruption resulting from incomplete utility works*”. It states it was produced for the MUDFA rev 8 adjudication (para 1.1.1). The report was prepared by you with assistance from various others.

24) The report sets out its conclusions and the supporting reasons, but it would be helpful if you could summarise in overview its main findings and the key reasons for them, e.g.:

a) The defects in BSC’s estimate

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BSC's approach did not appear to me to comply with the requirements of the contract. Among other things, it did not appear to consider how the tie change could be implemented in the most cost effective manner. Please refer to paragraph 7.1.2 of my report which summarises my various criticisms of BSC's estimate.

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b) BSC's inappropriate method of delay analysis

BSC's chosen method of delay analysis avoids the need to consider any culpability on its part. Noting that there appeared to be significant delay for which BSC was culpable, the chosen method does not properly establish causation. In my opinion, the contract provisions require BSC's estimate to establish causation. Please refer to paragraph 5.2.5 of my report for further details.

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c) BSC's failure to address mitigation.

BSC's delay analysis makes virtually no attempt to mitigate delay despite this being a contract requirement.

Acutus' assessment of the extension of time (in section 6: that it would appear possible to mitigate all of the MUDFA rev 8 delays such that there would be no requirement to extend any of the four sectional completion dates) noted that there was a shortage of information from Infracore.

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25) Please explain in overview how this affected your ability to assess the extension of time (see, e.g., 7.1.6).

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The contract required BSC to implement tie change in a cost effective manner. BSC's estimate contained no information or explanation in this respect yet there appeared to be many ways in which delay mitigation measures (which BSC said it was not required to include) could result in time savings and substantial reductions to the additional payments BSC was seeking for

delay. For example, on one section it appeared that if BSC employed an additional 2 workers and one backhoe loader (JCB) for two weeks then delay to Sections C & D completion could be reduced by circa. 2 weeks. The cost of employing those resource would be approximately £2,000 to £3,000. This is to be compared with what I estimate would be a reduction in BSC's over-run costs claim of circa. £200,000 to £500,000.

Robert Howie QC's decision on the MUDFA revision 8 adjudication was issued on 26 July 2010 (CEC00375600, CEC00407650 and CEC00310163). He concluded that the only award of extension of time he could make was of 154 calendar days for section A; and that for sections B and C, BSC had failed to prove the length of any extension of time it was entitled to because its claim had been calculated on a misapprehension of its contractual rights (and he had no evidence of the length of the delay to which the JV was exposed by reason of the notified departure when that delay was calculated on the correct basis).

26) So far as you are aware, what impact did the decisions in this adjudication, and in particular the underlying reasoning, have on the parties in relation to the matter of extension of time?

As I recall, tie was pleased with the decisions because Mr Howie supported tie's view that Infraco's (BSC's) interpretation of its contractual rights was wrong. I have no knowledge of BSC's views or how it might have impacted on its thoughts.

CEC00375600
dated 7 June
2010;
CEC00310163
dated 16 July
2010

Overall allocation of responsibility for delay

In a letter of 23 October 2009 to Steven Bell of tie (DLA00001692), BSC said:

"It is our belief that the full details required by the contract to be provided by Infraco in respect of extension of time entitlement, relief from obligations, details of costs and losses and possible mitigation measures adopted in connection with the myriad

of Compensation Events notified to date cannot be ascertained until the resolution of the dispute concerning INTC429 [i.e., for delay and disruption arising from incomplete MUDFA works as a consequence of the MUDFA programme revision 8]. This is because the dominant cause of delay on the project is the delayed MUDFA Works. We are certain tie will understand that to perform any analysis against the Revision 1 Programme in respect of these secondary forms of delay would not produce any meaningful or reliable information upon which an extension of time could be agreed. It would be a categorical waste of resources for all parties. Once agreement is reached or a third party decision is declared in respect of INTC 429 we will be in a position to update the Programme.”

Cf. tie response, 19 February 2010 (DLA00001692_3)

27)What is your understanding of these points?

As I understand it, BSC wanted to secure extensions of time for the late completion of the MUDFA Works before it was prepared to re-cast is programme for use in preparing estimates for other Compensation Events. It appeared to me that such an approach was inconsistent with the requirements of the Infraco Contract.

