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Introduction

1. We understand that you were employed by AMIS/Carillion plc as Project Director for the Edinburgh Tram Project between 2006 and December 2009. It would be helpful if you could provide an overview of the following matters:

(1) Between what dates were you employed as AMIS/Carillion's Project Director?

I was employed by AMIS/Carillion as Commercial Director for the wider business during this period - not Project Director.

(2) What are your main qualifications and vocational experience?

BSc(H) Quantity Surveying and member of the RICS

(3) Prior to the Edinburgh Tram Project, what was your prior experience in infrastructure and transport projects? What was your experience in diverting utilities in cities?

Experience as attached CV – covering infrastructure projects and programmes since 1989 including Utilities

(4) What were your main duties and responsibilities in relation to the Edinburgh Tram Project?

Commercial Director for wider business incl Edinburgh Tram Project.

(5) Who did you report to and who reported to you?

I reported to the MD AMIS/Carillion Commercial Staff across the business including this Project and for a period of the time the AMIS/Carillion Project Director

(6) Approximately how many individuals were in the AMIS/Carillion team for the tram

project? How was the team structured (see e.g. organigram for the PCS phase CAR00000822)?

I don't recall but would expect contemporaneous data to record this.

- (7) Approximately how many sub-contractors were employed by AMIS/Carillion? What was their primary role?

I don't recall but would expect contemporaneous data to record this. Subcontractors were used to carry out diversions under AMIS/Carillion management and supervision.

- (8) What was the approximate split between AMIS/Carillion employees and sub-contractors? Slides for an AMIS presentation to TIE on 3 October 2006 indicated an 80/20 split. Was that split achieved (and, if not, why not)?

I don't recall specifically but believe there was greater reliance on subcontractors than originally anticipated. I would expect contemporaneous data to record this.

MUDFA – General

The MUDFA contract was entered into between TIE and Alfred McAlpine Infrastructure Services Ltd (AMIS) in October 2006 (CAR00000300). We understand that AMIS were acquired by Carillion plc in February 2008. It would be helpful if you could give an overview of the questions in this section.

2. In relation to the utilities design:

- (1) What difficulties and delays were experienced with the utilities design?

This section 2 is covered in my previous submission to the Inquiry – attached again for info.

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

This section 2 is covered in my previous submission to the Inquiry – attached again for info.

- (3) What were the consequences of these difficulties and delays?

This section 2 is covered in my previous submission to the Inquiry – attached again for info.

3. In relation to utilities investigations:

- (1) Which organisation was responsible for instructing/undertaking the utilities investigations for the tram project?

Tie for instruction and whomever was instructed to undertake.

- (2) What investigations were undertaken (including by whom and when) to identify the utilities that would require to be diverted and replaced?

I'm not aware of what investigations were undertaken other than AMIS/Carillion were instructed on occasions to carry out.

- (3) What use was made of trial holes and at what stage e.g. were trial holes dug before the utilities design was produced in order to inform the design and/or were trial holes dug after utilities design was available but before the utilities diversion works took place?

Based on my involvement in the Project I am unable to offer any comment on this.

- (4) Were the results of the investigations reliable (and, if not, why not)?

Based on my involvement in the Project I am unable to offer any specific comment on this.

- (5) Do you consider that any other investigations could or should have been carried out before the utilities diversion works took place?

I don't have a view on this.

4. We understand that there was a Pre-Construction Services (PCS) phase. By way of overview:

- (1) What was the purpose of the PCS phase?

The Contract sets this out but from memory it was to advance understanding of scope, constraints and programme before commencing diversions – including agreement of work packages.

- (2) What was to be done during that phase? (see e.g. Appendix 2 of AMIS's Progress Report for October 2006, **CEC01836108**)

See above answer

- (3) What was the originally anticipated duration of the PCS phase? (see e.g. (i) a document produced by Carillion in September 2009, **CEC00790177**, which noted, page 1, that the PCS phase was to run between October 2006 and March 2007)

As Contract

- (4) What, if any, difficulties were experienced during the PCS phase?

Difficulties experienced are recorded in contemporaneous correspondence and records at the time.

- (5) To what extent, if at all, did any difficulties experienced during the PCS phase affect the Construction Services phase? (see e.g. your e-mail dated 25 November 2008 in that regard, **CEC01162082**)

As recorded at the time including my email referred.

- (6) Was the PCS phase completed (and, if so, when) (see, for example, Mr Malkin's letter dated 3 August 2007 (**CEC01702507**) referred (page 2) to a "break down" of the PCS phase)?

I don't believe it was completed as originally intended but have ^{no} specific recollection. 

5. In respect of the Construction Phase under the MUDFA contract:

- (1) We understand that payment was on a remeasurable basis and, for completeness; it would be helpful if you could explain your understanding of that term as it applied to the MUDFA contract?

The Work actually instructed and completed would be evaluated by reference to the contract evaluation provisions.

- (2) In general, what differences were there in the utilities diversion works that required to be carried out in the "on-street" and "off-street" sections?

Not sure I really understand the question but different locations would result in different requirements and constraints.

- (3) Which sections were more difficult and why?

See 2) above

- (4) In general, which utility works were to be carried out, respectively, by AMIS/Carillion, the SUCs and the infrastructure contractor? (see e.g. a spread sheet dated November 2006 showing the MUDFA/Infraco split, **CAR00002079**)

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

- (5) In what sequence were the utility diversion works to be carried out (see e.g. a TIE presentation dated January 2007, **CAR00001078**, page 15, Programme)? Why was that sequence chosen?

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document. Details would have been recorded at the time.

- (6) Were the works, in fact, carried out in that order (and, if not, why not)? In what sequence were the utility diversion works carried out?

I have no independent recollection/knowledge but this would have recorded at the time

(7) How did TIE exercise supervision and control over the utilities works?

They had a management team in place.

6. In relation to the Construction Phase, we understand that the utilities diversion works were due to commence in April 2007 (changed to July 2007) and were due to be completed by the end of 2008 (i.e. before the commencement of the infrastructure works) but that difficulties and delays were encountered.

By way of overview:

(1) What were the main difficulties and delays encountered in carrying out the utility diversion works?

This section is covered in my previous submission to the Inquiry – attached again for info.

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

See 1 above

(3) What steps were taken (by whom and when) to address these difficulties?

See 2 above and recorded contemporaneously

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

See 3 above

(5) When were the utility diversion works completed (or, at least, substantially completed)?

I have no independent recollection/knowledge but this would have recorded at the time.

7. In relation to AMIS/Carillion:

(1) What were your views on the performance of AMIS/Carillion in carrying out the MUDFA works?

I believe that they endeavoured to complete the contract as required.

(2) Did you have any concerns, at any stage, in relation to the performance of AMIS/Carillion and/or the performance of any senior personnel of AMIS Carillion?

Not specifically.

