

## THE EDINBURGH TRAM INQUIRY

### Witness Statement of Scott McFadzen

Statement taken by Alistair Turnbull.

Statement:

### Introduction

1. My full name is George Scott McFadzen. I am 59 years of age and was born on [REDACTED]. My contact details are known to the Inquiry. I have supplied my full CV to the Inquiry. I am a member of the Institution of Civil Engineers (ICE) and a Supervising Civil Engineer approved by the ICE Graduate Training Scheme.
2. My main experience is in major infrastructure projects. I have over 35 years' experience working in a variety of sectors including rail, roads, bridges and concrete frame construction. I had no experience in tram or light rail work prior to the Edinburgh Tram Project but I had experience in heavy rail, road works and streetscape works, which are similar. I was involved on a job called DBFO1 in Northern Ireland, which was the west link through the middle of Belfast. That was very much a city job which involved design and build, again similar to that of the Edinburgh Tram Network (ETN).
3. My procurement experience consists of various roads and bridges and sewerage tenders and also an unusual sewerage tender in Hull which was concerned with urban wastewater. All of these involved considerable civil engineering, mechanical and electrical works. All the jobs are listed on my CV.

4. The role I have played on projects has differed. I was a Bid Manager on Major Projects at about the time the role became “commonplace”, and I have been Project Manager and Project Director, depending on what title was preferred. On the Lockerbie (M74) job I started as Project Manager then moved on to Contracts Manager for both Lockerbie and Ecclefechan. At Hull I was Engineering Director, but this was effectively Bid Manager. At Fenwick I was in a Director role, but I was on site almost 100% of my time to ensure completion on time.
5. I joined Bilfinger Berger at the start of 2006 having worked for their Joint Venture partner Mowlem on a Tender for the Kincardine Bridge at the end of 2005. When Mowlem pulled out of the Joint Venture Bilfinger offered me a job and I joined them in January 2006 as Project Director. My remit was business development, bid management and, ultimately, project management. I never worked exclusively on the Edinburgh Tram Project. There was a long period during which it was my main job. At the start of my term with Bilfinger, however, we still thought we might win Kincardine Bridge. During my time with Bilfinger there were other Tenders that we picked up: road jobs in Ireland, the M80 in Scotland.
6. I was heavily involved in the pre-qualification process for the Edinburgh Tram and indeed in persuading Bilfinger that it was worth going for. I was involved with pre-qualification, bid management and then with the mobilisation contract which preceded the main contract.
7. I reported to Richard Walker, Director of Bilfinger Berger UK. At the start, I was recruiting a few people for Bilfinger. I was the only person involved until I recruited an administration person, a commercial person and a design person. For the pre-qualification I was getting information from our Head Office in Wiesbaden, Germany. Initially, there were just three or four of us in a small serviced office. At times colleagues from Wiesbaden would come in and help for a few weeks or months. Once we had received Tender Documents an estimator and a planner were recruited. They all reported to me.

8. The estimator was Sandy Robertson, the planner was Steve Sharpe, the Commercial Manager was Tom Murray and the engineering manager was David Taylor. There were also various people from Wiesbaden: Bernd Kasuschke was there for a while and an estimator called Markus Muller.
9. I left the Tram Project to work on the M80 job in August 2008. The tram contract had been awarded in May of that year. Colin Brady took over as Project Director from me in June. We had about two month's handover. I did not completely finish with the project at this time. I returned as people were contacting me about things but I was not there as much. I was also involved in Bilfinger Berger UK meetings at which Edinburgh tram issues were coming up.
10. I would describe the relationship between BB UK and BB Germany as normal. It was necessary to make contact to get things signed off at various stages in the process, and it was necessary to get authority to submit pre-qualifications. This was normal procedure. There were no unusual difficulties between the UK and Germany. There were occasionally "people difficulties", but these are found everywhere in business. There was nothing particularly significant.
11. Practically speaking, the pre-qualification, tender and project was normal work for us. There was perhaps more video conferencing than is ideal, but that can take place as it does in my current job between London and Rugby. Video conferencing between Edinburgh and Wiesbaden is not unusual.