28)To what extent do you agree with the point made by BSC?

I do not agree with the point made by BSC.

Report regarding Forensic Planning Exercise in relation to the Edinburgh Tram Project (draft), 24 December 2009

BSC to TIE dated
23 October 2009

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On 24 December 2009, you circulated a draft *Report regarding Forensic Planning Exercise in relation to the Edinburgh Tram Project* (CEC00583955 – report; CEC00583954 – email). We understand from Mr. Burt that the report was not updated to a finalised version.

29) Who commissioned this report, and why?

As noted on the front page of this report, it was prepared on the instructions of Susan Clark and Dennis Murray. I do not recall being given any specific reason why but I was aware that tie was trying to find ways to resolve all of the disputes it had with BSC and therefore, I presume, such a report would be to help inform it as to what BSC might properly be entitled to.

30) What, in overview, was the report's subject matter?

The report summarises the delay analysis work, associated with BSC claims, undertaken by Acutus during 2009. Please refer to sub-section 1.2 of the report for further details.

31) What, in overview, were its conclusions (especially insofar as they were important for the project overall)?

I believe that sub-sections 1.4 and 1.5 of the report provides a concise overview of the important issues.

32) To what extent was this report superseded by Acutus' *later* reports (see below)?

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To the extent that later Acutus reports address subject matter contained in this report, those later reports supersede this report. In effect, later reports reflect further information, events, discussions and analysis.

33) To what extent did this report represent an updated accumulation of work reported *previously* by Acutus? (See, e.g., the reports listed at 3.2 and in Appendix E.)

That was the purpose of this report.

34) What were the implications of the report for the project?

I have no knowledge of what tie did with this report and therefore cannot opine on its implications for the project.

35) How did tie/CEC respond to the report?

I have no knowledge in respect of this question.

36) What use was made of the report?

I have no knowledge in respect of this question.

At section 1.4, the report addresses tie's concerns about BSC's notification of delay for which BSC were responsible; BSC's estimates of cost and programme impact; BSC's refusal to work, including on areas where utility diversions were incomplete.

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37)What was your understanding of these matters?

tie had been trying to find ways to get BSC to progress the Infracore Works in areas where utilities had been cleared. BSC was refusing to start anywhere in an individual section that contained any yet to be diverted utilities. In some sections where an unforeseen, relatively minor utility was discovered, BSC refused to start any work, despite the fact that only a very short length of what was typically a 2km to 5km long section was affected by the discovered utility. BSC's argued that in doing so it was complying with the contract.

At 1.5.3 and 1.5.4, the report is critical of BSC's method of delay analysis.

38)Please explain these criticisms.

In simple terms, BSC's method of analysis did not include consideration of its own rate of progress on design, approvals, consents and construction. tie directed me to the fact that such matters were experiencing significant delay and the evidence I saw affirmed that. That being so, BSC was in culpable delay, a fact that its delay analysis simply ignored. Such an approach has consistently been criticised in the UK courts because it does not establish causation.

39)Please explain, in overview, Acutus' analysis and conclusion reported at section 1.6

Examination of BSC delay analyses found them to be over-stated as a result of the methodology used and the lack of mitigation. They did not reflect a cost effective implementation of the change they were analysing.

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40) Please explain in particular the impact of MUDFA delays at section 1B (e.g., 1.6.9, 1.6.10 and 1.7.2).

Sometime towards the end of 2009 I became aware of the discovery of another unforeseen utility. It was located in Section 1B (Leith Walk). It was a large diameter, underground supply main (gas, as I recall). I was advised that this would now take many months to divert. It was located in a busy road junction area of that section and therefore would inevitably result to it taking much longer than planned to complete the tram works through this section. That being so this would be the final section of the track works to complete and therefore it would most likely drive the overall completion dates for Sections C & D.

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The report discusses three claims by BSC for extension of time: the MUDFA rev 8 claim (section 4); the EoT entitlement programme (section 5); and programme (revision 2) (section 6).

41) How (in overview) did these various applications relate to one another? For example, to what extent did they seek different extensions of time, and to what extent did they overlap?