(3) What were your views on the following criticisms made by TIE of AMIS/Carrilion, namely:

- Insufficient resources and personnel were deployed.
- Too much use was made of sub-contractors.
- There was insufficient supervision.
- The quality of some works was poor.
- There was poor record keeping and insufficient documentation was produced in support of claims for payment and additional sums (see e.g. letter dated 16 December 2008 from Graeme Barclay, **CAR00000558** and Carillion's response dated 27 January 2009, **CAR00000073**).
- The hourly rates agreed by AMIS were too low and resulted in AMIS losing money (see e.g. the views of Thomas Caldwell, QS, TIE, as set out in an e-mail dated 5 March 2009, **CEC00956217**).

I have no independent recollection/knowledge of the documents referred. Any views would have been expressed at the time between the respective organisations

8. In relation to TIE:

(1) What were your views on TIE's management of the MUDFA contract and works?

Any views would have been recorded at the time and would have recognised that it was difficult and challenging project

(2) What were your views on TIE's senior personnel?

Any views would have been recorded at the time and would have recognised that it was difficult and challenging project

9. An e-mail exchange in May 2008 noted problems in the working relationship between TIE and AMIS (**CEC01301877**).

(1) Were there problems in the working relationship between TIE and AMIS? If so, what were the problems and when and why had they arisen?

I believe that issues were documented at the time and the working relationship came under pressure due to schedule slippage and cost escalation.

(2) Were the problems ever resolved? (see also e.g. e-mails in June, September and December 2008 and February 2009 which suggest continuing difficulties, **CEC01301877**, **CEC01148415**, **CEC01118807** and **CEC01010661**)

I don't believe that they were fully resolved as evidenced in the contemporaneous records.

(3) Did any difficulties in the working relationship cause delay or increased cost?

A more collaborative and less adversarial relationship may have improved

delivery

In the following sections we look in more detail at particular events between 2007 and 2009. 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 in 2006

10. In response to a Tender Query dated 8 May 2006 by AMIS, TIE indicated that it was anticipated that Detailed Utility Design would be complete between 25 April and 21 July 2006 and that Issued for Construction Designs would be available between 13 September and 21 December 2006 (see Mr Malkin's letter dated 23 August 2007, **CEC01702113**, which attached a copy of the Tender Query).

These dates were, apparently, predicated on an anticipated MUDFA Contract award date of 1 June 2006 and an anticipated construction start date of January 2007.

(1) What was your involvement, if any, in the tendering phase of the MUDFA contract?

I was involved in the tender discussions with Tie and the finalisation of the Contract.

(2) Do you have any comments on the matters noted above, including whether you considered the main programme dates to be realistic and achievable?

No comments

11. The MUDFA contract (**CAR00000300**) was entered into in October 2006. We understand that, at that time, it was anticipated that the MUDFA construction start date would be 4 April 2007.

(1) What was your involvement, if any, in the negotiation and conclusion of the MUDFA contract?

As 10 (1) above

(2) Do you have any comments on events around this time, including whether you considered the main programme dates to be realistic and achievable?

No comments

12. An undated AMIS document (apparently from late 2006), "MUDFA/AMIS Management Update & Situation Report" (**CAR00000002**) listed a number of Key Facts, including that:

- SDS design was currently only provisional.
- Detailed Design would not be available on 22 December 2006 as per the Pre-Construction Services programme.

- TIE Project Management team are misaligned, not focused on common delivery and possess little sense of urgency.
- AMIS will need to take the initiative and drive the SDS Utility Design process through buildability analysis and to help "Left Shift" and hold programme.
- TIE will actively encourage AMIS to participate in Infracore utility works to help disguise poor SDS performance and late delivery of design.
- SDS Detailed Design solution will comprise Section phase release commencing Mid-January 2007 through to August 2007. This will result in extended construction programme.
- AMIS will most likely commence work in central Princes Street and Granton Square to Craigleith.

(1) Who was the author of this document?

I do not know

(2) Do you have any comments on the points noted above?

No

Events in 2007

13. 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 have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

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

Mr Malkin 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 Susan Clark, TIE, 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"* (**CAR00000917**)

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**). An internal TIE e-mail dated 22 March 2007 from Geoff Gilbert, Project Commercial Director; TIE (**TIE00070136**) attached a Note on Improvements to MUDFA Working Arrangements (**TIE00070137**). While AMIS had expressed a desire for wholesale change, Mr Gilbert did not consider that to be necessary.

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.

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

I would have been aware at the time and would have supported proposals to progress resolution.

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

This would have been recorded at the time.

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

This would have been recorded at the time.

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

From recollection yes and consequently full scope would not have been known and would have emerged later in the programme.

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

I have no independent recollection

15. AMIS’ Monthly Progress Report for March 2007 (**CAR00000237**) noted on-going delays with design but also noted that AMIS had concentrated on the completion and close out of the PCS phase and that only one PCS deliverable was outstanding (Executive Summary and section 8).

(1) Was what was stated in that report consistent with the problems noted above in relation to the PCS phase (including the comment that the PCS phase was undeliverable)?

I have no independent recollection/knowledge as to the content of this document, other than the express words set out in the document.

16. By letter dated 18 April 2007 (CEC01634872) Graeme Barclay, MUDFA Construction Director, TIE wrote to Mr Malkin attaching Bill of Quantities pages that were missing from the MUDFA agreement.

(1) What was your understanding as to why the Bill of Quantities pages appear to have been missing from the MUDFA contract (see e.g. the MUDFA contract, CAR00000300, Schedule 4)?

I have no independent recollection/knowledge

(2) Did that cause any problems?

I have no independent recollection/knowledge

(3) How was the matter resolved?

I have no independent recollection/knowledge

(4) Incidentally, Schedule 8 of the MUDFA contract, Programme, also appears to have been missing. Do you have any comments on that?

No

17. In a letter dated 26 April 2007 to Alan Dolan, SDS, (CEC01691204) Graeme Barclay, TIE, noted that TIE were greatly concerned about the delay to the initiation of the utility diversion work programme and, with that in mind, had decided to implement the AMIS proposal of a Risk and Trade off programme and intended to begin the programme in section 1 (i.e. Newhaven – Leith – Leith Walk – Princes Street - Haymarket).

In his reply dated 1 May 2007 (CEC01664017) Mr Dolan stated, *"It is unfortunate that the MUDFA Construction Implementation Programme starts in the one area where tie have placed the SDS Infrastructure Design on stop"*.

See also AMIS's Monthly Progress Report for June 2007 (CEC01565583) which noted (page 4) that *"RAT 1A/1 Revision 2 proposals cancelled by TIE due to SDS Provider changes to track alignment and scheme at Ocean Terminal frontage"*.

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

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

(2) What was the "Risk and Trade off" programme? Why was it necessary?

I believe that this was set out in documentation at the time and was an approach

to progress delivery

(3) Are you aware why had TIE instructed a design hold in section 1?

No

18. By e-mail dated 14 June 2007 (CEC01630356) John Casserly, TIE, attached a revised version of a proposed agreement between TIE and AMIS, "Commercial Proposals for Construction Services following Pre-Construction Services Delays" (CEC01630357).

(1) What was the purpose of that agreement? Why was it necessary?

As set out in the Agreement

(2) Did it cause you any concerns that the MUDFA contract (and programme) required to be amended relatively soon after it was entered into?