### **The Tendering Phase of the Infraco Contract (2005 to October 2007)**

12. I note the Prior Information Notice that was published on 6 October 2005 (**CEC01792891**) and the Contract Notice published on 31 January 2006 (**CEC00208568**). I also note the Memorandum of Information and Pre-Qualification Questionnaire that was produced by TIE and dated 6 March 2006 (**CEC01781572**). Bilfinger Berger were pre-qualified as a civil works contractor and, as part of a joint venture with Morgan Est. Subsequently

Bilfinger/Morgan Est joined with Siemens in Consortium and, pre-qualified again. The Morgan Est relationship ran until October 2006 when Morgan Est withdrew as they were, by then, anticipating negotiating the M74 extension as a “single action” tender.

13. I am aware of the minutes of the meeting held on 7 June 2006 between TIE and BBSME (**CEC01800968**). These recorded that TIE’s intention was to issue the tender documents in late August/early September 2006, with tender return by the end of December, and a view to contract award by July 2007 and operational trams by the end of 2010 (**CEC01800968**, page 2). The minutes accurately record the documents and matters discussed.
14. There were things I thought quite unusual about TIE’s procurement strategy, in that I had not been involved in a novated design tender process before. TIE, however, did at least have a plan. We understood the plan that the designer was to be novated to us. There were some good things which did not come to pass, one being the strategy that SDS would complete the design before novation. This was good and bad insofar as it meant that there was a risk transfer and not what I would call a proper design and build. I proposed to Bilfinger Berger UK and Bilfinger Berger Germany to go for this project on the basis of the original strategy.
15. Our understanding at the time was that design would be completed and all necessary statutory approvals and consents would be obtained prior to the Infraco Contract award. That was the big selling point for us. The only design after the award of the Infraco Contract was to be little bits of redesign and improved design. Utility diversion works were to be completed prior to award of the Infraco Contract.
16. We did think the TIE procurement programme was going to be difficult e.g. to complete the design prior to award. One of the many flaws in the procurement process was that TIE were employing the designer to design to completion, i.e. to detailed design stage, but that some of the work which we needed to

bid for the job was not being progressed. TIE were getting into lots of detail on some parts of the scheme and hardly any, if anything at all, on other parts. We needed them to run two parallel design teams, one to complete the design for the award and the other to feed the bidders that would let us quantify, programme and assess the commercial risks. We did put this to TIE. I think that because they had Parsons Brinckerhoff on such a tight budget they could not commit to bringing in another team to feed the tenderers with information. I also think there were lots of relationship problems.

17. TIE's procurement programme was extended and extended. It ended up running until May 2008. This was caused by the design being late. The conditions of contract were a big part of this because they were bespoke and needed a lot of negotiation of terms, such as how change was to be dealt with. Dealing with change, in itself, became a big issue. As a result, the change procedures had to be good. We could also see that the utilities diversion contract, MUDFA, was not going according to plan and that this was going to run late. The complete design assumed completely diverted utilities and we could see it was just going to run on way beyond TIE's procurement programme date. I was heavily involved in all this. I understood and could see what was happening as I was in the "front line".
  
18. I note the letter dated 3 October 2006 (**CEC01794929**) from Andie Harper, TIE Tram Project Director which issued the Invitation to Negotiate (ITN) to BBSME. The date for submission of tenders was 9 January 2007. The date was realistic and achievable, as it is always possible to price a tender. However, if you only have basic information this then depends on the instructions to tenderers. As a result, it was not possible to submit a fully-compliant tender because when we looked at the documents and saw the status of the design we had to submit what I would describe as a very heavily qualified tender. We started with a large list of qualifications / clarifications and some of these were maintained right through this procurement process. The qualifications became Schedule Part 4 of the Infraco contract.

19. In the same letter (**CEC01794929**, page 2) Andie Harper noted that the employer's requirements were being checked against the contract and the ITN, and that an updated version of the requirements was expected to be re-issued before the end of October. I do not recall whether an updated version was issued, that will be a matter of record, but we were getting information all the time. When we got updated conditions of contract and updated Employer's Requirements it was not well organised. It was a sign of the chaos that was about to come. I had previous experience with Transport Scotland of the re-issue of employer's requirements, where this was done with tracked changes which were acknowledged. We did "kind of" get them like that from TIE but it was not well organised and the document management system was not good.
  