Each claim sought acceptance by the of a revised programme for the works. Each projected delays and attributed them to matters for which the was considered to carry liability. They relate to each other in respect that the second and third submissions develop BSC's initial MUDFA Rev. 8 claim for extension of time by incorporating additional/updated information and introducing new events.

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At 1.6.11, the report notes that the assessments might be subject to revision when further information became available.

42) In overview, to what extent was this report provisional and based on incomplete information?

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The report was, by necessity, entirely provisional. There remained the risk that BSC's interpretation of the contract wording would find support from a third party determiner. BSC's claims lacked substantiation which only it could provide, yet it was refusing to do so. It was evident that BSC had its own challenges to overcome and that there were many, significant delays for which it appeared to carry liability, but most of the information and evidence associated with such matters was in BSC's possession. It was refusing to divulge it. If, in the future, BSC provided such information, or was forced to disclose it by the courts, we did not know what it might prove and to what extent it might support or undermine BSC's claims.

43) Please summarise, in overview, the opinion and advice in section 1.7.

At 1.7.3 to 1.7.6, the report notes that, due to concurrency, "*considerable sums*" of Infracore costs might fall to be excluded from their entitlement to prolongation costs associated with extended time, and emphasised the importance of comprehensive records. It discussed efforts tie had made to improve its record keeping, but that "*there is still room for improvement*", with the work described in section 7 being particularly important.

44) Please explain this point in overview.

To loosely quote several authoritative texts;

"any party who experiences formal dispute resolution learns three hard lessons":-

- a) *The importance of records*
- b) *The importance of records*
- c) *The importance of records*

CEC/tie had entered into a form of contract (fixed price / lumps sum design & build) that sought to transfer a large proportion of risk to the contractor (BSC). As part of this the design team, initially employer by CEC/tie, was transferred to BSC. Consequently,

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tie now had less visibility of what was actually being done and achieved in terms of developing and delivering design to allow construction to progress. As noted in answers to other questions, BSC's claims for extension of time and related additional payment, generally, ignored any difficulties it was experiencing with design delivery. I could see evidence that, in general, this was the case but tie had very limited access to the contemporaneous records of BSC and its designers. I advised tie to gather as much information as it could including what its staff could see and hear as they went about their daily business.

The additional difficulty tie faced was that BSC's claim submissions lacked detailed substantiation. In my experience, should their assessment be determined through formal dispute resolution proceedings, further details might then be produced by BSC. Not knowing what these details might be and how BSC might develop its lines of argument made it very difficult for tie to assess what its actual liabilities might be. If tie was to be able to properly defend against unjustified or over-stated claims it would need reliable and comprehensive contemporaneous records on all of what BSC, its designers and subcontractors actual did. My advice was that tie made a concerted effort to collate as much potentially relevant information as possible.

45) Had tie's records been inadequate prior to Acutus' advice? (see, e.g., para 7.1.4, which notes that following processes instigated in 2009,

"the project record, as a whole, has shown a marked improvement over that previously being compiled. Much of this information is provided by, or under the direction of, tie's Project Managers. The quality and quantity of the records varies depending on the individual involved. This has been drawn to the attention of the tie senior management who have taken an action to address this issue.")

I think it would be more accurate to state that BSC's approach to administration of the Infracore contract and its promotion of claims under it, required enhanced record keeping by tie. (I refer to my answer to questions 42 and 44 above in respect of BSC's refusal to provide information). tie recognised this matter through our discussions with them and sought our advice in that respect.

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46) Please explain in overview Acutus' advice on record-keeping.

Please refer to my answer to Question 44

47) To what extent did tie follow that advice?

tie appeared to take my advice on-board and, as I understand it, directed its project management staff accordingly.

Mar Hall mediation

A mediation took place at Mar Hall in March 2011, involving CEC, tie and BSC, following which the parties' disputes were settled. We understand that you and others at Acutus provided information to McGrigors and tie for use by them at the mediation, and that this included a draft report by you issued on 4 March 2011 on INTC 536, and an email on 4 May 2011 with "*estimated information for [tie's] use in an EoT liability risk assessment*" (TIE00899963).

48) We do not appear to have a copy of the report dated 4 March 2011. Can you please supply a copy of it, and any finalised version of it?

