

SUSAN CLARK – Areas for Discussion

This note identifies the broad subject areas which we would like you to address. We have tried to include all documents that may assist you in answering the Inquiry's questions.

In addition, we would be grateful if you would provide a copy of your full CV setting out your vocational qualifications and experience.

The following matters are covered in this Note:

- Introduction
- The Trams Project - General
- Events between 2004 and 2006
- Events in 2007
- Events in 2008 (January to May)
- Events in 2008 (June to December)
- Events in 2009
- Events in 2010
- 2011 (including Mar Hall and the Settlement Agreement)
- Final Matters

INTRODUCTION

1. By way of introduction, it would be helpful if you could provide an overview of the following matters:

(1) What were your main qualifications and vocational experience prior to joining TIE?

Qualifications - BSC Chemistry, MBA, NEBOSH Certificate. Experience – 13 years rail industry in operations, maintenance & projects, latterly at a senior level. 18 months in Scottish Water in a commercial role. 2 years in TIE as project manager, then project director, of EARL.

(2) What was your experience of major infrastructure projects, including tram and light rail systems, prior to joining TIE?

Acted as Sponsor's Agent (Client role) for a number of railway infrastructure projects, including a £25m resignalling scheme at Cowairs. Senior Contracts Manager for the railway infrastructure maintenance contract for the Scotland Zone. I was then employed by Scottish Water as a commercial manager before joining TIE.

(3) What was your experience in the project management of civil engineering works, including utilities diversions, design and procurement matters prior to joining TIE?

My role, referred to previously, as Senior Contracts Manager included involvement in the procurement of contractors.

2. During your employment with TIE:

(1) What were your job titles (and between what dates)?

2004 – 2005 : Senior Project Manager, EARL; 2005 – 2006 : Project Director, EARL; 2006 – 2011 : Programme Director, Tram

(2) What were your main duties and responsibilities in each role?

Senior Project Manager, EARL - Procurement of a range of professional & technical advisors and subsequent management of the contracts and relationships with them. Establishment of project controls for the project which included risk framework, budget, programme and change/costs control.

Project Director, EARL - As above but with responsibility to report to the EARL Project Board as well as the CEO of TIE.

Programme Director/Delivery Director/Deputy Project Director, Tram - Initially responsible for the management, through the Programme Manager, of the overall Tram programme, the utility diversion contract management, through the MUDFA Project Manager and the procurement of early works such as ecological works through the Early Works Project Manager. The MUDFA scope of works then moved to another reporting line, and management of the Risk Manager, 3rd Party Agreement Manager and Reporting Manager was transferred to me.

(3) In each role, to whom did you report and who reported to you?

Senior Project Manager, EARL – reported to the Project Director, EARL. I managed a small team who reported directly to me.

Project Director, EARL – reported to the CEO TIE. My direct reports were the same small team referred to above with new Project Managers for certain disciplines such as design.

Programme Director Tram – reported to the Project Director, Tram. My direct reports changed over the life of this role and as the project developed. They included the MUDFA Project Manager, Programme Manager, Early Works Project Manager and latterly the Risk Manager, Reporting Manager and the Manager responsible for 3rd party agreements.

(4) We understand that you attended meetings of the Design, Procurement and Delivery sub-committee, the MUDFA sub-committee and the CEC/TIE Legal Affairs Committee? What was the role of each of these committees? What was your role on each committee? Did you attend any other committee or sub-committee?

Design, procurement & delivery sub-committee – responsible for overseeing the progress of the design, procurement & delivery of the Tram project. I attended in my role to report on areas within my responsibility and gather information.

MUDFA sub-committee – responsible for overseeing the progress with the utility diversion project. My role was to report in relation to this contract.

CEC/TIE Legal Affairs Committee – the committee provided a vehicle for TIE to brief CEC on the contracts in relation to the Tram project. When I attended this committee it would be in order to provide a briefing on behalf of the Commercial Director who was negotiating these contracts.

I do not recall attending any other sub-committees.

- (5) We understand that you attended meetings of the Tram Project Board. From approximately when did you first start attending these meetings? What was your role at these meetings?

I cannot recall the date I started to attend the Tram Project Board but when I did, my role was to provide information relating to progress of the Tram Project and to answer any questions that the Tram Project Board members may have had in relation to the Tram Progress Report which was produced and circulated to them every month.

THE TRAM PROJECT - GENERAL

It would be helpful if you could provide an overview of the matters in this section.

Procurement

3. In relation to the procurement strategy for the tram project:

- (1) What was your understanding of the main elements and objectives of the procurement strategy for the tram project?

By the time I joined Tram, the procurement strategy had been agreed and was in the process of being implemented. However, my understanding was that there were 4 key strands – Design (which would be novated to the main Infraco contract), Multi-utility diversions contract (MUDFA), Tram Vehicle contract and the Main Infrastructure contract (INFRACO). The main objectives as far as I understand were to reduce the risk of cost and programme overruns to the project: get design started, for tendering purposes (so that bidders had a design that they were able to price). Divert utilities early, to avoid delay to the main infrastructure contract, and as efficiently as possible, through a multi-utility agreement.

- (2) How important was it to obtain a fixed price for the Infraco contract? How was that to be obtained?

I understood that obtaining, as far as possible, a fixed price contract, would be desirable because it tied in with the objectives of the procurement

strategy. The objective was that the negotiation of such a contract, by the Commercial Director, would be facilitated by us having completed as much advance design and work as possible to reduce the risk premiums and opportunities for variations.

- (3) In the event, do you consider that the aims of the procurement strategy were met (and, if not, why not)?

I understand that the objectives to get design started and commence utilities diversion early were achieved, but that the design and utility diversion work was not sufficiently advanced at the time the Infracore contract was awarded. Beyond that I am unable to comment as I was not directly involved in the procurement process.

Design

4. A number of documents noted difficulties and delay in carrying out the design for the tram project. By way of overview:

- (1) What were the main difficulties and delays encountered in carrying out the design work?

When I joined the team this work was already underway and the contractor had been appointed. My recollection is that the design contractor was not delivering to the programme.

- (2) What were the main reasons for these difficulties and delays?

My recollection is that there may have been difficulties arising from the planning authority requirements and the mobilisation & leadership of the design team. However as I was not there at the time I am unable to offer further comment.

- (3) What steps were taken to address these difficulties and delays?

Meetings were held between senior managers (CEO level) in both organisations to try and improve the performance of the design contractor. In relation to the planning issues a Charrette process was implemented.

- (4) Were these steps successful (and, if not, why not)?

To a degree, but they did not bring about the level of improvement required to keep the programme on track. However, the situation may have been worse if these steps had not been carried out; it is impossible to say in hindsight.

Utilities

5. A number of documents noted difficulties and delays in relation to the utilities diversion works. By way of overview:

- (1) What organisation was responsible for instructing/undertaking the utilities investigations?

I cannot recall if it was TIE or the Designer (SDS).

- (2) What were the main difficulties and delays encountered in progressing the utilities works?

Delay in the actual design work; Location of existing utilities unclear; Co-operation with utility companies was poor to start with.

- (3) What were the main reasons for these difficulties and delays?

Designer not performing to contract timescales; Lack of, and inaccurate, records from the utility companies; Multi – utility agreements was not a normal/familiar format for the utility companies.

- (4) What steps were taken to address these difficulties and delays?

Pressure put on design contractor to perform; Additional trial pits dug to validate records; Worked with the utility companies to provide liaison officers.

- (5) Were these steps successful (and, if not, why not)?

To a degree but again ultimately not enough to keep the programme on track.

Risk

6. In relation to risk:

- (1) Who was responsible for managing and monitoring risk in the tram project? Did you have any responsibilities in that regard?

The risk & insurance manager had overall responsibility. The risk & insurance manager reported to me by the end of the project although throughout the project there was a change in reporting lines. All members of the project, including contractors, had a responsibility to identify risks and ensure these were captured in the project risk register.

- (2) What were considered to be the main risks in the tram project that could lead to increased cost and delay?

Late design; Design changes; Unknown utilities & delay to the utility diversions; Ground conditions; Archaeological.

- (3) What steps were taken to avoid or reduce these risks?

Early design; Early diversion of utilities & surveys; Early archaeological surveys and excavations; Overall procurement strategy.

- (4) What was your understanding of the Quantitative Risk Approach adopted in the tram project?

My understanding of the Monte Carlo system being used was limited. This was the responsibility of the Risk & Insurance Manager . However, I was familiar with the general principles of risk management.

(5) Were the steps taken to avoid or reduce risks successful (and, if not, why not)?

This is subjective. We do not know what might have happened had steps not been taken to reduce these risks and if an alternative procurement strategy had been adopted.

(6) Did the approach to managing risk in the tram project differ to the approach to risk adopted in other projects you have worked on?

No, however, the complexity of this project differed in terms of the number of interfaces – technically and contractually and working in a moving city and political environment.

In the following sections we look in more detail at particular events between 2004 and 2011. Please, of course, feel free to refer back to your previous answers if you consider that you have already dealt with these matters in your response to the above questions.

EVENTS BETWEEN 2004 AND 2006

7. By way of overview:

(1) What was your involvement in the tram project between 2004 and early 2006?

None – apart from being part of the overall team and managing any interfaces between tram and the EARL project.

(2) Do you have any comments on events during this period?

Although I was not involved in the project, I was aware of a high level of political and public opposition to it during this period as it went through the parliamentary consent phase. I think that this set the scene in terms of the uphill struggle the project had to maintain political and public support. Additionally, at this time the project was being run as three lines with a Procurement Director working alongside on the overall procurement strategy. At this stage, personnel who had been involved in developing other tram networks were involved and some continued through the project.

8. By e-mail dated 6 September 2006 (**CEC01792967**) Geoff Gilbert attached a draft report on the issues and problems with the procurement strategy and proposed solutions.

Among the issues noted in the draft report (**CEC01792968**) was that delivery of the assured Preliminary Design had slipped by three months and the award of the MUDFA contract had slipped by four months. It was also noted that delivery of the strategy was also contingent on consents (TTROs, TROs and key planning consents) being obtained before conclusion of negotiations and Infraco bidders

having the necessary design and consent approval information at commencement of the bid period and within the early stages of the bid period.

A number of proposals were set out to seek to mitigate the impact of the issues and problems, including to identify with the bidders the price critical design, performance and consents information that they required etc.

- (1) What were your views on the matters in the draft report, including Mr Gilbert's proposed solutions?

I had just joined the Tram project at this point and so my knowledge was limited. However, Geoff Gilbert's summary seemed to be a fair reflection on the status at that time.

- (2) Were the proposed solutions adopted?

As far as I can recall, yes.

- (3) Were they effective (and, if not, why not)?

They allowed the procurement process to continue and so in that respect they were successful.

9. An e-mail dated 11 September 2006 from Alasdair Slessor, MUDFA Project Manager, TIE (**CEC01793989**) attached a paper on the effect of Charrette reviews on MUDFA and other utilities works.

The paper (**CEC01793990**) stated that "*Charrette reviews of a number of areas of the tram lines are under consideration. Due to their timing, they will have potentially significant impacts on the utility programme, including the design work, the MUDFA site works and other utility diversion works*". The main areas affected were Constitution Street, Leith Walk, Picardy Place and St Andrew's Square.

- (1) In the event, did Charrette reviews cause significant delays to the utility programme, including the utility design and diversion works?

As I recall, Charrette reviews were seen as a solution to try and resolve design issues, but I think they were a contributory cause of significant delays.

- (2) To what extent did other Charrette reviews, in particular, for structures, cause delay or difficulties? (see e.g. (i) a notice of a structures Charrette meeting, **CEC01787529**, (ii) e-mail dated 13 December 2006 from Andie Harper commenting on a Charrette report by CEC, **CEC01787528**).

They had a significant impact on the programme. Lack of decisions on these meant design could not be progressed and planning consents obtained, and this had a knock on impact to MUDFA and then Infraco.

10. E-mails between Gavin Murray and you in September 2006 (**CEC01784543**) noted an issue concerning use of the Preliminary Design, which had not been formally accepted, in the Infraco tender documentation.

(1) What design was originally anticipated would be included in the Infraco tender documentation (e.g. formally accepted Preliminary Design and/or Detailed Design)?

I understand that originally it was anticipated that it would be detailed design.

(2) Why was that design not available?

Delays which have been explained in my previous answers.

(3) What design was included in the Infraco tender documentation?

I understand that it was a combination of both preliminary and detailed design.

(4) Did that end up causing problems at a later stage?

Yes.

11. A "dashboard" style SDS report for September 2006 (**CEC01796735**) showed that only 9.2% of Detailed Design had been undertaken against a planned 43% of Detailed Design.

(1) Why was Detailed Design late?

I had only just joined the Tram project at this point, but I understand that the Charrette process was a significant factor along with the performance of SDS.

(2) What problems did that cause?

Lack of the detailed design impacted on the overall procurement strategy and the production of the invitation to tender documents. It also impacted on the design of the utility diversions which became another source of delay on the project.

(3) What steps were taken to address the problem of late Detailed Design?

Continued efforts with CEC to try and accelerate the CEC decision making process. Also management of SDS by the appointment of a TIE contracts manager for this contract.

(4) Were these steps effective (and, if not, why not)?

Whilst the CEC decision making process was in my view speeded up, I do not consider that CEC understood the gravity of the impact this was having on the project timescales and costs despite this risk being raised with them. The appointment of the contracts manager gave more visibility on progress by the contractor.

12. In October 2006 the MUDFA contract (**CAR00000300**) was entered into between TIE and Amis Infrastructure Services plc (AMIS) (AMIS was acquired by

Carillion plc in February 2008).

An e-mail exchange at that time noted delays in producing the utility design (CEC01807868). Alisdair Slessor, TIE, noted that what had been offered for the June delivery date "was no more than 50% complete, with very grave concerns on the quality of that".

(See also (i) Mr Slessor's e-mail dated 9 November 2006, CEC01810026, in which he noted that the utility design dates appeared to be "going backwards" and "will not allow us to start on time" and (ii) his e-mail dated 21 December 2006 (CEC01816242) which noted that "Poor performance by SDS to deliver reasonable design for utility works must surely continue to be the biggest single risk to the programme").

(1) Why was there a delay in the production of the utilities design?

Poor performance by SDS; Impact of Charrette process on the design and therefore utility diversions design; Lack of existing utility information from the utility companies.

(2) What problems did that cause?

Impact on the utility diversion programme as lack of design slowed the physical start on site.

(3) In an e-mail in the same chain, Trudi Craggs noted her frustrations. What were your views?

I noted Trudi's frustration but this was a complex project and process and I felt that the most important priority was to try and find solutions to the various issues causing frustration across the project.

13. A report to Council on 21 December 2006 (CEC02083466) recommended approval of the Draft Final Business Case (CEC01821403).

The report explained that the estimated capital cost of phase 1a was £500 million (and the estimated cost of phase 1b was £92 million).

The draft FBC noted that the procurement strategy was intended to "Transfer design, construction and maintenance performance risks to the private sector ..." (p16), that "Following novation of SDS, the design risks pass to Infraco" (p86), that "Full design risk passed to Infraco post contract award" (p95) and that "The creation of the Infraco contract as a lump sum contract transfers the pricing risk to the private sector" (p97).

It was noted that "It is expected that the overall design work to Detailed Design will be 100% complete when the Infraco contract is signed" (p84) and that risks associated with novation would be mitigated by ... "Detailed design being largely completed prior to award of the Infraco contract" (p86).

It was noted that a rigorous Quantitative Risk Allowance had been applied and there was considered to be a 90% chance that costs would come in below the risk-adjusted level and that "The level of risk allowance so calculated and included

in the updated estimate represents 12% of the underlying base cost estimates. This is considered to be a prudent allowance to allow for cost uncertainty at this stage of the project and reflects the evolution of design and the increasing level of certainty and confidence in the costs of Phase 1 as procurement has progressed through 2006" (paragraph 9.11).

It was further noted that "TIE has continued to comply with the HM Treasury recommendations for the estimation of potential Optimism Bias and has determined, in consultation with Transport Scotland, that no allowances for Optimism Bias are required in addition to the 12% risk allowance" (paragraph 9.12); and that "Optimism Bias has been shown in Mott MacDonald's Review of Large Public Procurement in the UK, to be eradicated by the current stage of FBC production, in view of greater scheme certainty and mitigation of contributing procurement, project specific, client specific, environmental and external influence areas" (paragraph 10.44).

(1) Did you have any input into the report to Council or the Draft FBC?

Limited as I had only joined the Tram Project a few months previously.

(2) What was your understanding at that time as to the steps that would be taken to achieve the procurement objectives in the draft FBC noted above?

My understanding was that we would continue to work to try and deliver the objectives of the procurement strategy.

(3) What was your understanding of the extent to which detailed design would be complete (i) when bids were received for the Infraco contract and (ii) when the Infraco contract was signed?

At that point in time as I recall we anticipated that design would be detailed design/Issue for Construction drawings both at the point bids were received and when the contract was signed.

(4) Are you aware who in TIE determined, in consultation with Transport Scotland, that no allowance for optimism bias was required in addition to the 12% risk allowance? Why was that decision taken? What were your views on whether that was appropriate given the slippage in the procurement programme and the delays and difficulties with design?

No – I am not aware who made this decision in TIE or Transport Scotland or why that decision was made. I did not have views on the issue at the time.

EVENTS IN 2007

14. In January 2007 David Crawley undertook a review of the tram project, which consisted of interviewing various individuals and produced a slide presentation of his findings (CEC01811257).

(1) What were your views on the comments by Trudi Craggs at page 8, including that "Many personnel changes leading to lack of continuity – few now understand the contracts and context of issues as they arise", "tie believes risk

had been laid-off through contracts, and, at first, everyone sat back and let things run – except there were too many gaps and oversights”, “Programme not sustainable” and “Use the hiatus of the political process in May to re-think the project and ‘re-start’”?