I do not recall.

19. In a letter dated 19 June 2007, Construction Services – Delay and Disruption (CEC01636547), Mr Malkin advised that AMIS had suffered losses of about £530,000 due to the delay in the commencement of sustainable and productive Construction Services. He noted that *"the approved Pre-Construction Services Programme, as contemplated under Clause 35, indicated a total of circa 325 IFC drawings and associated data being issued on 16 January 2007 (assessed as 25% of the overall total), complete with Bill of Materials, procurement Specifications, Conflict Registers and HAZID logs. This information, at the time of writing, and opening deliverable is now twenty two weeks behind schedule i.e. five months"*. Mr Malkin considered that Revision 05 of the Programme was untenable.

(1) It would be helpful if you could explain your understanding of, and views on, these matters?

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

20. We understand that a delay 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 have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

(2) How much delay was caused?

I have no independent recollection/knowledge.

(3) To what extent, if at all, did delay in utilities design also contribute to the delay around this time? To what extent, for example, 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 design? See, for example (i) 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", (ii) AMIS's Monthly Reports for April, May and June 2007 (TIE00261238), (CEC01664355) and (CEC01565583), which note some delay caused by the election but also problems with other matters including, in particular, outstanding IFC utilities design and (iii) Mr Malkin's letter of 28 June 2007 (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?

I have no independent recollection/knowledge.

21. We understand that the utilities diversion works commenced around July 2007. It would be helpful if you could explain, by way of overview:

(1) In which sections the works commenced and any problems that were experienced?

I have no independent recollection/knowledge – this would have been recorded at the time.

22. By internal TIE e-mail dated 13 July 2007 (TIE00006965), Mr Casserly noted that TIE had been in discussion with AMIS over a period of time trying to agree the wording of papers relating to (1) the transition period from the end of the PCS phase to the commencement of Construction (TIE00006967) and (2) new contract incentivisation proposals (TIE00006966).

(see also the "MUDFA Contractor Incentivisation Proposal" circulated in September 2007, CEC01636808).

(1) Why were agreements on these matters necessary? Is our understanding correct, for example, that any incentivisation provisions in the original MUDFA contract could no longer operate because of delays in the MUDFA works and the need for a revised programme?

Contemporaneous records would cover this.

- (2) What were the effect of delays and revised programme on any penalty provisions in the MUDFA contract for not completing the works on time i.e. did the delays to the MUDFA works and programme mean that any penalty provisions in the MUDFA contract re timescales no longer operated? Were new penalty provisions agreed?

I have no independent recollection/knowledge – contemporary records would probably cover this.

23. AMIS's Monthly Progress Report for August 2007 (CEC01683946) noted (in the Executive Summary) that *"In line with the last ten monthly reports the main AMIS concern still relates to the lack of IFC detailed utility design drawings (circa 285) ..."*. A letter dated 27 August 2007 from Mr Malkin (CEC01704259) noted (top of page 4) that *"The delays are as a result of the late and inaccurate designs, the breakdown of Pre-Construction Services, insufficient detail to support planning and effective operations, together with ongoing concerns relative to the suitability, accuracy and viability of those IFC designs and design related information provided by tie Limited to date, as Employer, Project Sponsor and Project Manager"*.

- (1) What were your views on these matters?

Views on delays have been expressed in earlier answers and previously submitted responses.

24. 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? What were the more difficult sections (and why were they more difficult)? What was meant by the "initial work" work and the "physical works"?

I have no independent recollection/knowledge as to the content of/meaning of this document/comments.

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

See (1) above

- (3) Why were the more difficult sections not tackled first?

See (1) above. Programme matters would have been covered in contemporaneous records.

25. An e-mail dated 24 October 2007 from Brian McCall, Senior Engineer, TIE noted that trial holes were to be dug at Leith Walk, Shandwick Place and Duke Street and that various CCTV surveys were to be carried out (see also the Schedule of Future

TM works, which gave further details of the MUDFA works, trial holes and CCTV surveys, CEC01495740).

- (1) Had trial holes been dug (or CCTV investigations carried out) at these locations earlier? Should they have been?

I have no independent recollection/knowledge

26. We understand that Revision 06 of the MUDFA Programme was adopted in October 2007 and showed a revised completion date of December 2008. It has been suggested that, at that time, approximately 83% of the IFC designs were still not available (see (i) Mr Malkin's letter dated 30 November 2007, CEC01520590, and (ii) the "Road Map" document produced by Mr Kolon, Carillion, in September 2009, CEC00790177, page 1).

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

I have no independent recollection/knowledge

- (2) Given the difficulties and delays that had been experienced, how confident were you around that time that the MUDFA works would be completed in accordance with the revised Programme?

I don't recall.

27. 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?

I have no independent recollection/knowledge

- (2) Why had these trial holes not been undertaken earlier? Should they have?

I have no independent recollection/knowledge

28. We understand that an agreement was reached in December 2007 for a payment of £991,142.95 in relation to AMIS' claim for delay and disruption up to 30 September 2007 (and that the agreement was formally executed by means of a letter dated 9 April 2008 from Mr Barclay to Mr Malkin, CEC00217639).

We further understand that the agreement included an incentivisation sum of £200,000 in relation to section 7 (Gogar to Edinburgh Airport) and that agreement was reached to reset the programme baseline (revision 06) showing a revised completion date of 30 November 2008.

(1) Is our understanding of these matters correct?

I have no independent recollection/knowledge and would refer to the agreement itself

(2) Why was an incentivisation sum included in respect of section 7? Were there incentivisation sums or provisions in relation to the other sections?

As (1) above

(3) How confident were you around that time that the works would be completed by 30 November 2008? Did your views in that regard change (and, if so, when and why)?

I do not remember.

Events in 2008

29. TIE's Construction Director's Report for the meeting of TIE's 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 problems did congestion of services give rise to?

As recorded at the time and as noted in my earlier responses – congestion increases complexity and difficulty.

(2) Was congestion of services experienced throughout the on-road section? Were certain areas particularly bad (and, if so, which areas)?

I do not have detailed knowledge or memory to comment but contemporary records will record the incidence.

(3) Had congestion of services been adequately taken into account in drawing up the MUDFA programme and budget (and, if not, why not)?

^{nt}
I was sufficiently involved in the assessment to comment
^

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

I have no independent recollection/knowledge on this matter

30. A letter dated 14 February 2008 from Mr Malkin (CEC01125420) noted concerns in relation to Work Order Proposals (works were, apparently, proceeding on Confirmation of Verbal Instructions rather than Work Orders) and Changes (it being noted that in excess of 400 Change Orders were outstanding).

See also Mr Malkin's letter dated 19 March 2008 (CEC01520380) in which he stated that the introduction of the CVI/Record Sheets was an AMIS initiative *"designed to ensure an appropriate level of control, Project and Risk management was maintained given the ongoing failure of tie Limited to manage the MUDFA works in accordance with the agreed terms and conditions; primarily Work Ordering under Clause 8 and Change under Clause 46"*.

(1) It would be helpful if you could explain the issues, why they had arisen and how they were resolved?