20. I am aware of a letter dated 13 October 2006 (**CEC01795260**) from Richard Walker on behalf of BBSME, which advised TIE that BBSME had a number of significant issues with the ITN. These were listed in a subsequent letter from Richard Walker dated 16 October (**CEC01795314**). I was working with Richard Walker on this. We were concerned that we could spend a lot of money bidding for the job and that it might not go ahead because of political and budgetary pressures. The letter addresses the absence of bid cost indemnity. We were looking for a guarantee that we would recover our bid costs if the process did not continue. We were also suspicious that the City of Edinburgh Council (CEC) had created this subsidiary company as a limited company. There is always a possibility that companies can just make their subsidiary companies insolvent, with bidders then left holding the costs. As a result, we sought guarantees. The ITN required an on demand performance bond. We thought that this was ridiculous. TIE required a 15% retention which was totally unacceptable to us.
  
21. The proposed contract was an unusual form. It was very unusual that a big project like this was not following a standard model such as NEC or FIDIC or ICE. The contract was bespoke and not very well thought out.

22. BBS (Morgan Est had withdrawn by this time) sought an extension of the period for submitting tender returns so they could get nearer to a compliant response to the ITN.
23. I am aware of an email from Geoff Gilbert to Richard Walker, Gary Dalton and Tim Hunter dated 23 October 2006 (**CEC01796317**) which had a list attached of proposed detailed design priorities (**CEC01796318**). The purpose of the list was to ask BB what we needed to bid for the job properly. I recognised that TIE needed to get on with the detailed design, but they also needed to be feeding design to the bidders as we were just not receiving sufficient design detail from Parsons Brinckerhoff. Everything on the list was a priority. It was a pretty comprehensive list and I do not recall anything missing from it. I think there was an email from me sent in response, but it may not be in your records. I do not have a copy of it.
24. I note my email dated 25 October 2006 (**CEC01795913** page 3) to Bob Dawson. It contained BBS' mark-up of the Infracore Contract and Schedules and attached a document (**CEC01795948**) highlighting the key issues for BBS arising from the ITN documents. It was marked up because it was a bespoke contract which was messy, and not in a standard form that was easy to understand. We would have done a mark-up anyway, however.
25. I do not particularly remember TIE's response to this, but there were many exchanges of emails and correspondence in which TIE claimed they did not understand why we had marked it up so heavily. I think that the ITN was issued to us to provide a marker. There was certainly an exchange of emails in which we intimated that we did not like TIE's conditions of contract and the response from them was to ask us for a mark-up. TIE thought we had marked it up heavily.
26. On 25 October 2006 an email was sent on my behalf by Roland Halliday to Bob Dawson of TIE (**CEC01823109**, page 2) with an attached document listing inconsistencies between sets of drawings and the Employer's

Requirements (**CEC01823110**). I am aware of a Witness Statement dated 18 April 2010 which I supplied for one of the adjudications which I think was Tower Place Bridge (**CEC00351749**). This statement set out what was wrong with the way in which the documents were issued.

27. Generally speaking, I think that the design process was not being organised or run well at that stage and I do not even think it was well resourced. This went back to my earlier observation that the requirements for tendering were different to those for finishing the detailed design.
28. I think Parsons Brinckerhoff thought they may be appointed as Programme Manager, and that that was their agenda. I also think that they thought they would not be novated to the winning Contractor., Occasionally we thought that Parsons Brinckerhoff did not believe that the Tram would ever be built and were just fee earning when they could. I could unkindly say they were probably putting some reasonably lightweight guys on it because they did not think it really mattered.
29. I am aware of TIE Notes of Meeting from the meetings between TIE and BBS on 8 and 22 November 2006 (**CEC01794528** and **TIE00078323**). I described the main issues for BBS in my Witness Statement of 18 April 2010 to which I have already referred (**CEC00351749**). These meetings dealt with fundamental issues. There were drawings that needed to be tendered on, and taken to the next level so we could price and programme. When we were doing design and build, we briefed the designer to design efficient structures. They would provide feedback as to, for example, whether the reinforcement was particularly high because of any elements of the design that were highly stressed or what the confidence level was on section depths. This was not done, however, where there was only an Approval in Principle (AIP). The AIP was just a drawing of form. This was why I thought PB needed to have a separate team to compare the AIP drawing, our drawing and the reinforcement content. In short, much of the information that we would have expected in a design and build just was not there.



30. I am aware that the agenda for the meeting on 22 November 2006 (CEC01823119) stated that the first item for discussion was "*Drawing Information*" including "*Inconsistencies . . . , Numbering System, AIP drawings, Relationship between Drawings and Pricing Schedules*". The AIP drawings were just one of the aspects of this. All we had were the AIP drawings, but there were numbering faults and inconsistencies which did not reflect well on PB or TIE. They had no organised drawing numbering system that they could issue to Tendering Contractors. November 2006 was the first sign that the design information in particular was a bit of a shambles.