I understand Ms Cragg's views. I believe that the process undertaken by David Crawley was intended to elicit frank responses with a view to identifying perceived problems or shortcomings. He was brought in to see what needed to be improved upon.

(2) What were your views on the themes from the interviews set out at page 19?

I am not sure I was party to this report – I do not recall it. However, many of the issues identified here are issues which I am aware of.

(3) Did you consider at that time that there was a need for improvements and, if so, in which areas?

It is difficult to say in hindsight. The team were actively involved in dealing with the issues. As an example, Ailsa McGregor was brought in to manage the SDS contract.

(4) What changes, if any, were introduced following Mr Crawley's review (and following Mr Crawley's appointment as Engineering Director)?

I cannot recall.

(5) To what extent were these changes successful?

As I cannot recall I cannot comment on this.

15. E-mails dated January 2007 (**CEC01811518**) noted that *“someone was coming in to lead on the design”*. Ailsa McGregor expressed her concern that *“we do not deal with the issues and just pretend they do not exist and are ‘somebody else’s responsibility”*.

(1) What were your views on these matters?

This was I understand a view on the role of TSS versus the TIE team being expressed by Ailsa. It was not a matter in which I was directly involved.

(2) We understand that Mr Crawley was brought in as TIE's Engineering Director, with responsibility for design. Who within TIE had responsibility for design before Mr Crawley's appointment?

I understand that this was Trudi Craggs through Ailsa McGregor who was the PM for the SDS contract.

(3) With the benefit of hindsight, should someone like Mr Crawley have been brought in with responsibility for design at the beginning of the design process i.e. around the time of the SDS contract in September 2005? Why was that not done?

It may have been helpful for someone like this to be appointed earlier. I do not know why this was not done as I did not work for the project at the time.

16. AMIS's monthly report for February 2007 (CEC01835674) stated (p.5, para 4.1) "*The current construction programme is not supported by IFC/AFC Utility design drawings and AMIS MUDFA are now seeking work around solutions on Sections 5B [Balgreen Road to Edinburgh Park], 5C [Edinburgh Park to Gogarburn] and alternative construction works at Ingliston Park/Ride and Gogarburn Depot*".

(1) What was your understanding of, and views on, these matters?

I would agree with the statement made and note that AMIS were trying to find workaround solutions.

17. A document dated 8 February 2007 from TIE to Transport Scotland (ADS00017) noted that both Infracore bidders "*are protecting their risk position pending receipt of more detailed design information and completion of due diligence*", that "*There is a nervousness on the part of both bidders in respect of the nature of the output, depth and delivery of buildable designs to programme by SDS*" and that "*To achieve this, SDS's performance and their performance in the perception of the bidders needs to improve and bidders need to undertake due diligence on the designs before award, or for the critical risk and price elements before coming to a final deal on the Infracore contract*".

(1) What was your understanding of, and views on, these matters?

I agree with the points made. The report outlines the issues being raised by the bidders.

18. An e-mail dated 27 February 2007 from Matthew Crosse, Tram Project Director (CEC01793690) noted (item 5) that you had been tasked to deal with the issue of "*MUDFA/SDS/AMIS programme mismatch can be solved by careful bespoke programme planning, taking into account dropping of 1a, real time it takes to get SUCs to approve drawings*".

(1) What was the issue? How had it arisen?

The issue was the mismatch between the original SDS programme for utility design and the actual progress of the SDS utility design. It had arisen through slow progress by SDS, design uncertainty and Charrette and lack of utility records.

(2) What was done to try and resolve the mismatch?

As I recall we were reworking the programme to focus on the AMIS delivery programme and by de-prioritising designs for Phase 1b

(3) Were these steps successful?

To a certain extent. I would have to analyse the documentation which followed in order to give a detailed response.

19. You were the author of TIE's Project Management Plan for the tram project dated March 2007 (**ADS00015**).

(1) Very generally, what was the purpose of that document? Do you have any further comments on the document?

It set out the intended project management arrangements for the delivery of the tram project including governance, team structure and contract structure. There were changes to the team structure and individual responsibilities through the life of the project – as I recall however this document was not continuously updated and accordingly these changes would not necessarily have been reflected in the document.

20. By letter dated 19 February 2007 (**CAR00000910**), Andy Malkin, Project Manager, AMIS, sent Mr Slessor a MUDFA Report and Recommendation to Manage the 'Transition Gateway' from MUDFA Pre-Construction Services (PCS) to Construction Services.

He stated that it was imperative to convene an Extraordinary MUDFA Board Meeting to discuss and resolve a number of key issues and that without mutual appreciation and understanding of these issues at senior management level *"the current contract position may well degrade and become untenable"*.

By letter dated 7 March 2007 (**CAR00000917**), Mr Malkin sent you MUDFA Schedule 1 Deliverables, while noting that, *"As you are aware a number of the enclosed deliverables remain as a work in progress and AMIS will continue to enhance these documents as part of the construction implementation process"*.

We understand that at a meeting between TIE and AMIS on 15 March 2007 the parties agreed that, as a consequence of late designs and associated data, a phased transition would take place rather than the distinct completion of the PCS phase and commencement of the Construction Services phase (which was noted to *"provide the opportunity to complete PCS in parallel with CS as design detail and definition are made available"* – see para 3 of the draft Commercial Proposals for Construction Services following Pre-Construction Services Delays, **CEC01630357**).

A presentation on "MUDFA Commercial Arrangements" made to the Tram Project Board on 19 April 2007 (**TIE00087959**) noted that completion of the Pre-Construction Phase was "not realistic" (slide 5) and a different approach to the MUDFA works were proposed.

The presentation also noted (slide 2) that because of the inherent risks in the utility diversion works (including that the records of the utility companies were uncertain and that the extent of the works required was not fully known, even after non-invasive and invasive surveys) there was a need to undertake the utilities diversion works "well in advance" of the Infraco work (to avoid potential abortive costs of Infraco standing time due to over running of the utilities diversion works).

(1) What were your responsibilities for the MUDFA contract and works around this time?

The MUDFA Project Manager reported to me until a point in 2007 when that responsibility was transferred to another member of the TIE Team. My responsibilities during this time included the successful mobilisation and start up of this contract through my project manager.

(2) What was your awareness and understanding of the matters noted above?

I was aware of the issues presented.

(3) What was the current contract position and why was it at risk of becoming, in Mr Malkin's view, untenable?

Mr Malkin was proposing a solution as I understand it to working both the PCS phase and construction phase in parallel to mitigate further delays and impact on the main Infracore works.

(4) Was completion of the PCS phase unrealistic and, if so, why?

At that point yes, because the design was not ready.

(5) Was the PCS phase completed in parallel with the Construction Services phase? If so, did that cause any problems or difficulties?

As I understand it ran in parallel. It meant that the PCS was not complete before the construction process started and designs were not complete.

(6) What was the different approach to the MUDFA works that was proposed? Was that different approach adopted?

From memory and reviewing the documents made available I recall that the change in approach involved: Breaking the route into work packages as design was ready and costing these rather than waiting for total route design being complete before commencing any construction.

(7) In the event, were the utility diversion works undertaken "well in advance" of the Infracore works (and, if not, why not)?

Not in all areas. There were a range of reasons which started with lack of utility information, SDS designs being late, Charrette process changing designs, performance of SDS, lack of utility engagement, contractor performance.

21. On 29 March 2007 Ray Dent copied you in on an e-mail he had sent Graeme Barclay (CEC01638353), noting a number of concerns in relation to SDS, including that various actions from previous meetings etc were simply not progressed, there appeared to be an SDS tactic of avoiding doing works now and accepting that it will have to be done later where they expect to be paid (e.g. "SDS were going to do hundreds of trial pits, then proposed tens of trial pits, then 3, and now zero"), that despite the clear understanding that TIE wanted SDS to de-prioritise section 3 designs (the Roseburn spur), SDS continued to work on it as a priority on the basis that TIE had not instructed them to do otherwise etc.

(1) What were your views on the concerns in Mr Dent's e-mail?

These were valid concerns.

- (2) What steps were taken to address these matters?

Continued pressure on SDS at various levels to deliver to their design programme. Graeme Barclay was brought in to help with these issues.

- (3) Were these steps successful (and, if not, why not)?

Not entirely, as the design progress continued to slip.

22. An e-mail dated 10 May 2007 from Tom Hickman, TSS Programme Manager, (CEC01626309) attached a copy of the Master Programme (CEC01626310) and noted slippage in various dates, including completion of design in section 01 (Newhaven Road to Haymarket) from 12 December 2007 to 31 January 2008, completion of design in section 02 (Haymarket to Roseburn Junction) from 1 November 2007 to 13 February 2008 and completion of design in section 7 (Gogar to Edinburgh Airport) from 12 November 2007 to 30 January 2008. The award of the Infraco contract remained at December 2007.

- (1) Given the difficulties and delays experienced with design to date, how confident were you that these new dates would be met?

As confident as I could be given this information was being supplied by a reputable international technical design company.

- (2) What was your understanding as to how the objectives of the procurement strategy could be met, including obtaining a fixed price for the Infraco contract, if the design was not completed until after Infraco contract close? (see e.g. the presentation on the Procurement Strategy to the meeting of the DPD sub-committee on 10 May 2007, TIE00059606).

This presentation outlined the process to be followed to mitigate risk associated with the design not being complete and also try and achieve cost certainty.

23. The Construction Director's Report for the meeting of the MUDFA sub-committee on 6 June 2007 (CEC01664524) noted (page 8, Executive Summary) "*Release of ... IFC ... still a major concern and impacting significantly on programme. Ratification of full impact being assessed*"; as a result, the MUDFA programme was under further review and the next MUDFA programme "*should take into full consideration any interdependencies with INFRACO to mitigate any cost implications to tie*" (para 2.2.2) (the minutes of the meeting are CEC01640813).

- (1) Did that accord with your general understanding at the time? Do you have any further comments?

Yes – I have no further comment.

24. An e-mail dated 20 June 2007 from Stewart McGarrity (CEC01650422) noted that Willie Gallagher wanted a letter to send to John Swinney "*to give comfort on*

our utilities approach and why we are confident it is deliverable to cost and programme”.

A letter dated 21 June 2007 was duly sent (**CEC01677601**).

- (1) Given the difficulties and delays that had been experienced with utilities, were you confident around this time that utilities were deliverable to cost and programme?

I cannot recall my confidence level at that particular point in time.

- (2) Do you consider that the letter to Mr Swinney accurately represented the position in relation to the utility works given the delays and difficulties that had been experienced to date?

The letter did not go into detail about the issues and how they were being managed and dealt with, but it is not inaccurate.

25. We understand that a delay may have occurred to the MUDFA works as a result of the Scottish Parliament election on 3 May 2007 (and the subsequent debate and vote on the tram project on 27 June 2007, which resulted in the Scottish Government deciding to continue with the project).

The record of a MUDFA meeting on 10 July 2007 (**TIE00059760**), for example, noted (item 4.1) a “3 month delay to site works in region of £1.5m”.

- (1) Why did the election delay the MUDFA works?

I do not know the source of your opening paragraph but I am not aware of the election being a sole and direct cause of delays.

- (2) How much delay was caused?

The above relates to a three month delay but I am not sure if the question asks how much was due to the election – see answer above.

- (3) To what extent was the three month delay to the site works noted in the above meeting note caused solely by the election and to what extent would a similar delay have occurred in any event due to other factors including, in particular, late utility design? See, for example, (i) the e-mail chain in February 2007 at (**CEC01800004**) regarding utility design delays, (ii) TIE’s Project Director’s report to the Utilities Sub-Committee on 4 April 2007 (**CEC01638569**) which stated (page 9, paras 4.2 and 4.2) that AMIS had produced a draft Rev 04 Programme, showing the main MUDFA works starting on 2 July 2007, which was “3 months later than shown on Rev 03 and is driven by design and Work Order requirements”, and (iii) letter dated 28 June 2007 by Mr Malkin, AMIS (**CEC01691617**) which noted that only one IFC drawing had been issued and that the underlying delay was a minimum of six months. Putting matters another way, what utilities diversion works could and would have been undertaken in April, May and June 2007 if the election to the Scottish Parliament had not taken place?

None of the information provided above alludes to the election being a

cause of delay – see answer above.

26. We understand that you were a member of the Infraco Tender Evaluation Panel (see e.g. the slides on Infraco Tender Evaluation dated 11 May 2007, **CEC01656654**, page 16).

Scott McFadzen, BSC, wrote a letter to Geoff Gilbert on 24 August 2007 (**TIE00087652**), following a meeting that day, in which he confirmed BSC's revised price of £217.2m for phase 1a, £45.9m for phase 1b (and £263.1m for phases 1a and 1b).

The Schedule of Clarifications enclosed with BSC's submission dated 7 August 2007 remained effective unless specifically amended (**CEC01604676** and **CEC01491869**).

By way of overview:

(1) What was your role and involvement in evaluating the Infraco tenders?

I was a member of the evaluation panel. Our role was to ensure that the process had been followed and to endorse the recommendations where we felt this was appropriate and propose these to the Tram Project Board. I may have been involved in looking at part of the bid relating to programme and organisation but cannot specifically recall.

(2) What was your understanding around August 2007 of the main qualifications in BSC's bid?

My understanding was that there were a large number of qualifications at that stage. Qualifications at that time included utility diversions being complete in line with Infraco programme, SDS issuing construction designs to allow the programme to be met, ground conditions risks excluded, trackwork design subject to adjustment and SDS novation subject to further discussions.

27. The minutes of the meeting of the DPD sub-committee on 30 August 2007 (**CEC01644467**) note you as confirmed (page 1, item 2) that *"design is almost complete to allow full costing and procurement of the works"*.

(1) Did that accurately reflect your views at the time?

Yes. The issue was whether the design was sufficiently advanced in order to allow the invitations to tender to be completed.

(2) Did your views come to change at any time (and, if so, when and why)?

My views were based on information being supplied by SDS at the time. As their programme and delivery slipped, my view altered.

28. The minutes of the meeting of the Tram Project Board on 5 September 2007 (**CEC01357124**) noted: *"AH [Andrew Holmes] questioned when the more difficult sections for utility diversions would be tackled – SB [Steven Bell] confirmed that initial work would commence in October 07 with physical works starting in April 08"* (para 3.18).

5 September 2007
should be
26 September 2007

(1) In which sections had utility works already taken place at that time?

I cannot recall.

(2) What were the more difficult sections (and why were they more difficult)?

I cannot recall the specifics but they would have included areas which have difficult traffic management or complex engineering diversions.

(3) What was meant by the "initial works" and the "physical works"?

As I recall the initial works included some test sites and the works under the PCS The physical works were the main diversion.

(4) Did the fact that the "physical works" in the more difficult sections were not due to commence until April 2008 cause you any concerns?

Yes.

(5) Why had the more difficult sections not been tackled first?

I do not recall exactly but reasons could have included for example the lack of a completed design, traffic management arrangements being complex and requiring agreement and co-ordination to avoid certain embargoes.

29. By e-mail dated 12 September 2007 (CEC01630955), Rebecca Andrew, CEC, noted that CEC wished to procure an external adviser because "CEC officials do not have appropriate experience to perform their monitoring/assurance role, particularly given the extent of the risks involved".

In the event, we understand that the Office of Government Commerce (OGC) team undertook a review of risk in October 2007 (CEC01496784) as well as their Gateway 3 review (CEC01562064).

(1) Ms Andrew's e-mail notes that you had spoken with her to outline your concerns. What were your concerns in relation to CEC instructing an external adviser to consider the risks to which CEC were exposed?

I do not recall this phone call. However, I assume my concerns related to the implication this process might have on timescales to the project. There was no issue with having external advisers per se.

(2) What were your views on whether CEC officials had appropriate experience to perform their monitoring/assurance role?

I had no view on this.

(3) Why was the solution reached that the OGC team would undertake a separate review on risk rather than external advisers appointed by CEC? What was your part, if any, in suggesting or arriving at that solution?

Again, I cannot recall the detail around this but I assume that this team was

engaged as they had previously carried out OGC reviews for CEC & TS on the project during the earlier stages of the project and so already had an understanding of the project, its risks and procurement strategy. I may have suggested this as a solution as I understand that they had previously been engaged by CEC to do independent reviews of the project.

30. An e-mail dated 13 September 2007 from David Crawley (**TIE00042330**) noted that Tom Hickman's team did not have all of the data, and was monitoring against a different version of the programme to Mr Crawley, which would result in two reports at variance based on apparently the same data.

(1) What was the problem? How had it arisen? Was it resolved (and, if so, how and when)?

From the e-mail I have access to it appears that Tom Hickman did not have all the data to process which resulted in the variance. I cannot recall this issue and if and how this was resolved.

31. The minutes of a Critical Issues meeting on 19 October 2007 (**PBH00013693**) noted (page 4, item 3), under Risk Analysis and Control of Capex, that only technical approvals for section 1b would be available prior to financial close and that Duncan Fraser, CEC, was worried about changes which would escalate into claims from Infracore for areas not approved prior to financial close. You are noted as having suggested investigating a fast track technical approval process.

(1) What was the problem? How had it arisen?

The problem would have arisen from the slow design delivery which then impacted on technical approvals. The approval process itself was also slow.

(2) Was a fast track technical approval process implemented? If so, was that successful in avoiding Infracore claims for changes after financial close?

I cannot recall if this was implemented.

32. On 25 October 2007 the Council's approval was sought for the Final Business Case, version 1, in respect of phase 1a (Airport to Leith Waterfront). A joint report was provided by Andrew Holmes and Donald McGougan (**CEC02083538**).