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

31. An e-mail dated 19 February 2008 from Mr Malkin (CEC01457599) raised concerns in relation to the management of multiple interfaces and stakeholders. Mr Malkin stated, *"the real question for senior management is who is responsible for the planning and coordination of the precursor activities to support the MUDFA works on Revision 06. AMIS MUDFA has no control, authority or jurisdiction over SDS provier, CEC, Faber Maunsell, Lothian Buses, SUC's, Network Rail and other parties, and resolution on this particular and key issue would significantly help Carillion Utility Services on the utility specific diversion works and greatly improve our production outputs"*.

(1) What precursor activities were required to support the MUDFA works?

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

(2) What were the difficulties in relation to managing multiple interfaces and stakeholders?

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document. Difficulties would have been recorded at the time.

(3) Which organisation was responsible for managing the multiple interfaces and stakeholders?

This would have been set out in the Contract.

32. By letter dated 3 March 2008 (CEC01521318) Mr Malkin expressed a number of concerns in relation to the MUDFA works and Revision 06 of the MUDFA Programme.

Graeme Barclay replied by letter dated 5 March 2008 (CEC01530317).

Mr Malkin, in turn, replied by letter dated 6 March 2008 (CEC01532028).

(1) What was your awareness of, and views on, the main issues in these letters?

I would have been aware at the time but have no independent recollection/knowledge to add,

33. By letter dated 11 March 2008 (CAR00003591) AMIS set out certain concerns in relation to the suitability and integrity of the MUDFA Schedule Four Rates and Prices on the basis that ten items listed in the letter had not been administered, managed and/or completed in accordance with the MUDFA contract terms and conditions.

It was further noted that these items *"will, if not comprehensively and proactively managed by tie Limited, result in Revision 06 of the Programme being compromised, rendering it unsustainable in the immediate future"*.

(1) What was your understanding of the purpose of that letter? What were your views on the matters in that letter?

I would have been aware of purpose and content at the time, which would seem to be efforts to move the programme on.

(2) What were your views around that time in relation to whether Revision 06 of the MUDFA Programme would require to be revised? Did your views in that regard change at any time (and, if so, when and why)?

I have no independent recollection/knowledge.

34. By e-mail dated 11 March 2008 (CEC01454004) Mr Casserly sent a draft covering letter for a Settlement Agreement (CEC01454005), Appendix A – Principles of MUDFA Commercial Agreement (CEC01454008), Appendix B - MUDFA Contractor Incentivisation Proposal (CEC01454009) and notes and assumptions for Rev 06 Programme Appendix C (CEC01454006).

The draft covering letter (CEC01454005) stated that AMIS were entitled to a settlement sum of £991,142 up to 30.9.07 through being unable to meet their contractual obligations as a result of:

- Interpretation issue related to the application of PCS and progressing to Construction Services.
- Political delay to the commencement of the works.
- Delay in Issue for Construction (IFC) designs from tie/SDS provider.

The draft covering letter noted (page 2, last bullet point) that the existing incentivisation mechanism within the MUDFA agreement was inappropriate and that a revised incentivisation agreement had been reached which would be formally incorporated within the MUDFA contract as a replacement for the existing clause 48 mechanism.

(1) For the avoidance of doubt, what was the “interpretation issue” relating to the application of PCS and progressing to Construction Services?

See previous answers on the subject of PCS

(2) Broadly, to what extent did each of the three factors noted in the bullet points above cause or contribute to the delay and difficulties e.g. were all three factors of equal importance or did one or more have a greater causative effect?

I couldn't say

35. 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?

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

36. An e-mail dated 1 April 2008 from Graeme Barclay (CEC01456006) included a draft summary for reporting purposes and noted slippage in the MUDFA Rev 06 Programme.

Mr Barclay stated, *“Works are now progressing on 6no front, these being Constitution (enabling), Leith Walk (Foot of the Walk to McDonald rd), St Andrew square (East side), Princes st, Shandwick Place and Gyle ... Progression of the works has not been in line with the rev 06 programme, but a significant reduction in previous slippage has been achieved in this period ... However, proposed recovery*

programme demands an increasing output, in excess of current requirements of rev 06. This still needs to be addressed by AMIS and action plan to identify contingency measures requires further review by MUDFA team. Sections of concern are at Foot of Walk and St Andrews square, where outputs are noticeably below other areas and programme needs ... [a deficiency of personnel was noted] ... Discussions with AMIS ongoing to develop recovery programme as a matter of urgency. Continual review of resource demands essential as increasing number of work fronts commence ... Overall programme slippage is 4 weeks from current rev 06 completion date".

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

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

37. A letter dated 9 April 2008 from Mr Barclay to Mr Malkin (CEC00217639) noted that an agreement had been reached to settle AMIS' claim for delay and disruption up to 30 September 2007 at £991,142.95.

The letter included Appendix A – Principles of MUDFA Commercial Agreement, Appendix B – MUDFA Contractor Incentivisation Proposal and Appendix C – Programme Rev 06 Final Notes and Assumptions.

(1) Is our understanding of matters as set out above correct? Do you have any comments on the agreement or the matters in the appendices?

See previous answers on this subject.

(2) Appendix C, Notes/Assumptions to Programme Rev 06 Final, item 8, stated that the construction duration had been derived from an estimated total of 35,365 linear metres of utilities diversions. How and by whom had that estimate been arrived at? How confident were you that it was accurate?

I do not recall.

38. 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 4 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 what was reported above accord with your general understanding at the time?

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

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

See (1) above

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

See above

(4) To what extent was that two weeks delay dependent on the recovery plan for the MUDFA works being successful?

See above

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

I don't recall.

(6) With the benefit of hindsight, do you consider that any belief around this time that the works would be completed in accordance with the revised programme (i.e. by the end of 2008) was reasonable given (i) the delays and difficulties experienced to date, (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 or were just about to

begin, and (v) the success of the proposed recovery plan was unknown?

Difficult to say as the incidence of issues and ability to resolve may have improved but clearly there were obvious risks.

39. TIE's Construction Director's Report for the meeting of the 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?

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

40. Infraco contract close between TIE and the Bilfinger Siemens Consortium took place on 14 and 15 May 2008, as part of which a number of contracts were signed. What was your understanding of the following matters at contract close:

(1) When the utilities diversions would be completed?

I have no independent recollection/knowledge. See contemporary records

(2) Whether the utilities diversions would be completed before the infrastructure works commenced?

I have no independent recollection/knowledge. See contemporary records

(3) To what extent were the above matters discussed with TIE prior to Infraco contract close?

I have no independent recollection/knowledge. See contemporary records

41. TIE's 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.

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

I have no independent recollection/knowledge as to the content of/meaning of this document, other than the express words set out in the document.

42. By letter dated 16 June 2008 (**CAR00000022**) Graeme Barclay formally granted Carillion an Extension of Time of the substantial completion date to 28 November 2008.

(1) How confident were you around that time that the MUDFA works would be substantially complete by that date?

I don't recall.