Appendix 03 contains a copy of Acutus Draft Report on INTC 536 dated 31 March 2011. Previous versions of it were issued to tie for discussion. The 31 March 2011 draft appears to be the last version issued to tie and, as we recall, the only version issued to tie that contained all of its appendices.

49) Can you summarise the key conclusions of your reports and, to the extent you know, how those reports influenced CEC/tie's approach to the mediation?

I include below the conclusions for my report.

1.10 Conclusions

- 1.10.1 I consider the analysis of delay contained with the INTC 536 Estimate has not been prepared in accordance with the Infraco Contract and does not provide justification for awarding an extension of time.
- 1.10.2 It appears to be a claim incorrectly pursued under Clause 80 of the Infraco Contract and as such, this may provide grounds for its rejection.
- 1.10.3 The analysis within the INTC 536 Estimate is based on inaccurate and unreliable information used in, and produced from, an inappropriate method of delay analysis. It does not evidence actual delay arising from the later than planned completion of MUDFA Works and other utilities diversions. Consequently, it does not provide evidence to support the Infraco's claim.
- 1.10.4 Should I be proven wrong in my dismissal of the claim, and there is acceptance of the legitimacy of the Infraco's method of analysing delay, I consider that the periods of delay valued under that claim should be adjusted as per the summarised data in the table below.

Section	EoT claimed in INTC 536	Adjusted assessment of EOT	Comment
A	241	154	As per the INTC 429 adjudication decision as there has been no further MUDFA Works delay affecting that section since.
B	286	0	As per the INTC 429 adjudication decision as there has been no further critical MUDFA Works delay affecting that section since.
C	461	350	Deduction of 111 days for correction of errors including the implementation of the Adjudication Decision on INTC 429.
D	461	350	Deduction of 111 days for correction of errors including the implementation of the Adjudication Decision on INTC 429.

I have no knowledge of how my reports may have influenced CEC/tie's approach to the mediation.

50) Did you supply tie/CEC with any other advice for use at the Mar Hall mediation, or in relation to the settlement implemented thereafter, on:

a) Allocation of responsibility for delay which had arisen to date on the project; and/or

No.

b) BSC's entitlement to prolongation costs in relation to that delay?

No.

Final points

51) What were your views in general on the project management and governance of the tram project?

I had no direct experience of the manner in which the project was actually managed. From what I could see within tie, there appeared to me to be nothing unusual about how it was structured and operating. It appeared to me that tie's management team was professional and diligent.

I had no involvement with those responsible for governance of the project.

52)What were your views on the various bodies (and the senior personnel in those bodies) involved in the project management and governance of the tram project (including tie, TEL and CEC)?

I only had involvement with tie.

The individuals I worked most closely with, namely Deputy Project Director, Susan Clark and Programme Manager, Tom Hickman I found to be particularly hard working and conscientious. Although I had less direct interface with Project Director, Steven Bell, from what I could see he was equally hard working and conscientious. They all appeared to me to be people who really cared about the project and gave of their all to try to resolve the difficulties it faced.

53)What do you consider to have been the most significant factors leading the Edinburgh tram project having been over budget and over programme, and having a reduced scope?

It appears to me that site investigation, Employer's design, formal approvals, formal consents and preparatory works were insufficiently advanced at the point in time when the Infraco Contract was signed and contractual completion dates set. The contract sought to transfer the majority of the risk to the Infraco contractor yet there was so much remaining uncertainty and many matters yet to be decided by the Employer and other statutory bodies. In such circumstances, the objective of a fixed price / lump sum contract to secure cost and time certainty for the Employer will inevitably be compromised.

54) Are there any other issues, not covered in this note, which you consider to have had a material bearing on the cost, scope and duration of the Edinburgh tram project?

No.

55) If so, can you please explain them as precisely as possible?

N/A

56) Are there any documents which you consider to be of importance to the inquiry which have not been supplied to you with this note?

No.

I confirm that the facts to which I attest in this witness statement, consisting 24 pages, are within my direct knowledge and are true. Where they are based on information provided to me by others, I confirm that they are true to the best of my knowledge, information and belief.