The report to Council noted that:

- The SDS had prepared preliminary designs and were currently finalising the detailed designs. (para 3.22)
- *"It is anticipated that the SDS and Tramco contracts will be novated to the provider of the infrastructure works. This means that significant elements of the responsibility for the design and vehicle provision and the risks associated are transferred to the private sector"* (para 3.27);
- The estimated capital cost of phase 1a was £498m; *"There is detailed information behind [the] estimates, which take due allowance for risk contingency and further scope for savings, but a fuller breakdown cannot be provided at this stage for reasons of commercial confidentiality"* (para 4.2).
- *"The infrastructure costs are also based on the fixed prices and rates received from the recommended infrastructure bidder. However, there is scope for this*

cost to move slightly, prior to contract close as further design work is required to define more fully the scope of the works to allow a firm price to be negotiated. There is a risk allowance to take account of these variations. The price also assumes that savings can be made on the proposals through certain Value Engineering innovations proposed by ... TIE and the infrastructure bidder" (para 4.3).

- The estimates included a risk allowance of £49m, which had been calculated based on the perceived cost and likelihood of over 400 risks in the project risk register. A statistical analysis known as Quantified Risk Assessment was carried out at a 90% probability level and had concluded that there was a 90% chance that final costs would be within that risk allowance, which *"demonstrates a higher than normal confidence factor for a project of this scale and complexity"* (para 4.10).
- It was noted that *"The risk contingency is designed to cover additional unforeseen costs, but it is recognised that there is an element of residual risk of costs exceeding current estimates. It should also be notified that the risk contingency does not cover major changes to scope. The scope of such changes will be reviewed after completion of the Tram works and commencement of Tram operations"* (para 4.32).
- "Fixed price" and contract details would be reported to the Council in December 2007 before contract close in January 2008. (para 5.3).

The Final Business Case, version 1 (CEC01649235) noted:

- *"The level of risk allowance so calculated and included in the updated estimate represents 12% of the underlying base cost estimates. This was considered to be a prudent allowance to allow for cost uncertainty at that stage of the project. It reflected the evolution of design and the increasing level of certainty and confidence in the costs of Phase 1 as procurement had progressed through 2006. TIE continued to comply with the HM Treasury recommendations for the estimation of potential OB and had determined, in consultation with TS, that no allowances for OB were required in addition to the 12% risk allowance above"* (paragraphs 10.13 and 10.14) (these provisions were essentially the same as the provisions on risk and optimism bias included in the draft FBC dated November 2006, CEC01821403, paras 9.11 and 9.12).
- *"By the time of the DFBC, OB was effectively eradicated, as per the findings explained in the Mott MacDonald Review of Large Public Procurement in the UK. This was in view of greater scheme certainty and the mitigation of factors built into the procurement process, as well as project specific risks and environmental and external risks. Instead of using OB, TS and CEC adopted a very high confidence figure of 90% (P90) in the estimate of risk allowances to cover for specified risk, unspecified risk and OB"* (para 11.43).

(1) Did you have any input into the report to Council or FBC, v1?

I am familiar with the document and may have been involved in reviewing certain sections but do not recall writing any parts of it.

(2) Do you consider that the report to Council fully and accurately reported on the delays in relation to design, approvals and consents and utility works and the risks arising from these delays?

The document does identify the issues associated with the project, the risks

to the programme, and the responsibilities and impacts. I am not able to comment on how or whether those risks, so identified, could or should have been quantified in this document. The FBC was written by the Finance Director and his team. The Risk Manager would have had significant input into the sections on risk.

- (3) What was your understanding of how the Infraco contractor could provide a fixed price, and how design risk could be transferred to the private sector, given the delay in design, approvals and consents (and given the design and TRO milestones noted at page 191 of the FBC whereby, for example, detailed design for phase 1a was not expected to be completed until September 2008)?

I understood the Infraco bidder would carry out due diligence in order to confirm pricing.

- (4) What were your views on the paragraphs of the FBC noted above? Did you agree that from late 2006 onwards optimism bias had been effectively eradicated and that it was appropriate to make no further allowance for optimism bias in addition to the risk allowance?

The removal of Optimism bias had been done in agreement with TS and an alternative of using P90 figures instead in the risk contingency figures was employed instead. I did not disagree with this approach at the time.

33. AMIS's Monthly Progress Report for November 2007 (**CEC01523817**) contained an Appendix 2, Live Work Order Progress, which showed that only 8 work orders had been issued and noted that approximately 197 trial holes were planned or were underway.

- (1) Is it the case that the main MUDFA works being undertaken around that time (in particular, for the on-road sections) were trial holes rather than utilities diversions? (see also e.g. the minutes of the meeting of the DPD sub-committee on 30 August 2007, **CEC01644467**, which noted "*Main utility works not as advanced due to design release. However, trial holes carried out in lieu.*")

As I recall, yes.

- (2) Why had these trial holes not been undertaken earlier? Should they have been? (see e.g. (i) the e-mail dated 28 March 2007 from Ray Dent to Graeme Barclay noted above, **CEC01638353**, and (ii) an e-mail dated 3 December 2007 from Sandra Cassels, DLA, **CEC01540976**, which noted that there was a disagreement between TIE and SDS in relation to the surveys SDS required to carry out under the SDS contract, it being noted that "*Tie are of the opinion that SDS were obliged to carry out certain types of survey far greater in scope than SDS actually carried out, whereas SDS are of the opinion that they have fulfilled their obligations under the SDS Agreement.*")

It was my understanding that SDS should have carried these out.

34. In an e-mail dated 4 December 2007 (**CEC01480044**) you listed a number of SDS design issues that BBS had identified as constraining the construction programme (i.e. issue of IFCs is holding the construction work back).

(1) In the event, did SDS design issues at these locations impact upon the construction programme?

I cannot say if specifically it did at these sites.

(2) Incidentally, it would be helpful if you could explain your comment that you thought that the IFC dates had float in them? In the event, did they have float? Did that cause any problems?

I cannot recall why I thought the IFC dates had float, nor can I recall now if in fact they did.

35. The minutes of the meeting of the Tram Project Board on 7 December 2007 (CEC01526422) noted:

- Design Programme and Bidder due diligence, "SB [Steven Bell] gave an update on the progress of these matters, highlighting the following aspects: [i] Slow design delivery requires prioritisation within key streams to help BBS programme, [ii] Price certainty is increasing but slow and some areas of provisional pricing may remain at end – December 07, and [iii] Feedback from initial information on technical approvals is encouraging" (para 3.2);
- "AH [Andrew Holmes] queried the impact of the late design delivery, particularly its knock-on effects on the MUDFA programme, any change in risk profile accepted by the Infracore and the price impact ... SB explained that although the programme was tight, the current MUDFA Rev.06 programme accommodated the design delivery programme without price impact at the moment" (paras 3.3 and 3.4).
- Mr Bell also explained that the areas of provisional pricing were roads, tramstops and certain structures. Out of these, the roads pricing were the most uncertain as others had been widely explored. The technical reviews so far showed little likelihood of major networks with significant price impacts being required (para 3.5).
- "WG [Willie Gallagher] advised that from BBS's perspective the price critical areas were Picardy Place and the Forth Ports area plus potential implications arising from the obligations to obtain consents and complying with 3rd Party Agreements. He expected that greater certainty around these matters would be available following the latest return of price information from BBS, expected early w/c 17th Dec" (para 3.6).

The progress report presented to the meeting of the Tram Project Board on 7 December 2007 (CEC01387400) noted: "To 23rd November, of the 344 design deliverables, 236 have been delivered, representing 63% of the tram system design. 66% of Phase 1A detailed design is now complete and it is expected that about 75% will be complete by the date of placement of the construction contract in Jan 2008 ... SDS design process will be discussed with Tom O'Neill, the PB President, on the 5th December" (para 1.2.3).

(1) What was your understanding of, and views on, these matters?

I was not present at the meeting but would concur with the points mentioned as being accurate at that time.

- (2) Did there come a time when the MUDFA programme was no longer able to accommodate the late design delivery (and, if so, when, and what was done to address that)?

Yes – but I cannot recall the exact date/time when that occurred. From memory a process known as RATS was put in place to try and deal with this, along with breaking the diversions into small work packages.

- (3) Did there come a time when the MUDFA programme impacted upon the Infracore programme (and, if so, when, and what was done to address that)?

Yes. Again I cannot recall the exact timing of this but this was reported by the Programme Manager. Work was done to identify locations where Infracore could commence work.

36. An e-mail dated 14 December 2007 from Duncan Fraser (**CEC01483284**) noted, *"There are concerns within CEC that the design deliverables may have an impact on Mudfa and this may also impact on Infracore programmes. Consequently we have asked for QRA process to take account of these possible delays to the programme and increased capex costs – can you confirm that this review is in place"*.

- (1) Did TIE review the QRA in relation to these risks?

The risk process was ongoing throughout the project. Damian Sharp's e-mails of 17th December in this same chain reflect that the QRA contains allowances for this.

- (2) To what extent, if at all, was there an allowance in the QRA for design and/or MUDFA delays causing delay to the Infracore works and programme?

As per Damian Sharp's e-mail mentioned above this indicates there was £7.5m for a range of approval delays, including MUDFA delay due to incomplete design.

37. The Legal Affairs Group met on Monday 17 December 2007 (**CEC01501051**). At the meeting you presented a paper proposing the deliverables that would require to be completed to allow TIE to be given authority to enter into the contracts (**CEC01501053**).

- (1) Do you have any recollection of what was discussed at that meeting?

Apart from what is in the minutes – no I cannot recall anything else.

- (2) What was your understanding at that time of the extent to which the Infracore price was fixed, the matters that remained subject to discussion and whether agreement had been reached on which party or parties bore the risks and liabilities arising from incomplete and outstanding design, approvals and consents?

My understanding at the time accorded with what is recorded in the minutes. Having not been involved in the detailed negotiations I assumed this was accurate at the time. However, the minutes also state that further

negotiations were to take place on this and so my understanding was that this could change.

38. The minutes of the meeting of the Tram Project Board on 19 December 2007 [CEC01363703] noted:

- Infraco Price Update, *"The Board noted the confidence by the project team in the Infraco price based on the stated conditions. The Board also accepted that, to protect the Infraco costs, it is essential to avoid client side design and/or programme changes and to ensure final design approvals are not delayed"* (p.6).
- Project Cost Estimate update, *"AH [Andrew Holmes] questioned how the risk of programme delays, specifically due to design delays, had been allowed for in the cost estimate. WG explained that a number of factors provided comfort in this matter: Normal design risk is passed to BBS through the SDS novation; Sensitivity testing had been undertaken for a 6-month programme delay which is covered by risk allowances; and The risk of potential programme delays due to systems integration was passed to BBS through the Tramco novation. AH requested further details on the design risk being passed to BBS – SB to provide"* (p.6).
- Programme, *"AH expressed his concern about potential programme impacts arising from design delays. SB to provide greater detail on how the risk is passed to BBS"* (p.7).

(1) What was your understanding of, and views on, these matters?

These were risks which the project had identified and made risk allowances for.

(2) Given the delays that had been experienced with design, approvals and consents, what were your views on the prospects of avoiding "client side design and/or programme changes" and of ensuring that final design approvals were not delayed?

This was something that was a concern. One of the reasons for putting in place a CEC team within the project was to try to avoid changes. There was still a risk that this might happen which is why the risk and impact of client changes was being stressed.

39. We understand that in the middle of December 2007 discussions took place at Wiesbaden, Germany, between representatives of BBS and TIE in relation to the pricing provisions of the Infraco contract and that, on 20 December 2007, an agreement, or heads of terms, were reached (the Wiesbaden Agreement) (CEC02085660).

(1) What was your understanding of the purpose and outcome of that meeting?

I understand it was part of the negotiation of the Infraco contract and to try and resolve some of the outstanding issues.

(2) By whom were you advised of these matters?

I cannot recall but as Willie Gallagher and Mathew Crosse were the people

from TIE at the meeting I assume it would have been them.

40. On 20 December a report was provided to Council (CEC02083448) along with version 2 of the Final Business Case (CEC01395434).

The report to Council noted:

- *"The cost estimates for the project reflect provision for evolution as the detailed design will be completed in the coming months. The design is completed under the Infraco contract from the point of award of that contract through novation of the System Design Services contract with Parsons Brinkerhoff to Infraco"* (para 3.2).
- *" ... Some cost allowance has been made for the risk associated with the detailed design work not being completed, at the time of financial close ..."* (para 8.1).
- The estimate of £498m for phase 1a inclusive of a risk allowance as reported in October 2007 remained valid. The current price estimate was based on a compressed construction programme (para 8.2).
- *"The fundamental approach to the Tram contracts has been to transfer risk to the private sector. This has largely been achieved"* (para 8.10).
- *"Risks retained by the public sector and which therefore bear upon the Council are explained in the Final Business Case section 11. These risks include:*
 - *Agreements with third parties including delays to utility diversions.*
 - *Finalisation of technical and prior approvals.*
 - *The market cannot provide Professional Indemnity Insurance to TIE vis-à-vis a claim by the Council against TIE, because TIE is wholly owned by the Council"* (para 8.13).
- *"There are additional risks such as third party agreements and consents where discussions and negotiations are continuing to reach an acceptable position in respect of allocation of risks"* (para 8.15).
- *"The risk contingency does not cover major changes to scope. It should be noted that the current construction programme is compressed to reduce the length of disruption and provide best value. Changes to the programme could involve significant costs, not currently allowed for in the risk contingency"* (para 8.16).
- It was anticipated that the Notification of Infraco award would be issued on 11 January 2008, the Tramco and Infraco contracts would be awarded on 28 January 2008 and that construction on phase 1a would commence in February 2008 (para 8.19).
- The Conclusions included that, *"The preferred bidder negotiations, in terms of price, scope, design and risk apportionment, give further reassurance that Phase 1a can be completed within the available funding and are consistent with the Final Business Case"* (para 9.2) and that *"The total forecast project cost is consistent with the final business case. TIE is confident that risk contingencies and the final approved design can be accommodated within the funding available"* (para 9.3).
- Authority was sought from members for the award of the Tramco and Infraco contracts by TIE subject to price and terms being consistent with the FBC and subject to the Chief Executive being satisfied that all remaining due diligence was resolved to his satisfaction (paras 1.2 and 10.2).

(1) Did you have any input into the report to Council or the FBC?

Council Report – not that I remember. FBC - this was led by our Finance Director, I think.

- (2) What was your understanding of, and views on, the provisions of the report to Council noted above?

To the best of my knowledge, these were an accurate reflection of the status of the negotiations at that time.

- (3) What was your understanding at that time of the extent to which the Infraco contract was for a fixed price (and the extent to which, and in what circumstances, the price was liable to change)?

As far as I can recall, I understood that there was a mechanism for changes but cannot recall at that point what percentage of the costs were fixed.

- (4) It was noted that the risk contingency did not cover "major changes to scope". What was your understanding of "major changes to scope"? Can you give examples?

Something which was outside the normal design development process. An example would be perhaps a new alignment and road layout being requested at Picardy Place.

- (5) Do you consider that the report to Council on 20 December 2007 adequately set out the delays in relation to design, approvals and consents and utility works?

It mentions them as risks but this paper does not spell out the delays already incurred.

- (6) Do you consider that the report adequately set out the risks arising from these delays, including the risks arising from these works overlapping with the infrastructure works?

The report identifies the key risks in relation to design and approvals. It does not explicitly mention the potential for impact on the main construction programme.

EVENTS IN 2008 (January to May)

41. There was a joint meeting of the Tram Project Board/TIE Board/TEL Board on 23 January 2008 (CEC01246826 at page 5).

The minutes noted (page 5, para 3.1) that Willie Gallagher provided an overview of the progress towards Financial Close, *"In summary, the Boards were assured that there were no indications of material price, scope or programme changes at this time"*.

Steven Bell provided an outline of the progress on the Infraco suite of documents (page 6), including, *"SDS novation: significant progress had been made. However, a number of concerns remained outstanding in relation to the Prior and Technical*

design Approvals. SB explained that establishing a baseline and programme for Prior and Technical Approvals, which has buy-in from SDS, BBS, TIE and CEC, was essential" (para 5.4).

Mr Bell gave an update on the current status of the MUDFA works which were noted to be "on programme and budget" (page 5, para 4.1).

It was noted (page 7, para 5.16) that the Boards expressed their satisfaction that the proposed programme to financial close allowed for a final review of the whole document suite and the resolution of outstanding issues, "which is likely to result in a better risk profile".

(1) What was your understanding of, and views on, these matters?

In respect of Para 3.1, the remainder of the minutes outline the potential for changes and both programme and cost increase and so para 3.1 should not be read in isolation.

Para 5.4 – this had been an ongoing concern and was integral to the overall design delivery and therefore main Infraco programme.

Para 4.1 – as most of the work was at the PCS stage at this point I would agree that the programme was on target.

Para 5.16 – this was part of the process to manage the close process and checking of the contracts and so was part of the diligence going on through this period.

(2) Did there come a time prior to financial close when there were indications of material price, scope or programme changes (and, if so, when)?

If one reads the remainder of the minutes, there were some issues being raised about the level of design completion and impact on programme – Clause 5.5. This was apparent during the bidding process and was reported in the Infraco due diligence report and slippage in design was being reported internally by TIE. Clause 5.14 also outlines the potential for "additional works". These two clauses provide a clear indication.

(3) Did there come a time prior to financial close when the MUDFA works were no longer "on programme and budget"?

I cannot recall the exact timing of that becoming apparent but do think that this was after financial close.

(4) How did you envisage at that time that a better risk profile would be achieved?

As I recall through detailed work to map the SDS delivery programme to the construction programme.

42. By e-mail dated 1 February 2008 (CEC01386002) you sent Alan Coyle, CEC, a number of documents including a Programme Summary and Risk Report (CEC01386003), a Risk Register (CEC01386004) and a draft Risk Management Report (CEC01386005).

The Programme Summary and Risk Report noted that the construction programme was primarily constrained by the delivery of design, the delivery of the MUDFA works and consideration of potential resource constraints on particular skills.