43. An e-mail dated 19 June 2008 (**TIE00141448**) from Roddy Aves, Carillion, noted his concerns that TIE were expecting Carillion to commence the enabling works in many locations the following week but TIE had not issued the necessary paperwork to allow that to happen.

An e-mail dated 25 June 2006 from you (**CEC01346377**) noted that the draft of Rev 07 of the Programme, *"has moved from the draft a few weeks ago due to late receipt of Enabling works details and then the growth in scope shown therein. This results in a further programme slippage in certain key areas, namely, Haymarket"*.

(1) What Enabling works still required to be carried out and where around that time? Why had these works not been carried out earlier?

As I am the author of the document, my understanding is that what I wrote is correct. I have nothing to add to the express text and I'm not in possession of any contemporary records to assist.

(2) Did TIE delay in providing Carillion with necessary paperwork in relation to the Enabling Works (and, if so, why)?

I do not recall and was not managing the contract.

(3) Did any delay in carrying out the Enabling Works delay the carrying out and/or completion of the MUDFA works?

I do not recall and was not managing the contract.

44. E-mails between Steven Bell and you in June 2008 noted discussions in relation to a MUDFA Rev 07 Programme.

Your e-mail dated 25 June 2008 (**CEC01346377**) noted that there were a number of programme risks remaining, including *"delay in drawing issue, growth in work scope and TM restrictions"*.

An e-mail dated 30 June 2008 from Keith Gourlay, Carillion, noted certain MUDFA Commercial Issues/Concerns (CEC01291405).

In an e-mail dated 6 July 2008 to you (CEC01342171), Keith Gourlay noted "Overall I maintain my view that MUDFA continues to operate under a lastminute.com ethos". You forwarded that e-mail to Steven Bell and noted "the dilemma we have in respect of programme delivery versus contract compliance".

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

As I am the author of the one document, my understanding is that what I wrote is correct. I have nothing to add to the express text

(2) What did you understand Mr Gourlay to mean by his comment that MUDFA continues to operate under a "lastminute.com" ethos?

See above – information not supplied in sufficient time

(3) What was the dilemma between "programme delivery versus contract compliance"? Why had the dilemma arisen?

See above – trying to progress delivery without the requisite information to assess programme and cost risk

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

The minutes (CEC01053601) noted that Susan Clark 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 was 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).

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

I have no independent recollection/knowledge as to the content of/meaning of this document.

(2) Were you worried about progress?

See previous comments

46. We note a Proposed Plan for Achieving Contract Completion dated September 2008 (CAR00000250).

(1) Was the plan implemented? Was it successful?

I have no independent recollection/knowledge – contemporary records will record.

By e-mail dated 9 September 2008 (CEC01139799) Graham Christie, Carillion, sent a draft proposal for demonstrating the adequacy of the previous Works completed to date (CEC01139800). The draft proposal noted that the quality assurance system previously set up on the MUDFA contract was largely based on a monitoring regime which did not require written evidence of inspections carried out and that a new regime had been instigated which required documented evidence of inspections going forward.

It was also noted that, in the past, frequent inspections of the works had been completed by Carillion and TIE staff, with random inspections by SUCs and CEC, however, only a limited amount of these inspections had been documented and, generally, the inspections were completed without a record being kept.

(1) Were you aware that, in general, written records were not kept of inspections? Was that usual in the utilities industry?

I have no independent recollection/knowledge.

(2) Did that cause any problems?

I have no independent recollection/knowledge

(3) Were written records of inspections introduced?

I have no independent recollection/knowledge

47. TIE's MUDFA Contract Review Report for period 6 (18.8.08 to 14.9.08) (CEC01068356) contained an Appendix 3, Performance Measures (page 32) which noted delay in completing the planned metreage in the various sections. 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).

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) By way of overview, what utilities diversion works (and in which sections) were being undertaken around this time?

I have no independent recollection/knowledge

(2) What were the main reasons for the slow progress?

I have no independent recollection knowledge – contemporary records will record.

(3) To what extent could and should these difficulties have been foreseen?

Previous performance should be used to inform future performance and may well have been .

(4) Were there issues around management direction and control from Carillion?

Any issues would have been recorded at the time – I have no recollection.

48. In an e-mail dated 14 October 2010, Without Prejudice proposals (**CAR00000305**), you noted that it was important that TIE recognised the current contractual position in respect of *“failure to administer Work Orders, inadequate design detail and definition, varied TM and stakeholder requirements, magnitude of change and entitlement to Extension of Time”*.

(1) It would be helpful if you could explain these issues and the problems they created?

I have nothing to add to the express text and previous answers to the Inquiry.

(2) What are your comments on the suggestion by Mr Bell in his e-mail dated 11 October (in the same chain) that *“Carillion bear culpability in terms of the management changes necessary to ensure the correct leadership and the areas of rework/delay that has resulted in reprogramming e.g. Lothian Road, Leith Walk)”*?

I assume that this was Mr Bells view at the time.

49. 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.

(1) What are your comments on these matters including, in particular, what was noted in relation to the design being incomplete and there being many utilities that were unforeseen, congested and at shallower depths than permitted etc?

I have nothing further to add.

(2) The e-mail noted that the latest review of progress against programme gave a forecast end date of November 2009. Earlier in 2008 it had been anticipated that the MUDFA works would be completed by the end of 2008. With the benefit of hindsight, why was that forecast so far out?

I would presume its due the continued incidence of matters causing delay which were felt would be lessened in number and/or impact.

(3) Approximately when did you first come to the view that the MUDFA works would

not be completed by the end of 2008?

I don't recall.

50. In an e-mail dated 25 November 2008 (**CEC01162082**) you noted that significant delays to programme continued to be experienced as a consequence of:

- Delays in design issue.
- TM and Stakeholder restrictions.
- Growth and change in work scope.
- Delay in TQ resolution.
- Inadequate tie leadership and project management.

An agreement had been reached in October 2008 (following a meeting between Roger Robinson and Willie Gallagher) which included the following principles, namely:

- Adoption of rev 7.09 programme, with an extension of the Longstop Date.
- Settlement of commercial disputes up to the end of September 2008, with payment up to £1.2m now and £800,000 against future milestones.

You further noted that Carillion had made changes to their team to improve delivery and requested that Mr Casserly and his commercial be removed and replaced with an "independent" team to administer the commercial framework of the contract.

(1) It would be helpful if you could explain the main points in your e-mail?

I have nothing to add to the express text and previous answers to the Inquiry.

(2) What changes had been made by Carillion and why?

I don't recall specifically around this time but AMIS/Carillion did make changes contract management team at certain times in the programme.

51. By letter dated 8 December 2008 (**CEC01200503**) Steve Beattie, Project Director, Carillion, enclosed a high level overview of draft Programme Rev 08, with a revised completion date of 16 October 2009, and sought an Extension of Time.

See also Graeme Barclay's letters dated 17 December (**CEC01126645**) and 19 December 2008 (**CEC01126703**) (Extension of Time for Completion) and 16 December 2008 (Weekly Progress Reports) (**CAR00000558**).

(1) What were your views around that time as to why a further EOT was necessary?

I have no independent recollection/knowledge as to the content of this document, other than the express words set out in the document.