The report also noted, under Programme Risks (page 5), that if Design Delivery failed to meet the required programme then Infraco would be unable to achieve contract close which could impact the programme by between three to six months. There was an allowance of £3.8 million within the project risk allowance for this risk.

It was also noted, under Utility diversions failed to meet the required programme, that there was a potential delay to specific areas of the Infraco works but that this was considered unlikely due to programme logic being based on MUDFA rev 06 construction programme. Delays within any expected areas were anticipated to be less than four weeks. There was an allowance of £1.35 million with the project risk allowance for this risk.

By e-mail dated 5 February 2008 Alan Coyle of CEC advised you that he was "disappointed" with the quality of information provided by TIE in respect of risk registers and that it was "unacceptable" that there was no quantification of "black flag" risks (CEC01508100) and (CEC01508101).

(1) Who was responsible for assessing and quantifying the risks noted above?

The project had a risk manager who managed this process. However, many of the team fed into this process.

(2) What were your views at the time as to whether the risk of design and utility delays causing delay and increased cost to the Infraco works and programme had been properly identified and quantified?

These were being flagged up as risks and discussed in the Tram Project Board. This was not an easy issue to quantify due to the complexity of all the parts but I believe at the time we felt these had been quantified adequately.

(3) Did your views on these matters change at any time (and, if so, when and why)?

As the project moved forward these matters were changing but these as I recall were also being reported.

(4) What were your views on Alan Coyle's comments on the risk register?

He raised his concerns – at the time there was a great deal of pressure across all the parties which I think is expressed in my e-mail to Mark Hamill.

43. By e-mail dated 7 February 2008, Consents Risk (CEC01508412), Colin Mackenzie advised you that he was aware of a "serious debate" ongoing about consents and risk and that a decision may require to be made between balancing the cost of delaying the award of the contract against the cost of the Council bearing the risk of delayed prior approvals.

In your reply dated 8 February 2008 (in the same email chain) you stated "1. There should be no question about the Infraco contract award being delayed until all prior and technical approvals are in place – processes are in place to ensure that we manage the process to deliver these. 2. There is no easy way to quantify the impacts of CEC delaying prior or technical approvals. There are 62 prior approvals required and 89 technical approvals required and each one will have a different impact on programme/cost increase. 3. We have made a risk provision for this".

- (1) Again, who was responsible for assessing and quantifying the risks arising from prior and technical approvals?

The project had a risk manager who managed this process. However, lots of the team fed into this process. Individual people had their own risks to report on but the Risk Manager was responsible for the overall co-ordination. The Design PM would be responsible for assessing and quantifying the risks here.

- (2) What were your views at the time as to whether the risk of delays in obtaining prior and technical approvals causing delay and increased cost to the Infraco works and programme had been properly identified and quantified?

As I explained in my e-mail to Colin Mackenzie, this was a complex issue to quantify but I believed at the time it had been done properly.

- (3) Did your views on these matters change at any time (and, if so, when and why)?

As the project moved forward these matters were changing but these as I recall were also being reported.

- (4) What were the "processes in place" to manage the process of obtaining prior and technical approvals (see e.g. power point presentation dated 4 February 2008, **CEC01398595**)? Were these processes effective?

Agreeing the design programme and then managing this at a very detailed level. In hindsight, the processes were probably not as effective as we would have liked, because if they had been then we would not have experienced as much delay.

44. Parties entered into the Rutland Square Agreement on 7 February 2008 (**CEC01284179**).

The agreement noted a construction price of £222,062,426, subject to certain exclusions, provisional sums, assumptions and conditions.

- (1) What was your understanding of the need for and purpose of that agreement?

I cannot recall the driver for it but I imagine it was to try and close out some of the remaining issues between the parties.

- (2) The agreement contained (page 12) a draft of Schedule 4, Pricing Provisions, of the Infraco contract. Who within TIE was primarily responsible for negotiating

and agreeing Schedule 4? Did you have any involvement in that?

As I recall, Geoff Gilbert – Commercial Director was primarily responsible for negotiating & agreeing Schedule 4. I did not have any involvement.

45. The Construction Director's Report for the meeting of the Utilities sub-committee on 13 February 2008 (CEC01398499) noted (page 10) under Action Plan, "Review of output performance within the current 'live' sections over the prevailing periods has noted a reduction in target achievement. This is reflective of the congestion of services being uncovered within Leith Walk and latterly the city centre and the increasing output requirement to meet programme targets". The Key Issues/Blockers (page 15, para 4.0) included "Design delays in issuance of IFC drawings. Trend beginning to show again" (the minutes of the meeting are CEC01453676).

TIE's MUDFA Contract Review Report dated 1 February 2008 (CEC01448120), Appendix 3 - Performance Measures, contains a graph "MUDFA – Issue of IFC Design Packages for Construction" (page 16), which appears to show that of 140 IFC Design Packages that ought to have been issued by 30 November 2007, only approximately 60 had been issued.

(1) What utility works were being carried out by this time, and in which sections?

I cannot recall that level of detail but looking at the report above it would seem to reflect the work ongoing at that time.

(2) What were the main reasons for the continuing delays in utilities design around this time?

Complexity of the design, the congestion of utilities found when the roads were opened.

46. A joint meeting of the Tram Project Board and the TEL Board took place on 13 February 2008 (CEC01246825).

In relation to design, the minutes noted (page 5, para 4.3), "SB confirmed that the timetable for delivery will be part of the contract" and that "the final design packages are now expected in late 2008 and that the critical designs will be identified and dealt with in the programme".

It was noted, under Price, Budget and Risk, "SMcG [Stewart McGarrity] ... explained that the to-go costs in the budget represented the full programme and scope of works, with a risk allowance of approx £30m relating to £90m of non-firm future costs. However, the budget does not contain allowances for stakeholder changes to programme or scope" (para 6.1) and "the Infraco price was a negotiated number, which included a premium for achieving price certainty on previously provisional items, as well as some contingency for design issues" (para 6.2).

Mr Bell was noted to be "content with the current level of [risk] allowances and would not recommend further adjustments" (para 6.4).

(1) What was your awareness and understanding of these matters?

As I recall, my awareness of these matters was in the terms reported by Steven Bell and Stuart McGarrity.

- (2) Did you have any concerns arising from the fact that the final design packages were now expected in late 2008?

Yes, we were trying to mitigate by focusing on the critical design packages.

- (3) What was your understanding of how (and by whom) the risk allowance had been compiled and quantified and the main risks it covered? To what extent, for example, did it cover the risk of increased costs arising from (i) incomplete design and design development and (ii) the MUDFA works being delayed and causing delays to the Infracore programme and works?

This would have been done by the Risk Manager co-ordinating the assessment and the FD taking a view, along with the team on the allowances. As I recall it did take account of the incomplete design and MUDFA at that time.

47. On 18 February 2008 BBS produced a Design Due Diligence Summary Report, based on design information received by BBS by 14 December 2007 (CEC01449100). That document raised various concerns about design, including that *"more than 40% of the detailed design information"* had not been issued to BBS.

- (1) Were you aware of that report at the time?

I do not think I was aware of it at the time it was issued.

- (2) To what extent was the report discussed within TIE? Was the report shared with CEC?

I cannot recall if this was discussed within TIE at the time or shared with CEC.

- (3) What were your views on the matters in the Executive Summary of the report? Did it cause you any concerns?

As I cannot recall seeing the document at the time I cannot answer this.

- (4) How was the report reconciled with the deliverables for contract award, which were to include a statement from the preferred bidder that they accepted the emerging quality of design (CEC01501053, item 4, Due Diligence)?

I do not know.

48. By e-mail dated 19 February 2008 Colin Mackenzie advised Gill Lindsay that *"The position regarding novation of the SDS contract to BBS was given next to no clarification last night, with a contradictory explanation from TIE"* and recorded his concerns about TIE's lack of transparency and co-operation with Council officers (CEC01400919).

- (1) Were you aware, at any stage, that CEC officers had concerns about TIE's lack of transparency and co-operation with Council officers?

I was not aware of the e-mail mentioned here. However, I was aware that there were complaints from certain people within CEC that they did not always have as much information as they liked. There were some within CEC who were unhappy that TIE had been set up as an arms length company and that they were not part of the project. A number of CEC personnel were brought on board and incorporated into the project team.

- (2) To what extent, if at all, were these concerns discussed within TIE? What were your views on these matters?

If the question is around the e-mail from Colin Smith, as I cannot recall seeing this I cannot answer this. However, generally, these were discussed with TIE which is why CEC officers were seconded into the team to work alongside TIE.

49. By e-mail dated 3 March 2008 (CEC01506052) TIE provided CEC with a breakdown of the Quantified Risk Allowance (CEC01506053).

- (1) What was your understanding of the allowance, if any, made in the QRA in respect of the risks arising from incomplete and outstanding design, approvals and consents?

It is difficult to remember this level of detail but from the documents above, delayed design consents featured in three of the top eighteen risks.

50. By e-mail dated 11 March 2008 (CEC01544518) Duncan Fraser, CEC, advised TIE that CEC required a statement confirming the elements of the SDS designs that are being re-designed by BBS, if any, the working assumption to date having been that all of the SDS designs were to be adopted by BBS.

In a reply, Graeme Bissett stated *"the information you want is embedded in the Infracore proposal ... As I think we discussed today, the liability would sit with BBS/SDS in relation to any redesign"*.

- (1) What were your views on which party bore the risks arising from any redesign?

As Graeme stated, if BBS redesigned, at their instigation, then they bore the risk – is my understanding.

51. TIE's Construction Director's Report for the meeting of TIE's Utilities sub-committee on 12 March 2008 (CEC01453676) noted, under Overall Performance to Date, that a total of 7805 metres (against a planned 9754 metres had been undertaken), including 44 chambers (out of 79 planned chambers).

In relation to Section 1B, progress in the period was less than anticipated.

The Action Plan noted that *"Overall progress in period had identified a reduction in outputs, due to increasing workload and number of live sections"* and that *"Key areas to be targeted are North end of Leith Walk (output 33%) and the Mound/St Andrew Square (output 58%) which are substantially lower than the section overall"*

average output of 80%".

Under Programme (para 2.2) it was noted "*Latest production figures indicate outputs have dropped significantly (approx.. 50% output planned achieved), especially in the last period. Indications are we are 3-4 weeks behind programme*". Similar Key Issues/Blockers as before were noted (with the addition of a 1500 mm sewer under the proposed A8 underpass) (the minutes are **CEC01456730**).

(1) Did that accord with your general understanding at that time? Do you have any further comments?

It did accord – I have no other comments.

52. A progress report for a proposed meeting of the Tram Project Board on 12 March 2008 (**CEC01246825**) noted: "*SDS submissions to CEC for their approvals are now timed such that, in some cases, construction is programmed to commence before approval has been completed*" (p12) and "*Design. The delivery of design to meet the construction schedules for various structures is causing concern and detailed reviews and discussions are underway with SDS, CEC and BBS to provide solutions*" (p19).

(1) What were your views on these matters? Did they cause you any concerns? How were any such concerns addressed?

They did cause concern as there was potential to impact on the programme. The team was trying to resolve by daily meetings to try and ensure delivery of the design packages. The impact on programme at that point was about to be resolved by the agreement to have a first notified departure for the contract which identified programme movement from V26 to V31 of the construction programme.

53. A joint meeting of the Tram Project Board and TIE Board took place on 13 March 2008 (**CEC00114831**).

The minutes noted (page 5, para 3.2) Willie Gallagher as having explained that "*the position with BBS was settled in terms of price, programme and scope for Employer's Requirements, however two key items were awaiting resolution: a) Network Rail issue on the cap on economic losses; and b) SDS novation*".

In relation to Price, Budget and Risk Position (page 6, para 10), it was noted that there was an increase in the Infraco price of approximately £10m, from £498m to £508m.

Willie Gallagher explained that the buy-out of the risk of SDS non-performance was considered good value for money.

Mr McGarrity summarised the key items in the specified risk allowance going forward, which included "*significant sums for programme delays, unforeseen delivery issues and consent issues and MUDFA related issues*" (para 10.5).

It was noted that "*95% of the combined Infraco/Tramco price is firm and the remainder had been reviewed by both TIE and BBS for adequacy*" (para 10.6).

The Boards expressed the desire to stress the achievements of the proposed deal in all communications, including the fact of fixed pricing.

The Boards approved the notification of contract award and to move to financial close around 24 March, subject to resolution of the SDS Novation Agreement and Network Rail APA.

In relation to MUDFA it was noted, *"the period experienced a slippage in programme due to AMIS' difficulties to ensure appropriate supervisor mobilisation. WG confirmed that tie had taken steps to work with AMIS to address this issue"* (para 15.2).

- (1) What was your understanding of these matters, including the extent to which agreement had been reached on price, programme and scope and the matters that were still subject to negotiation?

On agreement to price, it is explained in Para 10.3 that the provisional sum items are not deemed to be part of the "fixed" price element. The 95% refers to the areas still under discussion and my understanding was that the figures being presented included allowances for these.

54. An e-mail dated 18 March 2008 from Jim McEwan (**CEC01430245**) noted that Willie Gallagher had asked him to assume responsibility for managing the process towards contract close.

- (1) Who had previously managed that process?

Around this time Matthew Crosse had left the organisation. I cannot recall when Geoff Gilbert left the organisation. They, along with Willie Gallagher had been in the lead with negotiations.

- (2) Did your role change in any way after Mr McEwan became responsible for managing the process towards contract close?

It is difficult to recall, but I do not think so.

55. In an e-mail dated 1 April 2008 to Graeme Barclay (**TIE00694681**) you noted that at a recent programme meeting SDS had advised that there were a number of locations where they awaited survey information from AMIS to allow completion of design and approvals.

The Construction Director's Report for the meeting of the Utilities sub-committee on 9 April 2008 (**CEC01456414**) noted, under Overall Performance to Date, that a total of 10081 metres (against a planned 12112 metres had been undertaken), including 54 chambers (out of 104 planned chambers).

It was noted (page 2) that *"there has been no recovery of the previously reported slippage"*.

Cumulatively, the existing effect was a delay of circa 6 weeks on the affected sections.

The root causes were in four main categories: greater congestion of existing

utilities than anticipated (principally affecting Scottish Water diversions); increased temporary diversion provision; slower than estimated chamber construction for BT chambers; and incomplete supply of supervisory and operative resource to meet the full demands of the Revision 06 programme and the enabling works (AMIS addressing).

"The summary impact on the REV 06 Programme critical path suggests that 2 weeks delay is likely allowing for realistic implementation of the recovery plans to the MUDFA programme".

The Key Issues/Blockers were set out in para 7.0 (pp12-13) (the minutes of the meeting are **CEC01301007**).

See also TIE's MUDFA Contract Review Report dated 24 April 2008 (**CEC01293830**) which (under Period Progress, page 2) stated that peak demand was within the months of May through July, that output demand indicated a required increase of 40% of the present average output of 64% and that *"This being achieved, completion date (excluding the Mound) will be maintained as mid December 2008"*.

The Contract Review Report also noted (para 1.1 Commercial, page 18) that a joint review had confirmed an anticipated increase measured quantity of 10,550m of utility diversions from the originally assessed measured works quantity.

(1) Did that accord with your general understanding of matters around that time?

Yes.

(2) What were the main elements of the recovery plan for the utilities works?

Extended working hours.

(3) Are you aware how, and by whom, a two weeks delay in the MUDFA programme had been arrived at?

I do not recall.

(4) Was the estimate of a two weeks delay dependent on the recovery plan for the MUDFA works being successful?

The report suggests it is dependent on this, yes.

(5) How confident were you, and others in TIE, around this time that the utilities diversion works would be completed in accordance with the revised programme?

There was neither a high nor a low level of confidence on this issue. We were monitoring the programme closely because whilst we considered it achievable, it was tight.

(6) With the benefit of hindsight, do you consider that it was reasonable to hold the view around this time that the utility diversion works would be completed in accordance with the revised programme (i.e. by the end of 2008) given (i) the

delays and difficulties that had been experienced to date with the utility design and diversion works, (ii) the fact there had been no recovery of the previously reported slippage, (iii) the recognition that an increase in the anticipated measured quantities of utilities diversions would be required, (iv) the fact that utility diversions in the more difficult sections had only just begun and/or were just about to begin, and (v) the success of the proposed recovery plan was unknown?

See answer above.

56. A Joint Meeting of the TPB and TEL Board took place on 9 April 2008 (CEC00079902).

The minutes noted (page 5, para 3.1) that Mr Bell presented the agreed plan and phasing for the next stages of the MUDFA works and that he confirmed that *"despite an anticipated slippage of approximately five weeks, the alignment with the Infracore programme was maintained"*. Reasons for the delays in certain areas were: greater congested services than anticipated, SUC's issue of locating own assets; and AMIS resource level below the Rev 06 programme (para 3.2). Currently 30% of expected works were completed.

The Boards received updates on the progress in relation to the Infracore and Tramco negotiations on pricing, programme, scope and risk profile etc. Under SDS Novation, it was noted (page 6, para 4.7), that *"some details were outstanding and were being negotiated robustly"*.

In relation to Design Management after Close (page 7, para 10.2) it was noted that *"from novation onwards, the contractual relationship with SDS moves to BBS. However, tie and CEC would continue to support and manage BBS in this regard"*.

(1) What was your understanding of, and views on, these matters?

The SDS novation process was proving difficult to negotiate – I do not recall the exact issues under negotiation but design issues became central to the ongoing programme delay and costs increases later on.

57. In an e-mail dated 16 April 2008, re Infracore Exclusions (CEC01245274), Andy Conway asked a general comment as to whether TIE had identified costs for all items that will require TIE changes. He also asked, *"The scope of the works related issues refer to the status of the design as of 25 November. Our concern is that if the design has changed, or at least developed, since then (and say a prior approval has been granted) then a change will need to be issued. Have tie undertaken an exercise to determine the extent and cost of changes that will be required since the design freeze in November?"*.