(2) How confident were you that the MUDFA works would be completed by the suggested new completion date?

I don't recall.

Events in 2009

52. By letter dated 27 January 2009 (**CAR00000073**) (Weekly Progress Reports) Steve Beattie made a number of points including:

- The failings throughout the PCS phase had led to the inability of Carillion to provide a programme as contemplated in PCS (page 1).
- There had been in excess of 2,046 items of change to date (excluding re-measurable TQ's and TQ's raised in cost recoverable works such as the Enabling works), *"predominantly due to inadequate tie utility diversions and traffic management design and process"* (page 2, last para).

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

I have no independent recollection/knowledge as to the content of/meaning of this document and nothing more to add to answers already provided to the Inquiry.

(2) Do you have any other comments on Mr Beattie's letter?

No

53. In an e-mail dated 8 February 2009 to Dennis Murray, TIE (**CEC00941273**), you noted that at a meeting in November 2008 there had been an acceptance that the project had not been managed and administered in accordance with the contract provisions, that the options were either strict compliance with the contract or a more pragmatic approach that better reflected the realities and challenges facing both parties, that TIE had stated their preference was for the latter option and that that was possible with a change to the evaluation model but that TIE had, apparently, recently rejected that proposal.

See also your e-mails dated 11 February 2009 (**CEC00941335**) and 1 March 2009 (**CEC00943300**) in that regard.

(1) It would be helpful if you could explain these matters including what, if any, resolution was reached?

Carillion were looking for a way to progress the programme and the evaluation (re-measurement) of the works recognising all the delays and disruption matters being experienced. I have nothing to add to the express text.
From memory no resolution was reached.

54. In an e-mail dated 25 February 2009 (**CEC01010661**) you noted ongoing problems including that *"despite our efforts to bring our organisations together to work collaboratively we continue to experience a very adversarial/blame culture from tie, whilst tie still fail to administer the contract correctly"*.

Under issue 6 of your e-mail, Programme to Completion and EOT, you noted that

current indications were that the programme would run through to September, which was *“based on the current predicted start date of certain critical work areas – the commencement of which are determined by: Drwg issue, Works Order issue and Traffic Management restrictions”*.

(1) It would be helpful if you could explain the main points in your e-mail?

I have nothing to add to the express text which was contemporary record and view at that time.

55. By agreement dated 19 March 2009 (**CAR00000243**) TIE agreed to pay Carillion £1.2m in relation to delay and disruption between 1 October 2007 and 30 September 2008.

Appendix 3 set out the milestones which, if met, would result in additional payments totalling £800,000.

(1) Do you have any comments on that agreement?

No, other than it was an attempt by both parties to resolve some historic issues and move forward with the programme.

(2) Were the milestones met and were the additional payments were made (see e.g. a schedule Agreement of Contentious Items as at 16 December 2009 which suggests that an incentivisation payment of £680,000 was agreed, **CEC00583586**).

This should be a matter of record.

56. By letter dated 24 March 2009 (**CAR00000560**) Steven Bell advised Steve Beattie, Carillion, that following agreement of the MUDFA Revision 7.9 Programme, TIE formally granted an extension of time to the substantial completion of the MUDFA works (to 1 April 2009) and the Longstop Date (to 3 August 2009).

(1) What was the purpose and effect of granting that extension of time?

As provided for under the Contract.

(2) How confident were you at that time that the MUDFA works would be substantially complete by 1 April 2009 and fully complete by 3 August 2009?

I don't recall.

57. In an e-mail dated 15 May 2009 (**CAR00000434**) you set out what had been discussed at a recent meeting with TIE and noted that now that TIE had concluded that the “cost model” was not the way forward parties required to choose between *“contract adherence or agreement of lump sum”*, which decision would influence how the remainder of the contract was delivered.

(1) It would be helpful if you could explain what this related to i.e. did it relate to

payment for works under the MUDFA contract and/or to Carillion's claim for delay and disruption after 30 September 2008?

From recollection and reference to documents supplied it related to the evaluation of works under the contract including delay and disruption.

(2) How (and when) were matters resolved?

They weren't resolved during my time involved in the Contract.

58. 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.

In relation to utilities, all of the "off-road" section were now complete (i.e. from Haymarket to Gogar, with the exception of Gogar to the Airport), namely, sections: 2a (Haymarket to Roseburn Junction); 5a (Roseburn Junction to Balgreen Road); 5b (Balgreen Road to Edinburgh Park); 5c (Edinburgh Park to Gogarburn); and 6 (depot).

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

I have no independent recollection/knowledge as to the content of document. No comments.

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

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

In relation to utilities, Steven 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.

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

I have no independent recollection/knowledge as to the content of document. No comments.

60. By letter dated 25 August 2009 (CEC00846312) Carillion advised that due to "numerous items of additional works and delaying events" a Further Extension of Time for Completion was required to 14 December 2009.

By e-mail dated 4 September 2009 (CEC00790176) Philip Kolon of Carillion sent a "Schedule 4 Rates and Prices Submission Road Map" (CEC00790177) (in support of Carillion's claim for a further Extension of Time).

(1) Do you have any comments on these documents including, for example, the comment in the Road Map (page 2) that with in excess of circa 1,600 technical Queries and 3,700 Change items raised to date, and based on projections, Carillion anticipated a Final Account Value in excess of £70 million?

No comments – assume this is a contemporary record.

61. There was a joint meeting of the Tram Project Board and TIE Board on 23 September 2009.

Slides for the meeting (CEC00849011) gave an update on the Utilities work. The Carillion works were 97% complete (Haymarket was forecast to be complete at the end of November, excluding gas abandonments; York Place – Picardy Place required a technical solution; Leith Walk gas and water decommissioning was to be complete by November).

The Airport works by Farrans were well advanced with completion forecast by mid-October.

In Tower Place – Newhaven, tenders had been returned and were under evaluation, with works expected to commence in October.

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

I have no independent recollection/knowledge as to the content of document. No comments.

62. In an e-mail dated 29 October 2009 (CAR00000090) you noted that there appeared to be a growing desire on TIE's part both for an early exit and to get the final account agreed, which was indicated by a number of matters including "settlements achieved to date on key contentions (all at levels above our 'value' and our 'most likely')".

(1) What was the general approach of TIE in discussions around this time? Had TIE's approach changed and, if so, in what way?

I remember a renewed impetus to close out matters – perhaps because Carillion works were nearing completion.

- (2) Can you remember the issues in respect of which settlements had been achieved at levels above Carillion’s “value” and “most likely” figures?

I don’t recall. They may be recorded at the time.

63. In December 2009/January 2010 TIE and Carillion entered into a Minute of Agreement (the “Exit Agreement”) (CAR00000145 is a signed version; for legible appendices, see CAR00000429).

- (1) To what extent, if at all, were you involved in negotiating or drafting that agreement?

I remember advising on the Agreement

- (2) What, in general, were your views on the agreement?

It seemed pragmatic at the time

- (3) How were any outstanding claims (by both Carillion and TIE) dealt with?

I don’t recall and my involvement in the project ceased around this time.