You replied that *"BBS are contractually obliged to construct to the designs that SDS produce and get consented. We have been identifying significant changes as design has progressed to ensure that we have made financial provision – e.g. Burnside Road. Normal design development is a BBS risk as described in Schedule 4 of the Infracore contract"*.

(1) Do you have any comments on these matters?

No. I cannot expand upon the comments that I made at the time.

- (2) What did you understand by "normal design development"? Can you give illustrations?

I am neither an engineer nor a designer. However, I understood that there would be a concept design for BB to complete. If however CEC as the client wished to "gold plate" the design, that would be a TIE change. This became one of the key issues of interpretation in the contract.

58. By e-mail dated 28 April 2008 Mr Bissett attached a Report on Infraco Contract Suite (**CEC01312363**) which noted, in relation to Price, that "A number of core pricing and programming assumptions have been agreed as the basis for the Contract Price. If these do not hold, Infraco is entitled to a price and programme variation known as "Notified Departure" (p4) and, in relation to Programme, that "Following contract signature, it is expected that BBS will seek a Notified Departure on Programme due to SDS delay in design production" (p4).

- (1) This appears to be a reference to the Pricing Assumptions in Schedule 4 of the Infraco contract (**USB00000032**). What was your understanding as to (i) why a number of core pricing and programming assumptions had been agreed and (ii) what would happen if any of these assumptions turned out not to be correct?

I understand they were agreed as part of the contract negotiations for certain elements where a fixed price could not be agreed. These were outlined in the pricing assumptions and provisional sums. If any of the assumptions turned out not to be correct then this could lead to a notified departure and potential cost increase.

59. The Construction Director's Report for the meeting of TIE's Utilities sub-committee on 7 May 2008 (**CEC01300994**) noted, under Overall Performance to Date, that a total of 12421 metres (against a planned 16051 metres had been undertaken), including 65 chambers (out of 120 planned chambers). Under Period Progress it was noted (page 2) that there was a downturn in output from the previous period i.e. 70% achieved in this period and 77% achieved in total to date. The cumulative effect on the sections was approximately 7 weeks. The overall effect on the critical path remained at 2 weeks, "but implementation of revised recovery programme actions required urgently". The key areas of delay were as before and additional demands/constraints imposed by Traffic Management. It was noted (page 3) that elements of the city centre works (the Mound area) would extend into the first quarter of 2009 (the minutes of the meeting are **CEC01302139**).

- (1) Did that accord with your general understanding at that time? Do you have any further comments?

Yes. I have no further comments.

60. On 12 May 2008 (at 18.49 hours) Graeme Bissett circulated an e-mail (**CEC01338846**) attaching a final set of TIE's internal approval documents.

The Financial Close Process and Record of Recent Events dated 12 May 2008 (clean copy, **CEC01338847**; tracked changes, **CEC01338848**) noted that a

response was received from BBS on 7 May 2008 which proposed a payment of £9m to BBS and *"Further examination of the contract terms surrounding the design management process, which although unclear pointed to an extended design and consent programme with potentially material adverse consequences for the construction programme"* (p4).

- (1) What was your understanding of that matter including whether that would create additional risk, and cost, for TIE?

The report recommended an increase in the Infraco contract price and looked at a range of alternatives. However, this was an indication of the commercial approach BB took and their lack of partnering ethos and pointed to a contractually aggressive form of managing the contract to protect claims for additional fees and programme extension.

I think we hoped that the increase now might remove some of the concerns Infraco had and so reduce the potential for further costs increases. This turned out not to be the case.

61. On 13 May 2008 parties signed the Kingdom agreement (**WED00000023**).

- (1) It would be helpful if you could explain your understanding of the need for, purpose and effect of that agreement?

I recall it was another step in finalising the conditions in the Infraco contract. I was not involved and so could not comment further.

62. On 13 May 2008 the Council's Policy and Strategy Committee considered a report by the Council's Chief Executive (**CEC01246115**).

The report advised that the estimated capital cost for phase 1a was now £512.2 million. The report stated that *"Offsetting the increase in cost is a range of negotiated improvements in favour of TIE and the Council in order to reduce the risk of programme delays and minimise exposure to additional cost pressures, as well as better contractual positions"*.

- (1) What are your views on the statement noted above?

The report accords with my understanding.

- (2) Do you agree with it? If so, what do you consider were the "improvements" and "better contractual positions" that reduced the risk of programme delays and minimised exposure to additional costs?

These improvements included the capping of road re-instatement costs, capping road related prolongations and minimising risks of claims from works underway. This was meant to reduce these risks and I agreed with it at the time, albeit I did not agree with the manner in which BB had presented the last minute request.

63. Infraco contract close took place on 14 and 15 May 2008, as part of which a number of contracts were signed, including the Infraco contract (**CEC00036952**) and novation of the SDS contract to BSC.

By way of overview, what was your understanding of the following matters at contract close:

- (1) The extent to which detailed design was complete (and all necessary statutory approvals and consents had been obtained), the extent to which these matters were outstanding and when the detailed design would be completed (and all approvals and consents obtained)?

The design was not complete but the design programme was contained in the overall programme. Infraco had carried out due diligence and the outstanding consents, designs etc were all reported to the TPB and CEC in the close report before Infraco award.

- (2) The extent to which utilities diversions were complete, the extent to which these works were outstanding and when these works would be completed?

The utility diversions were not complete at that point but they were not impacting on the infraco programme at that point. Allowances had been made in the risk contingency should they be delayed and start to impact on the Infraco programme so this was felt to be a possibility.

- (3) The likely effect on the Infraco works and contract (and the cost of the tram project) if the outstanding design (and approvals and consents) and outstanding utilities diversion works were not completed within the anticipated timescale?

This was already having an impact and the first notified departure was in relation to the slippage in this programme between V26 and the time at which the infraco contract was signed (V31).

- (4) The provision made in the risk allowance for these matters?

Substantial risk provision had been made for both eventualities.

- (5) To what extent were these matters discussed (i) within TIE and (ii) with CEC?

These were discussed at various levels both within TIE and with CEC.

64. The pricing provisions of the Infraco contract were set out in Schedule 4 (USB00000032). Schedule 4 contained a number of Pricing Assumptions.

- (1) What did you consider were the main Pricing Assumptions that were likely to change and result in Notified Departures and why?

There were a total of 43 pricing assumptions. I considered the ones most likely to result in a notified departure were 4 and 24 as we were aware of the potential for the ongoing delay to both the design and utility diversion.

- (2) Approximately how many Notified Departures did you consider were likely to arise?

I did not have a number in mind.

(3) What did you consider to be the likely total value of the Notified Departures?

I did not have a figure in mind but assume we considered the contingency in place would be sufficient to cover these.

(4) Pricing Assumption 3.4 dealt with design development. What was your understanding of the meaning of that Pricing Assumption, including which party bore the risk that design development would result in a contract change?

I assume the question is referring to Clause 3.4.1. At the time I understood this to mean that Infraco took the risk normal completion of the base date design but not for changes to this (other than Value Engineering changes). However, this was tested extensively during the subsequent dispute process.

(5) To what extent were the above matters discussed (i) within TIE and (ii) with CEC?

Pricing assumptions were raised in the close report.

65. A lessons learned type review took place following contract close. In an e-mail dated 2 June 2008 (CEC01350044) you listed a number of things that had been done well and a number of things that could have been done better including: *"Procurement team changed too much during the entire process", "Market reaction to our procurement strategy was poor", "Design not being complete before we were in tender process was a big problem for us", "Engineering team wasn't in place to begin with and then wasn't strong enough to support technical evaluation" and "design up front – need to consider the merits of this in future".*

(1) It would be helpful if you could explain your thoughts on these matters in a little more detail?

Procurement - there were various people and organisations involved in this over time so no-one person or organisation was involved continuously from strategy to implementation. During the latter stages the Commercial Director (Geoff Gilbert) was heavily involved but then Matthew Crosse and Willie Gallagher were involved in some of the key meetings with BBS etc. At the final stages the team had moved on again with Steven Bell replacing Matthew Crosse and then a new commercial director coming in for the implementation phase.

Market reaction – for Infraco there were only finally two bidders, after a third dropped out. This perhaps should have been an indication that the strategy was not favoured by the market and would be difficult to negotiate.

The design was a dynamic feature of the project. As well as reticence on the part of the Infraco contractor to take on the design responsibility through novation, the continued slippage of this programme didn't help confidence. Had a stronger engineering team been in place earlier perhaps we could have managed the designer and CEC approvals process more effectively.

Design up front – This was driven as a result of previous tram projects where it was felt that such projects were expensive if tendered as design

and build. This was due to contractors pricing for the costs associated with taking on design risk.

2008 (June to December)

66. Following contract close, a major dispute arose between TIE and BSC in relation to the interpretation and application of the Infracore contract and Schedule 4. By way of overview:

(1) What were the main matters in dispute?

There were several disputes which arose but I think the one referred to is the assumption around normal design development and Pricing Assumption 1.

(2) (3) (4)

(2) What were the main reasons for, or underlying causes of, the dispute?

This issue was around the interpretation of what was normal design development and what constituted changes to design principle, shape and form and outline specification. In particular where the parties disagreed was the interpretation of clause 3.4.1 and the meaning of the words contained in this clause.

(3) With the benefit of hindsight, do you consider that there was a sufficiently clear, consistent and correct analysis and strategy by TIE at the outset to resolve the dispute with BSC?

Yes – there was an agreed methodology for resolving disputes within the contract and TIE followed that, with the endorsement of the Board. We sought legal advice during the process and were guided by that.

(4) Again, with the benefit of hindsight, do you consider that TIE could or should have done anything differently, or earlier, to try and resolve the dispute?

TIE did everything it could, including mediation and use of the various contractual mechanisms available. The Board were given all the options.

67. The Construction Director's Report for the meeting of the Utilities sub-committee on 4 June 2008 (CEC01302139) noted under Overall Performance to Date, that a total of 15288 metres (against a planned 24322 metres had been undertaken), including 86 chambers (out of 140 planned chambers).

Under Period Progress it was noted that there had been improvements in Leith Walk (Foot) and Shandwick Place where outputs were circa 80%, but that remaining sections indicated similar outputs as before, at circa 65%. Overall progress in the period was 56% of planned progress. Cumulative progress was 6 weeks behind, and 2 weeks against the critical path.

By e-mail dated 3 June 2008 (CEC01288728) Tara Edgar circulated that report.

In an e-mail on 3 June (in the same chain) Willie Gallagher stated *"I have just reviewed this report. It worries me that all is not well. You would never have picked this up from the TPB formal report, there are issues all over the place"*.

In another e-mail on 3 June (in the same chain) Graeme Bissett stated, *"I do think the reporting here and in the TPB papers (which I assume is the TS Report) is not sufficiently detailed to disclose the vital signs. For example, the Committee Report says we are nearly 40% behind on physical progress, but there is nothing I can see which relates this in a rationalized way to the commentary that programme is 6 weeks behind and will have just two weeks Infraco impact; nor is there a cum cost versus related budget analysis which should relate to the physical progress and programme"*.

(1) What were your views on these matters?

I have no knowledge of the e-mails as I was not copied in on them. The initial table clearly shows that progress is significantly behind what was planned. The issue appears to be simply that there is a lack of accompanying narrative. I do agree that this report does not specifically mention impact on Infraco or the budget impact.

(2) Were the problems with the utilities works in the first half of 2008 fully reported to the Tram Project Board (and, if not, why not)?

I believe so, yes.

68. The Tram Project Board met on 4 June 2008 (**USB00000005** at page 5). The minutes noted (page 7) that Mr Bell appraised the Board of current MUDFA progress *"including the close out programmes, the current two week impact on the Infraco critical path and Revision 7 of the programme"* (slides presented to the meeting, **CEC01312258** at page 6, noted that Revision 7 of the Programme was being finalised to enable any impact to be mitigated).

David Mackay raised a concern over the *"ongoing issue of Carillion resource and supervision"*. Willie Gallagher explained that *"both tie and Carillion had underestimated the complexity of managing so many worksites"* and that areas that affect the Infraco critical path were being prioritised (page 7).

(1) What was your understanding of these matters?

At this point we anticipated that the MUDFA programme could be prioritised and amended to prevent impact on the Infraco programme.

69. The Tram Project Board met on 2 July 2008.

The minutes (**CEC01237111**) noted *"MUDFA progress is improving, but is still not as good as the project team would like. Critical areas include the Foot of the Walk, Haymarket and St Andrews Square"* (para 2.5).

In relation to Programme, it was noted that a number of significant project milestones were behind programme *"but were either not critical to the end date of the project or critical elements are being prioritised and non-critical elements*

delayed" (para 2.10).

It was also noted that *"The close out plan for aligning Infraco Proposals with the SDS design (particularly roads and OLE) is being finalised and SB will report to the next TPB on the associated programme and costs"* (page 7, para 2.14).

It was noted, *"SB summarised that the primary risk register is currently light on Infraco specific risks and that a thorough review is already underway dealing with specific risks ,especially mitigation plans"* (page 8, para 6.1).

(1) What was your understanding of, and views on, the matters noted above?

In relation to the MUDFA progress and programme the documents reflect my understanding at the time.

(2) What "Infraco specific risks" was the risk register light on and why? What was done to address that?

I do not recall what the Infraco specific risks were. Steven Bell reported that a thorough review was underway and although I cannot recall the detail I assume that was undertaken.

70. In July 2008 a Peer Review (led by Malcolm Hutchison) was carried out (CEC01327777).

The report noted, under MUDFA Lessons Learned, that *"The fact that the completion date remains uncertain (works 60% complete) will have an increasing impact on the Infraco works"*.

The report noted, under Contract Issues, *"It is unclear to the review team where risk lies for design development. BBS and tie in interview considered risk lay with the other party"*.

(1) Did these matters cause you concern?

Yes.

(2) To what extent were you aware of these difficulties prior to Infraco contract close?

I was not aware of these difficulties prior to contract close. I cannot recall at what point I became aware of this difficulty. The drafting of the contract and the normal design development clause was intended to deal with the issue of changes to the design. However, both parties had different interpretations of what this meant – I only became aware of the different interpretations after contract close.

(3) To what extent were these matters discussed (i) within TIE and (ii) with CEC prior to Infraco contract close?

I believe that there was a document from DLA at the time of contract close which identified the key risks. However I do not have access to this document and cannot therefore comment.

71. An e-mail dated 10 July 2008 from Stewart McGarrity (CEC01341456) noted that Transport Scotland were very unhappy about TIE's four weekly report in that, in particular, it did not give them a clear picture as to how TIE were addressing programme slippage (see also Rebecca Andrew's e-mail dated 27 August 2008, CEC01047161).

(1) What were your views on that matter?

We took their views seriously and offered to meet to understand the concerns. The issue was made worse by TS not being represented at the TPB at that point.

(2) Were steps taken to address TS's concerns?

As I recall we met with TS and CEC to agree improvements in reporting.

72. The Tram Project Board met on 30 July 2008.

The minutes (CEC01053601) noted that you gave an update on the MUDFA works and that the team was still working to get MUDFA finished by the end of 2008 (page 6, para 2.5). Willie Gallagher is noted as stating that *"rather than being design driven, the MUDFA delay is driven by poor logistics and management and that the Board should not be unduly worried about progress"* (page 6, para 2.5).

It was noted, under Programme, that *"Infraco was now claiming that the current delay is due to poor IFC drawings and that they want to be paid to accelerate the programme. The counter to that argument is that tie has delivered and BSC has not been ready to mobilise. WG is holding further talks at a senior level"* (para 2.12).

An e-mail dated 4 August 2008 from Tom Hickman, Programme Manager, TIE (CEC01298593) attached a report on the current status of the draft MUDFA Rev 07 Programme that showed potential clashes with the Infraco programme (CEC01298594).

(1) What was your understanding of, and views on, these matters?

The matters reported in the minutes were a fair reflection of the status at that time. The report completed on the MUDFA Rev 7 programme and the conflict with Infraco was part of the ongoing process to monitor programme and identify issues.

(2) Were you concerned about the progress of the MUDFA works? What were your views around that time of whether the utility diversion works would be completed before the start of the Infraco works?

Yes. The report identified above shows clear conflict between the completion of the MUDFA works and the potential start of the Infraco works.

73. The Tram Project Board met on 24 September 2008.

The minutes (CEC01210242 at page 5) noted that there were issues around

management direction and control from Carillion but significant improvement following an internal audit. Slippage on the MUDFA programme from Rev 06 to Rev 07 was currently 4 months (page 6).

Slides for the meeting (CEC01155850) noted, under MUDFA, that "Overall, programme is now predicting an end date of March 2009 with potential impacts on INFRACO particularly if BT overlaps are difficult to address" (page 4).

Problems were noted with Design and Consents (page 8).

Factors contributing to programme slippage included Design Change V26-V31, Mobilisation and Delivery Infraco, Design/Progress/Change V31-35 and MUDFA potential overlaps/conflicts (page 10).

(1) Did that accord with your general understanding of matters around that time? Do you have any other comments?

Yes – this accords with my general understanding at the time.

74. An e-mail dated 22 October 2008 from Christie Graham, Carillion (CEC01140099), listed the major items "which are currently detrimentally impacting or likely to detrimentally impact the MUDFA completion programme" including TM constraints, incomplete design and unforeseen and congested utilities etc.

The latest review of progress against programme gave a forecast end date of November 2009.

(1) What were your views on these matters including why there were there still problems with these matters?

The lack of service information from utility companies meant that often, the exact location and depth of existing infrastructure was not known until the road had been excavated. This meant that the conflicts were not identified until that time and then a TQ process would kick into action. From memory the project was still experiencing slow progress with SDS delivering the IFC drawings.

75. In an e-mail dated 16 November 2008 (TIE00248213), Tom Hickman noted that the live programme and the version sent to Transport Scotland were far apart and noted his concern that "I am very uncomfortable that I am to all intents and purposes fabricating a programme to appease TS that may not stand-up to close scrutiny by auditors".