64. We understand that you stopped working on the tram project in December 2009.

- (1) For completeness, please confirm when and why you stopped working on the tram project?

As recorded in first question, I was not dedicated to the contract and my involvement ceased around Dec 09/Jan 10 and resolution of any matters was passed to others.

- (2) What was your understanding at that time of:

- the extent to which the utilities diversion works were complete,
- the works (and in which sections) that were outstanding, and
- within approximately what timescale any outstanding utilities works would be completed (e.g. in months or years)?

I don’t recall but these would have been recorded at the time.

The Settlement Agreements between TIE and Carillion

65. We understand that various claims were made by Carillion for delay and disruption and that settlement agreements were entered into.

We are aware, for example, of the following settlement agreements:

- An agreement reached in December 2007, and formally executed in April 2008 (per Mr Barclay's letter dated 9 April 2008, **CEC00217639**) for £991,142.95 in relation to delay and disruption up to 30 September 2007 (which sum included an incentivisation payment for section 7 of £200,000).
- An agreement dated March 2009 for £1.2 million (**CAR00000243**) in respect of delay and disruption between 1 October 2007 and 30 September 2008.
- An agreement dated 10 November 2010 for £5,824,000 (**TIE00094413**) (which, presumably, included a sum in relation to delay and disruption from 1 October 2008 onwards).

(1) Is our understanding of the main settlement agreements as set out above correct?

I believe so but I was only involved with the first 2.

(2) Do you have any comments on the agreements?

No

Final Thoughts

66. 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)?

All projects experience change and delays but the challenges of large scale utilities works in the heart of the city - with all the associated access constraints this imposes – made the MUDFA contract a very challenging project – especially where linked to a separate follow on Infracore contract.

(2) Do you have any comments, with the benefit of hindsight, on how the MUDFA difficulties and delays might have been avoided or reduced or on how the MUDFA contract and works could have been better managed?

With hindsight the project would have benefited from greater design maturity before commencement and a better understanding of the access and possession constraints that would impact the programme.

This, linked with a more collaborative approach to issue resolution would have help mitigate both the causes and consequences of difficulties and delays.

(3) 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?

No

ANNEX A - QUESTIONNAIRE

Contact details

- Please let us have your full name, address, email and telephone number:

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Your employment with Carillion Utility Services Limited

- What positions did you occupy with Carillion Utility Services Limited and what were the dates you occupied these positions?

Commercial Director April 2008 – December 2009

- What were the main functions of your position?

Responsible for commercial, procurement and bid management functions, both pre and post contract

- What were your main functions in relation to the Edinburgh Tram Project?

Director with responsibility for pre and post contract commercial activities, delivered by a dedicated project team, and principle client relationship role on behalf of the business.

Your employment with Alfred McAlpine Infrastructure Services Limited

- What positions did you occupy with Alfred McAlpine Infrastructure Services Limited and what were the dates you occupied these positions?

Commercial Director Jan 2005 – April 2008

- What were the main functions of your position?

As above but breath encompassed other market sectors

- What were your main functions in relation to the Edinburgh Tram Project?

As above

- Were there problems in relation to the company's work in relation to the Edinburgh Tram Project at the point the shares were acquired by the Carillion Group? If so, what were the nature of these?

The Project was experiencing a number of cost and programme challenges as there was a high incidence of change in both scope and programme constraints however this was consistent with the nature of the work being carried out.

Design and Information

- What was the Contractor's role in finalising the design for diversion of utilities?

The contractor had no design responsibility for permanent works. Contractor supported optioneering activity by advising on build ability, programme and cost of proposed designs.

- To what extent was the design for the diversion of utilities incomplete at the time the work was to commence? Had the utilities that were to be diverted been fully identified at that time? Can you give any examples?

Design was incomplete at contract commencement. Indicative scope and volumes were included at tender. The contract mechanism provided for works packages to be scoped and agreed with the contractor before each package was instructed to proceed. This process involved identification of actual services and their locations, then agreement with statutory undertakers about the works required. The Client (TIE) was responsible for this process.

- What impact did the delay in finalising the design have on the work diverting utilities (including the volume and quality of work, delays and costs)? Were any assessments prepared of the extent to which delay in completing utility works arose from delay in finalising design? When did it become apparent that the contract works could not be completed on time?

As stated above, the actual work to be carried out was confirmed/instructed in work packages issued by sections of the route. Then, once work commenced, the actual assets uncovered - their line, level and final position was often subject to further change and design verification and agreement with the SU's.

Delays in works package issue and then subsequent delays associated with actual conditions found, and constraints imposed (i.e Traffic Management) meant delays to agreed contract programme both at section level and overall completion date. There was float between expected completion date and the Longstop date.

Extension of Time requests and claims for additional payment were raised on a regular basis (as required by the contract) The extension of time requests and awards were assessments of that delay – both at package, section and overall programme level. If 'completed on time' in the question refers to the 'Longstop date' I can't recall at what stage this was identified as being in jeopardy but the contract correspondence will confirm this – probably late 2008/early 2009.

- What difficulties arose in relation to the quality and accuracy of the design for the diversion of utilities?

As indicated above, the actual location, number and condition of assets varied significantly from that envisaged at tender as a consequence works packages were issued late and adequacy of information was a challenge.

This was covered in correspondence and contract meetings on a frequent basis.

- What impact did the quality and accuracy of the design have on the work diverting utilities (including the volume and quality of work, delays and costs)? Were any assessments prepared of the extent to which delay in completing utility works arose from problems with the quality and accuracy of the design?

As above, assessments were made on a frequent basis as the contract progressed. These were recorded in correspondence and meetings.

- To what extent were there changes in the design of the tram infrastructure or the utilities diversions during the works carried out by Alfred McAlpine / Carillion and what was the effect of such changes?

Refer above

- To what extent was information required by the contractor provided timeously by TIE? If it was not provided on time, what information was concerned and what was the effect?

As above. The contract mechanism was to release agreed work packages to allow the contractor to proceed. Delays were experienced throughout the contract, with late or inadequate work package information with subsequent delays arising from actual conditions found on site and the need for further change requests.

Ground surveys

- How comprehensive and appropriate were the ground surveys conducted on the proposed tram route in identifying the location of utilities? What surveys had been conducted and how does the extent and type of survey compare with other projects of a similar nature?

I'm not aware of the extent carried out by TIE or the SU's before commencement. During the contract the contractor was instructed on an ad hoc basis to carry out advance trail hole survey work before works packages were agreed.

Difficult to say whether this was sufficient or comparable but the contractor did propose that more trail hole and advance investigation work should be carried out especially in areas where there was expected to be greater complexity.

- What impact did the adequacy of the ground surveys have on the work diverting utilities (including the volume of work to be undertaken, delays and costs)?

As above.

- What technology existed in the period from 2005 to 2014 to identify the location of underground utility pipes and cables and what use was made of that technology on this project? If full use was not made of all available technology what was the reason for that?

I don't feel sufficiently informed to answer but from memory the technology used was consistent with industry practise.

- What technology exists today that wasn't available then?

I believe that the quality of ground penetrating radar is better today.