(1) What was the problem? How had it arisen?

I think this may have been a contractual issue. Contractually the date had not been changed or moved. Whilst TIE were monitoring the actual progress against the programme, an actual open for revenue service date had not been agreed with Infraco and so the actual contract OFRS date (the one we reported to TS) had not changed.

(2) Do you remember what was done to address Mr Hickman's concern?

I cannot recall.

76. The Tram Project Board met on 17 December 2008.

The minutes (**CEC00988028**), under MUDFA, again noted that "*Carillion performance was slower than anticipated*" (para 2.11).

In relation to Infraco, it was noted that there were ongoing discussions with BSC, collectively there had been insufficient progress but a proposal had been agreed to give BSC comfort in areas where they perceived they were exposed. There were noted to be "*access issues*" at Haymarket and Leith but there were no impediments to work at the depot and airport (para 2.15).

(1) What was your understanding of, and views on, these matters?

I agree with the minutes and at that time we were reporting that Infraco had been slow to mobilise sub-contractor & direct resources which was impacting on their progress. My view was that Infraco were using MUDFA and late designs to mask their slow mobilisation.

(2) Do you remember what were the "access issues" at Haymarket and Leith?

I think that the access issues may have been the incomplete utility diversions and traffic management access.

EVENTS IN 2009

77. We understand that a meeting took place between BSC and TIE on 9/10 February 2009 to discuss the dispute.

Stewart McGarrity produced a note of the meeting (**TIE00089656**).

(See also, for example, (i) TIE's slides provided in advance of the meeting, **DLA00003129**, (ii) TIE's note on BDDI, **TIE00665341** and BSC's response, **CEC01119885**, (iii) TIE's note on BSC Claim for Change from BDDI to IFC, **TIE00665342**, and BSC's response, **CEC01119886**).

(1) Were you present at the meeting? If so, what is your recollection of who was present, what was discussed and the outcome?

No – I was not at the meeting.

(2) Mr McGarrity's note of the meeting record (paragraph 4) Richard Walker of BSC as having said that there was general acceptance by TIE pre-contract that the project would cost £50m-£100m more than what was in the contract at 15 May 2008. What are your views on that suggestion?

I do not agree with that suggestion.

78. The Tram Project Board met on 11 February 2009.

The minutes (**CEC00988034** at page 5) noted that the MUDFA work was now 65%

complete (page 7, para 2.32).

Slides for a joint meeting of the TPB and the TIE Board on that date (**CEC00988036**) noted, under Project Delivery, Infraco Progress, that there was disappointing progress with ongoing issues with delayed appointment and mobilisation of package/sub-contractors, design slippage and design changes, incomplete/delayed utility diversions, submission of estimate and agreement of change order and consortium integrated programme (page 4).

Another slide, Project Delivery, Infraco Issues Resolution, noted that there was a *"significant risk of a major dispute with Infraco"*, which was drawn from a number of issues, including: BSC's refusal to progress works which may be affected by a change which has not been subject to issue of an agreed TIE Change Order; BSC's failure to provide timely and/or competent estimates to allow a change to be assessed and if appropriate a Change Order to be agreed and issued and specific areas of disagreement e.g. responsibility for changes in design from BDDI to IFC (page 4).

- (1) When were the Tram Project Board first advised that there was a significant risk of a major dispute with Infraco? Had they been advised of that prior to that meeting (and, if not, why not)?

The Board were being made aware of the ongoing difficulties in the Board paper of December 2008, albeit this did not mention a major dispute. The extent of claims from Infraco were not apparent until the meeting referred to in Question 77. The Board were advised just a couple of days later that a dispute was likely. I cannot find the notes to the board meeting of 2009 and so cannot recall what might have been said to the Board at that point.

79. A dispute arose in relation to the Princes Street works, which were due to start in February 2009.

After discussions and correspondence over a number of weeks, an internal TIE e-mail dated 20 March 2009 noted that David Mackay and Dr Keysberg had that morning agreed the principles of an agreed amendment to the measurement and payment regime for Princes Street (**CEC01009977**).

The dispute was resolved by parties entering into the Princes Street Agreement (**CEC00302099**) (we understand that an initial draft of the agreement was agreed on 20 March 2009, to allow work to commence on 23 March, and that the final version of the agreement was signed on 30 May 2009).

- (1) When (and how) were you first aware that there was a dispute in relation to the works at Princes Street?

I cannot recall the exact timing of when I became aware of this but I do recall that this did not become apparent until quite close to the planned date of the Princes Street closure. The threat of not starting work on Princes Street until a revised payment mechanism was made very close to the planned date for closure of Princes Street and after a significant amount of traffic management works and diversion preparations had been implemented.

- (2) What was your understanding of the basis, and underlying cause(s), of the Princes Street dispute?

This related, as far as I recall, to the design and payment mechanism. Infraco were claiming this was a notified departure under the contract.

- (3) What was your understanding of why BSC refused to start work on Princes Street?

I understand they refused to start work until a revised payment mechanism for this work was agreed.

- (4) Did you have any involvement in resolving the Princes Street dispute?

Not that I recall.

- (5) Why was it agreed that BSC would carry out the Princes Works at demonstrable cost (plus overhead and profit percentages etc)?

As I understand it this was to try and get Princes Street works underway. Traffic management throughout the city to cater for this had been implemented along with the overall closure communications.

- (6) Did you consider, at the time, that that was likely to result in the cost of the Princes Street works being greater than the sum allowed for these works in the Infraco price?

Yes, as I recall.

80. A joint meeting of the Tram Project Board and TIE Board took place on 11 March 2009 (the minutes are **CEC00888781** at page 6).

A paper by Stewart McGarrity, "Infraco Options Analysis" (**CEC00933931**) noted (at page 3) that the budget of £545 million was likely to be exceeded in the event of any of the following, namely: significant further delays to construction; re-procurement of the civil works; if TIE did not prevail in their contractual position with regard to Infraco responsibility for design evolution or the consortium's failure to commence work where dynamic management of the programme would have allowed; or in the event that a cost plus basis was agreed to settle the contractual disputes and programme.

The paper suggested that a "safety valve" of £30 million was required.

The scope options included truncation of the Phase 1a scope i.e. delivering a shorter tram line.

- (1) Approximately when did you first consider (i) that it was unlikely that Phase 1a would be built within the budget of £545 million and (ii) that truncation of the tram line may be necessary?

I think it would probably have been around the time when the dispute was starting to crystallise (February 2009), although I cannot be certain.

81. A joint meeting of the Tram Project Board and TIE Board took place on 15 April 2009.

The minutes noted (**CEC00633071**, page 6, para 2.8), that *"DLA were confident of tie's position with regard to the principle areas of contractual disagreement with BSC and this is to be supplemented by reinforcing technical analysis and legal opinion"*.

A joint paper by Mr Bell and Mr McGarrity on "Strategic Options – Update and Forward Planning" (**CEC01010129**) noted (page 1) that TIE's commercial strategy included a targeted dispute of matters through the contractual Dispute Resolution Procedure.

The paper also noted (page 2) that the Princes Street Agreement was *"consistent with obligations under the Infraco contract"*.

(1) What was TIE's strategy around that time in relation to the dispute with BSC?

The strategy was to deal with individual issues through the dispute mechanism in the contract.

(2) How confident were you of TIE's position in relation to the principal areas of contractual disagreement with BSC? Did your views in that regard change at any time (and, if so, when and why)?

We were guided by legal opinion. I cannot recall the detail of confidence levels around each dispute but I do believe that this information can be found in papers produced at that time.

(3) Did you consider that the Princes Street Agreement was consistent with the Infraco contract (given, for example, that the Princes Street Agreement was for the works to be carried out on a cost plus basis whereby the Infraco contract was described as a fixed price contract)?

In respect of the client being responsible for unforeseen ground conditions then yes. Fixed price contract does not mean that there will be no change in the cost as these are dealt with through a change mechanism for risks retained by the Client.

82. A joint meeting of the Tram Project Board and the TIE Board took place on 3 June 2009 (the minutes are **CEC00983221**, page 5).

Slides for the meeting (**CEC01007729**, page 6) noted that overall 77% of all diversions were complete, that a strategy to close down the MUDFA contract by the end of August had been implemented and sections 1A (Newhaven Road to Haymarket) and 7 (Gogar to Edinburgh Airport) were out to tender.

(1) Why had a strategy been developed to close down the MUDFA contract and to re-tender the remaining utility diversion works?

I cannot remember.

83. By e-mail dated 2 July 2009 (**CEC00766380**) Stewart McGarrity circulated a

draft Estimate Range Sheet (CEC00766381) which showed how the (undrawn) Risk Allowance had increased from £19.7 million when the budget was approved (at Infraco contract close) to £112.3 million on a worst case scenario (and which was subject to a number of exclusions including, for example, future INTCs and TIE Changes).

By way of overview:

- (1) Did you agree with the general break down of the risk allowance at that time (including, for example, that the largest sums in the risk allowance were in respect of "Delay-EOT2 and future" and "Design (incl BDDI to IFC)"?)

Yes – I agree that Delay EOT and Design were likely to be the largest element of any risk allowances.

- (2) Were the figures in these draft documents (or similar figures) reported to the Tram Project Board and CEC around that time (and, if not, why not)?

The Board paper Period 03 9/10 makes reference to a review of the QRA review and figures submitted to Transport Scotland. I cannot recall if these actual figures were put in the TPB papers. As I recall there was a view that material of too sensitive a commercial nature such as this could be leaked if it was included in the Board papers (which were distributed to elected members), and therefore may give Infraco a view on contingency allowances being made, thus eroding the negotiating position of tie/CEC. Information was given to the Board by a slideshow each month partly because of the concern about sensitive information in the Board papers being leaked.

- (3) Why had the risk allowance (and the total estimated cost of the project) increased so dramatically?

As I recall due to the crystallisation of the Infraco extent of dispute and ongoing legal advice – the figures presented included a best worse and mid range view.

- (4) To what extent do you consider that that increase (or the risk of such an increase) could and should have been foreseen prior to Infraco contract close?

At the time of contract close I did not envisage the level of disagreement or dispute there would be between the parties and so do not consider that this level of risk could have been foreseen at this point.

84. A joint meeting of the Tram Project Board and the TIE Board took place on 8 July 2009.

Slides (CEC00783725) set out (pages 10 and 11) the preferred option of a Formal Contractual Approach and the options of reducing BSC's scope, ending the Infraco contract and other scope options (i.e. truncation).

- (1) What were your views around that time on the best option for TIE to follow in relation to the Infraco dispute and completing the works and the prospects of that option being successful?

The formal contractual approach appeared to be the option which should be adopted in the first instance and which was aimed at delivering certainty based on the outcome of DRP. It also had the advantage that the Infraco could be instructed to continue work while the dispute was being resolved.

85. A joint meeting of the Tram Project Board and the TIE Board took place on 29 July 2009 (the minutes are **CEC00739552** at page 7).

Richard Jeffrey presented his quarterly review (**CEC00376412**) and noted (page 3) the following problems as having been "baked in" from the beginning, namely: risk management strategy; procurement strategy; design/design management; contractor appointment/behaviour; and optimistic estimates.

(1) What were your views on these matters?

These were the views of Richard having been in the role for 3 months. I agree with the issues surrounding design/design management – these were apparent from before Infraco contract close and the TIE team were reporting these before contract close. I also agree with the point on contractor appointment/behaviour – the contractor took a very aggressive stance from the beginning and did not engage in the spirit of collaborative working which I would have expected.

On risk management, my view is that the risk of design transfer may be what Richard was referring to along with the problems which emerged downstream. Richard's views were based on hindsight which he had the benefit of at this point in the project.

On "optimistic estimates", I believed that the estimates were robust at the time of contract close. Again, Richard had the benefit of hindsight at this point in the project.

86. By e-mail dated 31 July 2009 (**TIE00031088**) Martin Foerder, BSC, sent Richard Jeffrey BSC's "Final Settlement Proposal" (**TIE00031089**).

We understand that discussions then continued in the second half of 2009, in particular, in relation to the on-street works.

We further understand, for example, that parties met on 6 October 2009, and thereafter, to explore the possibility of using the Princes Street Supplementary Agreement as the basis of a wider On-Street Supplementary Agreement

(1) What was your involvement in, and views on, these discussions?

I do not recall being involved in many, if any, of the direct discussions between TIE and Infraco on this. My view at the time was that Infraco were being commercially aggressive.

87. The Tram Project Board met on 26 August 2009.

The minutes (**CEC00848256**, pages 6 and 7) provided an Overview of Current Progress with the Infraco and Utilities works.

In relation to utilities, Mr Bell provided a summary of the increased scope over and above the tendered utilities quantities (i.e. 46,575 metres and 295 chambers compared to an anticipated 27,188 metres and 190 chambers), it being noted that *"Most of these scope increases can be attributed to a combination of inaccurate utilities records, unknown apparatus, congestion/obstacles and resulting re-design and alternative routeing"*. While there were value for money benefits arising from the increased scope, these would be tempered by programme impacts.

Carillion were at 96% completion (although challenging areas remained to be completed at Haymarket and York Place/Broughton). Farrans were undertaking the utilities diversion works to programme at the airport and were expected to be completed by the end of November 2009. Tenders for the section 1a (Newhaven Road to the Foot of the Walk) utilities were under review and a recommendation to award would be made in mid-September.

The minutes (page 8) set out that the matters that had been chosen for the formal Dispute Resolution procedure were as follows, namely:

Tranche 1 (Extension of Time 1 and Hilton Hotel car park)

Tranche 2 (BDDI Gogarburn Bridge and BDDI Carrick Knowe Bridge)

Tranche 3 (BDDI Russell Road Bridge, BDDI Earthworks in Section 7/Gogar to the Airport and Value Engineering)

Tranche 4 (to be notified, but encompassed Extension of Time 2 and SDS)

Tranche 5 (Edinburgh Park valuation, had been agreed at £50k without the need for DRP, against a claim of £450k).

(1) Did that accord with your general understanding of matters around that time? Do you have any other comments?

Yes – I have no other comments.

(2) Why were the items noted above chosen for the Dispute Resolution Procedure? To what extent, if at all, were these adjudications intended to establish principles of wider application, or provide guidance, in relation to the other matters in dispute?

As I recall, these were chosen based on the high value and high risk and delay items and which should give clarity on points of principle which could then be used across other areas of disagreement.

88. An adjudication decision was issued on 13 October 2009 by Robert Howie QC in relation to the Hilton Hotel car park works (**WED00000026**, page 10)

Adjudication decisions were issued on 16 November 2009 by Mr Hunter in respect of the Gogarburn Bridge (**CEC00479432**) and Carrick Knowe Bridge (**CEC00479431**).

On 4 January 2010 Mr Wilson issued his adjudication decision in relation to the

Russell Road Retaining Wall Two (CEC00034842).

- (1) What were your views, in general, on these adjudication decisions, including the extent to which they favoured TIE or BSC (both in relation to whether a change had occurred and in relation to the value of that change)?

The adjudication process provided some clarity. Again, I am not an engineer or a designer so cannot express a view on the more technical aspects of the decisions.

- (2) Did these decisions give you any pause for thought as to whether TIE's strategy, including its understanding of the contract, was correct?

Some of the adjudication decisions were disappointing. At times we lost the point of principle, but succeeded in driving down costs. My recollection is that we considered all possible options and the strategy developed was always presented to the TPB for approval.

89. The Tram Project Board met on 18 November 2009.

The minutes (CEC00416111, page 7) noted that the Board approved the issue by TIE of a Change Order for a settlement of Extension of Time (EOT) 1 of £3.524 million (being 7.6 weeks EOT for the impacts of SDS programme v26 to v31).

It was also noted (page 7) that the Board approved the interim award of 9 months relief and 6 months costs in relation to the Programme to Complete (see also, for example, in that regard (i) paper by you on Programme Agreement & EOT, CEC00752774, and (ii) Mr Bell's letter dated 13 November 2009 to Martin Foerder, DLA00001717).

There was reference to setting up a sub-committee with delegated authority to enter into an On Street Supplemental Agreement (OSSA), on a demonstrable costs basis (page 7).

Slides for the meeting (CEC00835831) gave an update on Infraco progress (page 8) and Utilities progress (page 16).

- (1) It would be helpful if you could explain, in general terms, what EOT 1 was for and why it was settled for that amount? What were the main reasons for the delay? (see e.g. your paper to the Board, CEC00752774)

EOT 1 was agreed to allow for the delays which were incurred as a result of the slippage due to delays to the programme caused by MUDFA.

- (2) To what extent had provision been made for that in the risk allowance at Infraco contract close?

I understand that this had been allowed for.

- (3) It would be helpful if you also explain what the reference to an interim award of 9 months relief and 6 months costs related to?

Some of the delays which had impacted on the Infraco programme were

deemed to be client delays. These included the MUDFA delays. Accordingly Infracore were granted relief and costs for the proportion of delay which was attributable to the client.

- (4) Was TIE's intention at that stage to enter into an OSSA, on a demonstrable costs basis for the remainder of the on-street works? What were your views on that?

This was not my area of responsibility or expertise. I cannot recall if at that point it was tie's intention to enter into an OSSA.

90. There was a joint meeting of the Tram Project Board and TIE Board on 16 December 2009.

The minutes (CEC00473005) noted (page 6, para 2.1) that agreement had yet to be reached with BSC in relation to a set of On Street Supplemental Agreements for the remaining works from Haymarket to Newhaven and that BSC had indicated that they were not prepared to commence works without these.

It was further noted that *"The Board approved the necessary additional and robust steps to be taken in the short term to target and enforce the full range of commercial mechanisms available within the Contract"*.

- (1) Do you have any comments on these matters?

I was not at this meeting as I was away on holiday and did not return until the New Year. When I returned I learned that the Board had approved the continuation of the commercially aggressive approach with Infracore to counter the hard and non-collaborative position been taken by Bilfinger. TIE had strengthened this by putting in place a new team of advisors – Tony Rush and team - to assist with the strategy and negotiations.

- (2) What was the commercial strategy discussed and agreed at this meeting?

As stated above, I was not at this meeting.

EVENTS IN 2010

91. In an e-mail dated 19 January 2010 to members of the Peer Review group (CEC00574066) you explained that three options required to be explored with a view to making a recommendation to the Tram Project Board on 10 March.

An e-mail dated 21 January 2010 by Mike Heath of the Peer Review group (CEC00625028) noted certain concerns on the part of the group.

- (1) What were your views on each of the three options?

Each option had its challenges. None were especially palatable. Option 1 – termination, would not have been easy and the grounds would need to be established and robust. Option 2 might have felt like the best option but again not easy to deliver without substantial costs. Option 3 - my view is that this would probably not have been the best way forward and would

have involved more focus on the commercial side of the project rather than building the tram and seeking solutions.

- (2) What were the group's concerns? How were they addressed?

The Peer Review team, from reading this e-mail were concerned about: 1) The scope and veracity of the information being provided to them; 2) Risk and programme; 3) integration; 4) confidentiality; 5) their personal liability. I do not recall how these were addressed.

- (3) What are your views on Mr Heath's observation that "*confidentiality of this project and its leadership might be usefully more closely defined whereas it looks like management by committee*"?

The team were always sensitive to the information which was put into the public domain as this had the potential to give Infraco an advantage in terms of commercial negotiating position. I believe, but this would have to be confirmed by Mr Heath, that he is referring to the level of information shared through the TPB which may end up in the public domain and so be available to Infraco.

92. An e-mail dated 22 January 2010 by Stewart McGarrity (CEC00554138) noted a number of concerns relating to the delegated authority rules, the risk allowance, the total estimated cost and the reporting of these matters.

- (1) What were your views on the matters in that e-mail?

The TPB report (CEC00473005) reported that it was unlikely that the project would be delivered in the funding envelope. I agree that the outturn was very uncertain given the number of disputes and so it was difficult to report any revised, accurate outturn costs. At the point of this e-mail it would seem the project was clear that the budget of £545m would be exceeded.

- (2) Do you consider that it was reasonable to "draw down" from the original risk allowance of £30 million in respect of items that had not been originally or adequately included in the risk allowance (e.g. increased utility costs and additional costs on Princes Street) or ought, instead, the project estimate, budget and/or risk allowance have been increased to reflect these new items?

Without going through the risk registers in detail, I cannot meaningfully answer. However everything which was drawn down was reported to the Board.

- (3) The e-mail refers to a "*a plan to take all the pain of budget reset in one hit*". What was your understanding of any such plan to reset the budget in one hit? When was it discussed and agreed (and between whom)?

I cannot recall who this was discussed with and when. However, I do recall discussing about going back for approval to reset the budget once we were clearer on the overall size of the increase required, as opposed to an approach where we were returning to the Board every month for incremental increases.

- (4) It may be suggested that the approach to the risk allowance noted above, together with a plan to reset the budget in one hit, would, inevitably, result in underreporting, and/or delaying the reporting of, the increasing costs of the project. What are your views on that suggestion?

I would disagree with that suggestion. My view is that the project was dealing with a number of uncertainties which made it difficult to accurately forecast being over the £545m. These risks were reported to the TPB on an ongoing basis. Additionally, as already stated, there was a sensitivity around information finding its way into the public domain which would have given Infracore an unfair advantage and suggestion that there was additional budget available.

93. By letter dated 19 February 2010 Martin Foerder, BSC, sent TIE a detailed offer for a Supplemental Agreement covering the remainder of the On Street Works (the letter and offer are both **CEC02084034**).

By letter dated 26 February 2010 (**CEC00368373**), Richard Jeffrey rejected BSC's offer for a Supplemental Agreement covering the remainder of the On Street Works.

A meeting took place on 2 March 2010 between TIE (Richard Jeffrey and Stewart McGarrity) and BSC (Richard Walker, Mr Flynn and Mr Campos) (notes were taken by Torquil Murray, **CEC00574841**).

Mr Walker replied to Mr Jeffrey by letter dated 3 March (**TIE00086932**) and sent another letter (for your attention) of the same date (**CEC00655822**).

- (1) What was your involvement in, and views on, these matters?

The letter of 3rd March was for the attention of Steven Bell, not me. I was not directly involved in the supplemental agreement for the on street works.

94. The Tram Project Board met on 10 March 2010.

The minutes (**CEC00420346**) noted (para 2.1) that Richard Jeffrey provided an update and explained the targeted work undertaken in a number of areas, namely, Performance Audits, Design, Programme, On Street Works, Contractual Mechanisms, Relationships and Behaviours, Financial Context and the Way Forward.

After discussion of the strategic options the Board approved a strategy that included the following (see also TIE's Project Pitchfork Report dated 12 March 2010, **BFB00053258**):

- Continue to pursue TIE's rights under the existing contract with vigour and seek acceptable resolution of the main disputes in accordance with the agreed plan.
- Actively address affordability and incremental options, including operational and financial viability.
- Reach a resolution on the key matters with BSC.
- Confirm a new way of working with BSC which mitigates against further dispute risk.

**BFB00053258
should be
CEC00142766**

(1) What is your understanding of the strategy approved by the Board at this meeting?

BFB00053258 which has been given to me is not the Project Pitchfork report but rather a letter from Infracore dated 24 Feb 2011 – Project Phoenix Proposal. If I am sent the correct document I will refresh my memory and attempt to answer this question.

(2) In what way did it differ from any previous strategy?

See above.

95. A spread sheet dated 21 April 2010 (**CEC00334258**) set out the responsibilities of TIE's senior personnel and noted the requirement to *"Lead the team to deliver the Project by February 2012, at a price of £575m, safely"*.

(1) We note the reference to delivering the project at a price of £575 million. Were TIE, in effect, working towards delivering the project for that price, even though a formal increase in the budget does not seem to have been sought or approved?

No.

96. An e-mail dated 26 April 2010 by Stewart McGarrity (**CEC00332138**) attached a spread sheet (**CEC00332139**) and noted that, on the face of it, the Airport to Haymarket could be delivered within £545 million, the Airport to York Place might be delivered for £545 million to £570 million (depending very much on the programme and the nature of the commercial settlement with BSC) and that the Airport to the Foot of the Walk might be delivered for £600 million to £630 million (again, very much dependent on the programme).

(1) What were your views on these figures, and options, around that time?

I would have relied on the expertise of the commercial team in terms of the figures. As stated, the document BFB00053258 which has been sent to me not the Project Pitchfork report and so I do not have access to the options to which the figures refer to.

(2) Were these figures discussed with CEC?

Project Pitchfork was – yes.

97. Further adjudication decisions were issued (1) on 18 May 2010 (by Mr Hunter, re Tower Bridge) (**CEC00373726**) and (**CEC00325885**), (2) on 24 May 2010 (by TG Coutts QC, re Section 7A-Track Drainage) (**TIE00231893**) and (3) on 4 June and 16 July 2010 (by R Howie QC, re Delays Resulting from Incomplete MUDFA Works) (**CEC00375600**) and (**CEC00310163**).

(1) Again, what were your views, in general, at the time on the outcome of these adjudications (both in respect of whether a change had occurred and in respect of the value of any such change)?

There were a range of outcomes in favour of both parties. This meant that

there was no definitive picture emerging.

98. In February 2010, Nichols produced a draft report on ETN Infraco Contract Audit on Design Assurance, System Integration (CEC00443393).

In June 2010 Acutus produced a Report on investigations into delays incurred to certain elements of the Infraco works (CEC00411814).

A draft paper, Design – An Historical Overview, was prepared in June 2010 (CEC00412129).

(1) Why were the Nichols and Acutus reports instructed i.e. what was the purpose of these reports?

These reports were produced as part of the ongoing management and dispute process with Infraco. TIE was gathering forensic evidence – Acutus did forensic programme work from a QS perspective. Nicholls did work on the design process.

(2) Were these reports shared with BSC (and, if not, why not)?

I do not recall if they were shared and if they were when. If not this would be as they were TIE's analysis for use in disputes and adjudication.

(3) What were your views, in general, in relation to the extent to which the design delays were due to which party?

From recollection this was more due to Infraco than TIE at this point, as the design contract had been novated to Infraco.

(4) Why was design still outstanding at this time?

At this point there was a view that delays were being caused by Infraco requirements being built into the design and Infraco not seeking approvals in a timely fashion.

99. On 8 June 2010 TEL formally notified CEC that the funding envelope of £545 million was likely to be exceeded in order to deliver phase 1a (TIE00084642).

(1) Why was formal notice given at this time (but not earlier)? Ought formal notice to have been given earlier?

I do not know why formal notice was not given earlier, given that it was raised with TPB earlier.

100. The Tram Project Board met on 28 July 2010.

The minutes (CEC00013703) noted (page 7, para 2.2) that, in relation to Workstream A (Termination) a consultation had taken place with Senior Counsel on 8 July and TIE was in a position to progress to issue of a Remedial Termination Notice. Work was underway to prepare estimates for the costs associated with termination.

In relation to Workstream B it was noted (para 2.3) that BSC would submit a Guaranteed Maximum price by the end of July and that BSC had confirmed that the design was sufficiently progressed to allow a fixed price to be established.

Dave Anderson, Director of City Development, CEC, confirmed that sufficient CEC resource would be applied to outstanding technical and planning approval processes to conclude these matters and remove potential blockers.

See also the paper for the meeting, Project Pitchfork 2 (CEC00414063).

(1) Do you have any comments on these matters?

No. The minutes reflect the situation at the time and I have nothing to add.

101. By letter dated 29 July 2010 (TIE00885457) Martin Foerder sent BSC's "Project Carlisle 1" proposal (CEC00183919) to TIE.

Under the proposal BSC offered to complete the line from the Airport to the east end of Princes Street for a Guaranteed Maximum Price of £433,290,156 and 5,829,805 euros (less the amounts previously paid), subject to a shortened list of Pricing Assumptions.

BSC's proposal was rejected by TIE by letter dated 24 August 2010 (CEC00221164), in which TIE responded with a counter-proposal of a construction works price (to BSC) for a line from the Airport to Waverley Bridge of £216,492,216, £45,893,997 to CAF, the amount to SDS to be determined and a sum of just under £4,922,418 in respect of Infraco maintenance mobilisation, Tram maintenance mobilisation and Infraco spare parts.

(1) To what extent were you involved in the Project Carlisle proposals and discussions?

I do not recall being involved in any of the negotiations although I would have been involved in the discussions around the proposals within tie.

(2) What were your views, in general, on the Project Carlisle 1 proposal and why it did not resolve the dispute?

In my view, Infraco were attempting to negotiate a global deal without having to substantiate many of the claims they had previously made and include in this additional design fees and fees for the on-street works. It included works to the east end of Princes Street and by this time TIE had lost confidence in Infraco's ability to undertake the on-street works.

102. On 7 August 2010 Lord Dervaird issued his adjudication decision in relation to the Murrayfield Underpass Structure including, in particular, whether, under clause 80.13 of the Infraco contract, TIE were entitled to instruct BSC to carry out Notified Departures without a price having been agreed in advance (BFB00053462).

(1) Again, what were your views, in general, on the outcome of that adjudication decision (including the extent to which the decision favoured TIE or BSC)?

The decision was against TIE we were so obviously disappointed. But I am unable to express an opinion on whether the decision was correct or not because I am not an engineer or a designer.

103. On 20 August 2010 CEC officials were given a high level summary of TIE's Project Carlisle Counter Offer (CEC00079797).

The cost of a proposed phase 1 (Airport to St Andrew Square) was estimated at between £539 and 588 million, the cost of a proposed phase 2 (St Andrew Square to Foot of the Walk) was estimated at between £75 million and £105 million and a combination of these phases was estimated at between £614 million to £693 million.

(1) How and by whom were these estimates arrived at? What part, if any, did you play?

I was not involved in evaluation of cost estimates. As I recall by this time much of the negotiation was being done by Tony Rush and his team with input from TIE commercial.

(2) What were your views on these estimates?

I would have no reason to question them but I was not a QS and so this was not my area of expertise.

(3) Did you attend the presentation? Can you recall the response of CEC officials to these estimates?

I cannot recall if I was at this presentation and so cannot recall the response of CEC officials.

104. The Tram Project Board met on 25 August 2010.

The minutes (CEC00013818) noted, in respect of Change Requests and Risk Drawdown (page 9, para 3.2) that draw downs and future commitments to planned payments to the end of Period 5 2010/11 now totalled £47,519,184 and that the remaining risk balance based on the approved QRA plus the additional funding was £800,000.

The Board were asked to, and did, approve a recommendation in the Period 5 Change Paper to increase the Project Control Budget by a further £5m to October 2010.

(1) It would be helpful if you could explain that entry, including, the Project Control Budget (i.e. how much was it, when and why was it fixed), the process by which draw downs were made on the risk balance, the effect of that on the Project Control Budget and why approval was sought from the Board at that stage to increase the Project Control Budget by a further £5 million?

Without sight of the Period 5 change paper it is hard to remember the control budget at this point. Approval would be sought to ensure there was approved funding in place until October although I cannot recall why it was £5m.

105. By letter dated 11 September 2010 (TIE00667410), BSC submitted its "Project Carlisle 2" proposal to TIE, in which BSC offered to complete the line from the Airport to Haymarket for a Guaranteed Maximum Price of £405,531,217 plus 5,829,805 euros, subject to the previously suggested shortened list of Pricing Assumptions.

By letter dated 24 September 2010 (CEC00129943), TIE rejected BSC's proposal. Mr Foerder responded by letter dated 1 October 2010 (CEC00086171).

(1) What were your views in general on the Project Carlisle 2 proposal and why it did not resolve the dispute?

I believe that the parties were too far apart at this point and there was too much of a lack of trust between the parties by this time.

106. Between 9 August and 12 October 2010 TIE served ten Remediable Termination Notices (RTNs) and three Underperformance Warning Notices (UWNs) on BSC.

The RTNs and BSC's responses are found at [CEC02084518] to [CEC02084529]. The UWNs are [CEC00378695], [CEC00167342] and [CEC00164758].

In response, BSC both denied that the RTNs constituted valid notices and, in some cases, also produced Rectification Plans.

(1) In general, what were your views on TIE's RTNs and UWNs?

These were based on legal and commercial advice which had been provided and the strategy to enter into this had been discussed and agreed formally by the TPB.

(2) In general, what was BSC's response?

Generally they disputed that these were valid RTN's as Infraco denied that there had been a breach.

(3) Were any of these RTNs or UWNs taken further by TIE and, if not, why not?

I do not remember.

107. The Tram Project Board met on 22 September 2010.

The minutes (CEC00014055) noted (page 9, para 5.1) under Utilities, that all remaining on-street utility, remedial and snagging works had been on hold until after the summer embargo and the recent Papal visit. BT continued to progress their telecom re-cabling activities on-street, with cabling works in St Andrews Square, and Torphichen Street ongoing. Cabling work at York Place would commence in Period 7.

In relation to progress overall it was noted (pp9-10) that 48,300 metres of 50,000 utilities diversions (i.e. 97%) were complete.

In relation to off-street construction 35% of works were complete. In particular:

- The Gogar depot was 60% complete.
- 8 out of 16 bridges were under construction (and were about 44% complete).
- All 3 culverts were 100% complete.
- 6 out of 17 retaining walls were under construction (and were about 19% complete).
- Systems: 1400 metres of track was installed (12% complete); 2 substations were under construction (12% complete); and work in relation to overhead lines would commence in Autumn 2010.

In relation to Project Expenditure, 70% of the authorised funding of £545 million had been spent.

(1) Do you have any comments on these matters?

No. The minutes reflect the situation at the time and I have nothing to add.

108. On 22 September 2010 Mr Porter issued his adjudication decision in relation to the Depot Access Bridge S32 (**BFB00053391**).

In relation to a subsequent request by CEC, on 27 October 2010, for a summary of the *"win/lose position regarding DRPs"*, Richard Jeffrey responded that *"we need to nail this once and for all ... it needs to be accurate transparent and positive"* (**CEC00137970**) (DLA's Commentary on the DRP decisions is **CEC00140570**).

(1) What were your views, in general, on the adjudication decision (both in relation to whether there had been a change and in relation to the value of any such change)?

The results of the disputes were different in terms of whether a change had occurred which I believe proved how the contractual interpretation was difficult. But a common theme was that the Infraco valuation of any changes was almost consistently reduced during the course of the dispute process.

(2) More generally, was there a desire on the part of TIE to report the adjudication decisions in a "positive" light? Was there a tension between "positive" and "accurate and transparent" reporting?

The results of the adjudications were reported to the Board. We did not attempt to hide from disappointing results. However as I have said previously there were concerns about the sensitivities involved with what might be reported publicly and which might therefore erode the project's case commercially.

109. The Tram Project Board met on 17 November 2010.

The minutes (**TIE00896978**) noted (page 7, para 2.1) that TIE continued to administer the Infraco contract assertively and that several sessions with Senior Counsel had been undertaken and were scheduled. CEC were also taking legal advice on these matters.

It was noted that the Board authorised Richard Jeffrey to approach BSC with an

offer to enter into a process to seek a mediated settlement.

In relation to Progress Overall, Design was noted to be 80% complete (and Construction Off Street was 38% complete).

It was noted (page 11, para 3.3) that a mediated settlement had been reached with Carillion under the MUDFA contract (see **TIE00094413**).

(1) Do you have any comments on these matters?

No. The minutes reflect the situation at the time and I have nothing to add.

(2) Why was design only 80% complete? What were the problem areas (and why)?

At this point we thought that Infracore had failed to manage SDS effectively.

(3) What was the basis of Carillion's claim? Why was a mediated settlement reached?