Statutory utility companies

- How complete and accurate were the records maintained by the statutory utility companies of the nature and location of utilities? Where any shortcomings in the records anticipated either by Alfred McAlpine / Carillion or TIE? If so, what measures (if any) were taken to address this?

As above, the actual nature and location of utilities varied from that anticipated. This scenario was catered for in the contract model used, with work packages being issued by TIE as work proceeds.

- What impact did the adequacy of the records have on the work diverting utilities (including the volume of work to be undertaken, delays and costs)?

Each work package was different in terms of impact. The impact of inadequate or incorrect records resulted in more services being diverted and the programme for each area being extended.

The issue of record accuracy and its impact on the works was subject of regular written communication between the contractor and TIE, supported by frequent scope and programme meetings

- How helpful were the statutory utility companies in assisting with the process for diverting utilities? In particular, to what extent were they involved in the design of diversions or giving approvals for works and, where they did have an involvement, did they facilitate or impede progress?

The utility companies engaged directly with TIE to agree matters of scope and design. From memory they were supportive in resolving issues arising.

- How helpful or otherwise were the City of Edinburgh Council in dealing with applications and providing the necessary consents?

I don't have a view on this as not directly involved.

Commencement of the works

- Were there factors which resulted in a delay in commencement of the works and, of so, what were they and what was the extent of the delay? Did additional cost arise from that delay and how were it addressed?

Commencement of works was delayed due to non-availability of work packages. The programme and cost impact of this delay was agreed between the contractor and TIE and confirmed in correspondence at the time.

Other factors

- What other factors resulted in an increase in the volume of work to be undertaken, the delay in completion of, and the overall cost of the diversion of utilities (e.g. planning issues, traffic management issues, political issues, etc.)?

As stated above the nature and extent of utility diversions varied from that included at tender stage. The consequences of change impacted on access and traffic management restrictions thereby effecting construction methodology. Again this was included in contract meetings and correspondence at the time.

- What other factors (if any) resulted in delays to the diversion works?

Delays in works instructions from TIE.

Quality of work

- Do you consider that Carillion Utility Services Limited (and before that Alfred McAlpine Infrastructure Services Limited) were appropriately staffed to fulfil the work diverting the utilities?

Yes

- Do you consider that the work undertaken on the utilities was of an appropriate standard and what do you consider to be the main reasons for any deficiencies?

Yes. As with any similar work scope there will be issues associated with defects and snagging but I don't believe there was anything exceptional on the project. The very nature of wholesale diversions of utilities in an existing highway environment presents challenges associated with complex backfill and reinstatement arrangements as you work around exposed utilities trying to minimise impact on surrounding areas.

- How were issues with defective pieces of work handled?

Any defective work was identified by TIE and rectification instructed, then carried out by the contractor.

Contractual issues

- Did the terms of the MUDFA contract pose any particular challenges and, if so, what?

The concept of agreeing works orders before commencement of an activity was appropriate for the nature of the works as it allowed emerging scope to be properly assessed and reflected in both programme and cost. However, as the extent of change was significant, both pre and post works order issue, forecasting time and cost impacts of instructed work was challenging for both the contractor and TIE.

- Were Alfred McAlpine / Carillion content with the basis for payment provided in the contract? If not, why not and what did they seek to do to address the issue?

The basis of payment in the contract was fine. The challenge that arose was the evaluation of change and emerging scope with its wider impacts on the programme. This was subject to numerous correspondence regarding the contentions that arose.

- How do you consider that changes to work orders were handled?

Changes to scope were handled in a reactive way as work progressed to enable progress to be maintained. Programme and cost impacts of 'change' were more difficult to assess and agree consequently handling became more difficult especially when budget and completion dates were under pressure.

- How were the payment of sums due under the MUDFA contract handled?

The contractor submitted monthly application for payment, which was assessed by TIE and then discussed with the contractor to enable a better understanding of differences. Where possible these were resolved and included and if not were subject to regular 'contentious items' meetings. Ultimate payment decision was TIE's.

- Do you consider that disputes over the contract were handled appropriately?

Initially yes, but once the extent of change in cost and programme became evident, opinions and attitudes became entrenched with no catalyst to bring parties together to resolve.

- How do you consider that the termination of the contract and agreement of sums due were handled?

This phase of the contract seemed to be handled well by both parties.

- What additional payments were made by TIE to Alfred McAlpine / Carillion and what was the basis for these payments?

As far as I'm aware, all payments received were evaluated and made in accordance with the contract. Full payment details will be available in project files. I was not party to resolution of the final account and final sums agreed and paid.

Relational matters

- At what stage did it become apparent that the work diverting utilities would not be completed on schedule and in time for commencement the infrastructure works?

As with an earlier question – if 'completed on schedule' means by the Longstop Date then I can't be certain when this was identified as being in jeopardy, but it was probably late 2008/early 2009. Full details will be in the contract correspondence.

- What steps, if any, were agreed and taken by TIE and the Contractor to manage the delay and its consequential impact on the building of the tram infrastructure?

A number of steps were taken to mitigate programme delays:

- Advance works on trial holes and investigation
- Additional resource
- Joint planning session
- Prioritisation of complex works areas
- Alternative specifications
- Joint traffic management meetings

- Do you consider that relations between TIE and the Contractor were conducted professionally and in good faith? Please explain any particular issues.

Generally yes. The tension came when the risk to budget and completion date became evident and then positions became more polarised.

- Do you consider that the parties had an understanding of an sought to apply the contract between them?

Yes – the challenge was the assessment of change and its impact on cost and time.

- What impact did any delay in completion of the utility diversion work have on the work under the infrastructure contract?

I'm not in position to comment as I wasn't aware of the terms of the Infrastructure contract.

- How did Carillion manage the relationship with the infrastructure contractor to minimise the impact on it of any delay in completion of the utility diversion work?

I'm not aware of any direct contact between the parties

Mediation and termination of contract

- How did the mediation in 2010 come about? Who suggested it and what events precipitated it?

I was not involved in the contract by this time so unable to comment.

- On what basis was the final account figure agreed in the course of the mediation?

I was not involved in the contract by this time so unable to comment.

Internal management

- What internal processes did the Contractor put in place to monitor its performance of the work (e.g. working groups, regular meetings, etc.)?

Weekly and monthly, planning and progress reports and meetings.

Impact of the diversion of utilities on the Inquiry's terms of reference

- To what extent did the work undertaken on the diversion of utilities contribute to the delay in completion, the increase in cost and the reduction of scope of the tram network?

Not in a position to comment.

- What do you consider were the major flaws in the conduct of the project and what could/should have been done differently?

As stated above, the challenges arose when the extent of change became evident and opinions became polarised, with both Parties seeking to protect their contractual position.

A more proactive and collaborative approach from the Parties would have improved relationships and led to greater clarity around programme risk and how best to mitigate it - together with appropriate recompense for the contractor.

There were attempts to achieve this, but ultimately the relationship was difficult and entrenched views were difficult to reconcile.

I confirm that the facts to which I attest in this witness statement, consisting of this and the preceding 40 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..... 30th JUNE 2017