I cannot remember.

110. On or about 26 November 2010 Lord Dervaird issued his adjudication decision in relation to Landfill Tax (**BFB00053475**).

(1) Again, what were your views, in general, on the outcome of that adjudication (including whether it favoured TIE or BSC)?

I had no particular views. The decision was disappointing but it was a ruling which we had to deal with.

111. The Tram Project Board met on 15 December 2010.

The minutes (**TIE00897052**) noted (page 7) that the Board agreed that any further discussions around an agreed exit with BSC should consider the route between St Andrew Square and the Airport as a minimum deliverable.

In relation to Change Requests and Risk Drawdown (page 11, para 3.2) it was noted that *"following the delegated authority from TEL to the TPB authorising the use of the £545m funding envelope and the subsequent approval to increase the budget to £540m in Period 7 2009/10, tie is now seeking formal approval to increase the budget to £545m"*. The Board agreed that request and further agreed that the TPB would request that the TEL Board formally write to inform CEC that the funding envelope of £545 million had been reached and required to be extended.

(1) Do you have any comments on these entries?

No. The minutes reflect the situation at the time and I have nothing to add.

EVENTS IN 2011

112. The Tram Project Board met on 9 February 2011.

The minutes (**TIE00897064**) noted (page, para 2.1) in relation to the forthcoming mediation, that Vic Emery (the new Chairman of TIE, TEL and the TPB) considered that the option of continuing on under the existing contractual terms which may lead to either party adopting unilateral action leading to termination of the contract, *"is not a realistic option against the background of litigation risks and it was agreed that such an outcome would represent a failure of the mediation process"*.

- (1) What were your views on the preferred option at that stage? What were your views on the option of continuing on under the existing contractual terms?

I agreed that continuing as per Option 3 was not desirable.

113. On 24 February 2011 BSC provided its "Project Phoenix Proposal" to complete the line from the Airport to Haymarket for a total price of £449,166,366, subject to a shortened list of Pricing Assumptions (**BFB00053258**).

- (1) What were your views on that proposal?

I was not involved in the detailed price negotiations. However, my view was that the proposal was excessive in its extension to programme. What had been a three year construction programme to begin with, was now being extended by another two years for a reduction in the scope and a proportion of the works having been started/completed.

114. Mediation talks took place at Mar Hall between 8 and 12 March 2011. TIE prepared a mediation statement (**BFB00053300**) as did BSC (**CEC01927734**).

Sue Bruce delivered an opening statement on behalf of CEC (**CEC02084575**) and Richard Walker delivered an opening statement on behalf of BSC (**TIE00670846**).

We understand that a statement "ETN Mediation – Without Prejudice – Mar Hall Agreed Key Points of Principle" was signed by the parties on 10 March 2011 (the principles of which were then incorporated into a Heads of Terms document (**CEC02084685**)).

- (1) Which organisations were represented at the mediation? Who were the lead individuals for each party? What was your role?

I cannot remember who was in the lead for each organisation. Although present, from the start of the week it was clear that my role would be very much "back office" and I was not involved in any of the discussions apart from the opening session. Sue Bruce from CEC led and she had appointed Colin Smith to head up negotiations.

- (2) What discussion and negotiation took place that week? Was there, for example, a series of offers and counter-offers?

I was not involved.

- (3) To what extent, if at all, did TIE/CEC and BSC's positions change over the course of the mediation?

I was not involved.

- (4) What was the outcome of the mediation i.e. what were the main matters agreed?

That the contract would not be terminated, that all disputes would fall, a price for airport to Haymarket was agreed with the rest to be determined.

- (5) What were your views on the outcome of the mediation?

Ultimately I felt that Infraco had negotiated a deal which was all to their advantage in terms of cost and programme, ie a global deal with an increase in price and time to complete. I was unhappy about this given that the Infraco's behaviour in relation to issues like Princes Street had been a significant factor in matters reaching that point.

- (6) What did parties envisage would happen after the mediation to give effect to what had been agreed, and within what timescale?

I know that there was a timetable set to get the deal contractualised, however I do not recall the timescales.

115. In an e-mail dated 7 April 2011 (TIE00704012) Richard Jeffrey sent you a draft of a proposed Note to Vic Emery raising various concerns in respect of a report by Colin Smith. In your reply to Mr Jeffrey you advised that you had a list of other things you had identified in Mr Smith's report "*which I will retain for future reference if we need it*".

- (1) What were your views, in general, on Mr Smith's report?

Without seeing Mr Smith's report I cannot recall.

- (2) What were the other things you had identified in Mr Smith's report? It would be helpful if you could explain your comment about retaining your list for future reference "if we need it"?

I cannot recall and do not have access to contemporary records.

116. A full and final Settlement Agreement was entered into on 15 September 2011 (BFB00005464).

- (1) What were your views on the settlement agreement?

I felt that the programme extension which was agreed was excessive and so was the final price.

- (2) What was your role between Mar Hall and leaving TIE?

I was involved in closing tie Ltd down as CEC had decided to close the company and either make the employees redundant or TUPE them to other organisations such as Turner Townsend.

(3) For completeness, when and why did you leave TIE?

October 2011. I left under a voluntary redundancy agreement. After the mediation I felt that I could no longer effectively work with Infraco. TIE was being shut down and I volunteered to go.

FINAL MATTERS

Project Management and Governance

117. In relation to TIE:

(1) To what extent do you consider that TIE were responsible for managing and co-ordinating the different contracts and works (including, in particular, the design, utilities and Infraco works), including the interfaces between these contracts and works? How was that done?

TIE were responsible for this. They had a team of people in place, and also advisors, who had a responsibility for ensure interfaces were identified and managed. However, this was closely scrutinised by a number of layers of governance, including Boards, CEC, TS and TEL.

(2) Did you have any concerns at any stage in relation to TIE's management of the tram project? Did you have any concerns at any stage in relation to the performance of any of TIE's senior personnel or Board members?

I did not have concerns about the TIE management structure and reporting processes. At points the CEO of TIE and the Chair were one and the same person, which I thought was unusual, but this was changed with the appointment of separate people to these roles. Over a fairly short period of time there were several changes to the CEO of TIE and the Project director for Trams which lead to a lack of continuity.

(3) Did you have any concerns, at any stage, in relation to whether matters were fully and accurately reported to the TIE Board, TEL, the Tram Project Board, CEC or Transport Scotland?

See my previous answers. Latterly, we were sensitive to matters being reported to the Board etc getting into the public domain and potentially giving Infraco a negotiating advantage. Notwithstanding that issue, information was not withheld from the Boards, CEC or TS.

118. In relation to CEC:

(1) How were important matters relating to the tram project reported by TIE to CEC (including by whom and to whom)?

Important matters would be reported through the Tram Project Board. CEC executive officers and Councillors attended the Board meetings. The Board was chaired by tie's Chairman. During the construction phase there was a CEC team within the project and they had "real time" access to information about the project.

(2) How were the views and requirements of CEC fed back to TIE?

Through the Tram Project Board or via communication at a number of levels between CEC/tie staff, including the CEC staff who were seconded onto the Tram project.

(3) Did you have any concerns at any stage in relation to the performance of senior CEC officials or councillors?

I think that the inclusion of elected members on the TPB added a political dimension which was not helpful. This project was used as a political football and there were concerns about information being used externally.

119. An e-mail dated 27 September 2007 from Colin Mackenzie (CEC01653317) noted a proposal to settle a claim by SDS for a sum in the region of £1 million despite a recently approved remit of the Council's Tram sub-committee stating that the Tram sub-committee was empowered to take the final decision with respect to the settlement of any financial claims that may arise against TIE/the Council, subject to ratification by the full Council for amounts in excess of £500,000.

(1) To what extent was the Tram sub-committee involved in decision making/authorisation in relation to the tram project?

I cannot recall at this time.

(2) To what extent was there a tension between TIE wishing to proceed with the project as an arm's length delivery body and the need for democratic accountability and control by CEC, including, in particular, councillors?

TIE did report to the TPB at which there were elected members present and members of TPB. However, there was a potential issue with commercial information going into the public domain and the advantage this gave contractors.

120. In relation to the Tram Project Board (TPB):

(1) How were important matters relating to the tram project reported by TIE to the TPB?

Via the Tram Project Board meetings and reports.

(2) How were the views and requirements of the TPB fed back to TIE?

Via the Tram Project Board meetings.

(3) Did you have any concerns at any stage in relation to the performance of the TPB or any members of the TPB?

Membership of that Board changed over time. This included elected Members. There was concern about commercially sensitive information going to TPB members and potentially going into the public domain.

121. In relation to TEL:

- (1) How were important matters relating to the tram project reported by TIE to TEL?

Latterly through the TPB at which representatives of TEL were present. Or via direct contact from TIE members of staff.

- (2) How were the views and requirements of TEL fed back to TIE?

As above.

- (3) Did you have any concerns at any stage in relation to the performance of TEL or any members of TEL?

I feel that the role of TEL was confused and in creating a project board (TPB) this did not allow the role of TEL to be clearly defined. Before TEL, Lothian Buses were represented on the project. There was a feeling that they were against the project in the early days since the tram was potentially a competitor.

122. In relation to Transport Scotland (TS):

- (1) How were important matters relating to the tram project reported by TIE to TS?

Via to the TS representative John Ramsay, or direct to other TS staff via TIE and CEC. TS removed themselves from the TPB in 2007.

- (2) How were the views and requirements of TS fed back to TIE?

As above

- (3) Did you have any concerns at any stage in relation to the performance of TS or any senior officials of TS?

They were absent for a large part of the project.

- (4) What were your views on TS's withdrawal from the tram project in summer 2007? What effect, if any, did that have on the tram project?

For tie it meant that we were reporting to CEC which was easier in some respects although reports were still required to TS but without the detailed discussion which they might have been involved in previously.

123. In relation to the Scottish Government (SG) (including, in particular, the Minister for Finance and the Minister for Transport):

- (1) How were important matters relating to the tram project reported by TIE to the SG?

Most of the time via TS but sometimes tie would meet with the SG and Ministers direct. I was not at these meetings.

(2) How were the views and requirements of the SG fed back to TIE?

As above or via CEC.

124. In relation to the governance arrangements for the tram project:

(1) What are your views, in general, in relation to the governance arrangements for the tram project?

As indicated in my previous answers, my view now is that there were too many layers, too many organisations and it changed too often. The inclusion of elected members added a political dimension which I do not feel helps with delivery of large projects where there are commercial sensitivities.

(2) What are your views on whether there too many bodies and organisations involved in strategy and decision-making?

I agree – too many organisations who all felt they had an opinion or point to make.

(3) Which body or organisation do you consider was ultimately responsible for ensuring that the tram project was delivered on time and within budget?

TIE, with CEC as the Client although this was muddied by the governance structure.

The Contractors

125. In relation to the main contractors involved in the tram project (including, in particular, the design, utility and Infraco contractors) :

(1) Did you have any concerns at any stage in relation to the performance of any of the main contractors?

Yes, as indicated in my specific answers above. Delivery by both SDS and MUDFA contractors was slow and various attempts were made to remedy this. One part of the Infraco consortium – Bilfinger – was particularly aggressive and appeared to be more interested in disputing the contract than building a tram network. They in particular never appeared to have any partnering ethos and appeared to be focussed on the commercial terms rather than trying to deliver a tram system.

(2) If so, what were your concerns and what did TIE do to seek to address them?

The steps taken are documented throughout the reports to the TPB and included the normal monitoring, co-location of personnel etc.

(3) Were these steps successful and, if not, why not?

If the test of this is was the project delivered on time and on budget – then no. However, we do not know what else might have happened had the interventions not taken place.

Consequences

126. In relation to consequences:

- (1) What was your understanding of the main consequences on residents and traders of the delays in completing the project?

Residents and traders had the inconvenience of traffic management, parking restrictions etc for longer than was anticipated.

- (2) What steps were taken to address the consequences?

There was a rates relief scheme put in place which some businesses chose to take up – others did not. Additionally an “Open for business” campaign was in place to try and encourage people to keep visiting the city to shop.

- (3) Were these steps successful (and, if not, why not)?

I have no comment to make on that as I think it is subjective and I have no data to support whether it was successful or not.

Final Thoughts

127. By way of final thoughts:

- (1) How did your experience of the Edinburgh Tram Project compare with other projects you have worked on (both previously and subsequently)?

It was much more controversial and adversarial than anything I have worked on before or since. The level of dispute was far higher than anything I have worked on before or since.

- (2) What do you consider were the main reasons for the failure to deliver the project in the time, within the budget and to the extent projected?

Changing personnel – as far as I recall the project had five different project directors in my time in TIE (seven years).

Poor early performance of SDS and initially no “Engineering” lead within TIE driving the design process.

No “commercial” lead on the project until 2006 by which time the contracting strategy was well underway.

A bespoke contract which led to differences in interpretation.

Lack of partnering ethos in Infraco – they appeared to be claims driven from the start and not interested in delivering a Tram for Edinburgh.

Poor utility records which did not help with utility design and therefore implementation.

Politically driven timescales and pressure to get the main contracts

awarded.

Lack of governance clarity and tensions given the number of different stakeholders – SG/TS/CEC/TIE/TEL/Lothian Buses.

Project used as a political football as there was no agreed unilateral support for the project - this was across local and Scottish government level.

Contractor used high profile political status to their advantage – e.g. Princes Street.

Lack of strong public support – it should have had a strong communications and community engagement strategy from the start – this emerged but probably too late.

- (3) Do you have any comments, with the benefit of hindsight, on how these failures might have been avoided?

Strong political support from the start – across the political spectrum and at all levels.

Perhaps the project should have halted until the detailed design was complete and the utility diversions were well advanced before award of the Infraco contracts. However, this is based on the benefit of hindsight.

There was also a great deal of sensitivity around information entering into the public domain which was commercially confidential. This is a difficult balance to strike when spending public funds and aiming to be transparent but at the same time ensuring that a commercial position is maintained.

- (4) Are there any final comments you would like to make that fall within the Inquiry's Terms of Reference and which have not already been covered in your answers to the above questions?

The procurement strategy had been developed by looking at what had gone well and not so well on other tram and light rail projects. The strategy adopted here was aimed at mitigating those risks. The strategy was not developed in isolation and did try and learn the lessons from other tram projects, particularly UK ones. This procurement strategy, as I understand, had been approved through the various governance layers prior to me becoming involved in the project.

In hindsight one can look at the journey of the project and ask why the project was not stopped until the design was complete. However, there would have been significant additional costs associated with this in terms of keeping the project team on board until this was done, or demobilising and then re-mobilising them.

In terms of the commercial strategy with Infraco (and more importantly Bilfinger), there were early indications that the relationship was going to be contractual from the very start and this was demonstrated in the last minute change to the costs just in advance of the contract being signed. The commercial strategy developed over a period of time and was endorsed by

the various layers of governance. It would be easy with hindsight to ask why an overall settlement was not reached earlier. However, the strategy was presented, debated and agreed at TPB on an ongoing basis and within TIE we were tasked with implementing that strategy.

Almost ten years on from the award of the contract and some six years on from my involvement in the project, I have found it difficult to recall much of the detail and timeline, despite having access to certain documents provided by the Inquiry team. I have relied on these documents and so can only make comment on them if I feel they were an accurate reflection based on my memory as I have had no access to anything else since then.

I confirm that the facts to which I attest in these answers, consisting of this and the preceding 71 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.

Witness signature: 

Date of signing: 8th June 2017

Supplementary Questions for Susan Clark

1. By email dated 5 May 2008 (**CEC01294478**) Mr Hickman circulated a schedule (**CEC01294479**) of potential Notified Departures arising from the mismatch at Infraco contract close between the BBS construction programme and the SDS design programme. What consideration was given within Tie, and by whom, before contract close of the potential Notified Departures identified in that schedule? Was there any discussion within Tie (and, if so, between whom) of these potential Notified Departures? Who within Tie was responsible for quantifying these potential Notified Departures?
2. Of the approximately 78 potential Notified Departures identified in the schedule, eight are stated to have an impact on the programme, seven are stated to have a potential impact on the programme and the rest are stated not to have an impact on the programme. In relation to the potential Notified Departures that are stated not to have an impact on the programme, was that largely as a result of BBS reprogramming their works in order to avoid such an impact?
3. Prior to contract close, was it anticipated that the mismatch between the BBS construction programme and the SDS programme would result in one Notified Departure (e.g. as referred to in the Report on the Infraco Contract Suite, **CEC01338851**, page 4) or multiple Notified Departures (e.g. as listed in Mr Hickman's schedule noted above)?
4. In the event, did the mismatch between the BBS construction programme and the SDS programme result in one INTC (Infraco Notice of Tie Change) or multiple INTCs? We understand, for example, that one INTC was intimated as a result of the mismatch at contract close between the construction and design programmes (see INTC1 – **CEC01288310**) and that further INTCs were issued following each revision of the design programme i.e. revisions 32 to 56 (see e.g. the Infraco Change Register, **BFB00003297**, pages 73, 79, 80, 83, 84, 87 and 89). Is our understanding of matters in that regard correct?

Supplementary Questions for Susan Clark

1. As far as I recall we expected there to be one notified departure to deal with the variation between the V26 and V31 programme. The spreadsheet sent by Tom is the quantification of that in terms of individual programme impact. I cannot recall who would have been involved post this email being sent in discussing the impact, however, I recall that before this the team had made an assessment of the likely impact of the move from V26 to V31. Again, it is difficult to recall exactly who was involved in that discussion almost 10 years later. My notes, which I do not have access to, may shed light on that. The impact assessment would have involved looking at the total programme impact and not the individual elements as standalone items.
2. No. In some cases, even though the design programme had slipped that would have no impact on the overall programme as there was sufficient float in the programme items to allow for this.
3. One.
4. It did result in one INTC for the variation between V26 and V31 of the programme. However, post contract additional INTC's as stated were submitted for the slippage of the design programme.