## 2007

31. The main tender documents were submitted by BBS in 2007. We submitted the proposals on 12 January 2007. In May 2007 we submitted a price, and the consolidated proposals which included risk and a list of clarifications because we were not in a position to price everything. There was a Contract mark up submitted in July 2007, and a priced submission with clarifications in August 2007. A letter was sent on 24 August 2007 with a revised price. To the best of my recollection, and without seeing the records, these were all of the documents. I would add that we thought it very unusual to submit prices in May, and August. This was the start of the financial pressure that TIE were trying to put us under.
32. I am aware of the document produced by TIE in response to Transport Scotland queries entitled Infraco Initial Analysis and Updated Project Estimate dated 8 February 2007 which recorded that both Infraco Bidders were protecting their risk position pending receipt of more detailed design information and that there was 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 (ADS00017, pages 3-5). Much of this was down to whatever we put in our proposal of 12 January and I think we were absolutely clear on price and risk.

33. The same TIE Infraco Initial Analysis document (**ADS00017**) accurately reflected what BBS were thinking at the time. We were always trying to make sure we were not exposing ourselves to risk. If there was incomplete design we covered it in a clarification or if there were gaps in information, we used a provisional sum. When we used a provisional sum, it did not really matter whether it was realistic or not. We were trying to be realistic but we were in a competitive situation. If, for example, we were pricing a bridge with outline information only and where we thought the value would be about half a million pounds, we would use quarter of a million as the provisional sum. That is the real world. I think we were keeping the "moral high ground" on this in that we had requested another PB design team to feed our tender process and had asked TIE to put pressure on PB to increase resources to do the design or do it quicker.
34. In January 2007 TIE issued a document entitled Supplemental Instructions to Tenderers (**CEC01824070**). The intention was that after bids had been received on 12 January 2007 further dialogue and negotiation would take place with a view to the submission of final consolidated proposals on 16 April. I do not have good enough records to say when further information was received from TIE, but my recollection is that there was information flowing in between January and May.
35. The Supplemental Instructions used the phrase "*firm price and scope*" (**CEC01824070**, page 4). We certainly understood why TIE wanted a firm price and why it needed to be for the entire scope of the job. To enable a firm price and scope to be agreed they (TIE) needed to get the information flow organised: we were lacking a huge amount of information that we needed to produce a firm price.
36. The Supplemental Information indicated that the anticipated date for Infraco contract award was October 2007 (**CEC01824070**, page 7). I believe that the date had slipped to October because of delays to the SDS design and MUDFA. This was just general slippage. There was another developing

situation with delays to getting consents for building fixings for overhead line equipment, which was also contributing to the delay.

37. By January 2007, the proposed procurement programme was becoming more and more unachievable. BBS had seen what had been done by January 2007: if that level of achievement had been projected forwards, achieving contract award in October would be pretty difficult.
38. Final consolidated proposals were, I believe, submitted on 8 May 2007. They were not fully consolidated, but this was just one more step: the process went on through the summer of 2007. There would have been an agreed extension and there would have been an exchange of emails or letters on that.
39. The agenda for the meeting on 23 January 2007 (**CEC01789516** page 1) between TIE and BBS had as its first item the design programme for stage 2. My recollection is that Stage 2 was supposed to be the second and final stage of the tender. It is not unusual to have a two-stage tender. Normally, some of the tenderers would be dropped at stage 1. The agenda for this item listed discussion on design for quantity take off, change process and design freeze. These were all discussed. There was a formal request for a separate PB team to feed the tendering teams.
40. I am aware of an email dated 26 January 2007 from Geoff Gilbert to me (**CEC01789801**) in which he sought my views on whether there were opportunities for significant savings and whether a 10% reduction was an achievable target. TIE had a target for the total cost of the Infraco contract and saw value engineering as a means of reducing that cost by 10%. It is well documented that a 10% reduction through value engineering is a very difficult target for concrete structures unless quite radical measures are taken. Edinburgh Park viaduct, for example, is a long, multi-spanned viaduct. We proposed closing it right up and making a single-span bridge over the railway with approach embankments. This would have reduced the cost significantly. We also thought that some of the cost of the viaduct could be reduced by

making it steel and concrete rather than just concrete, but a 10% reduction was probably impossible, or at least very unrealistic. Equally, I would have said to Geoff Gilbert that significant savings were possible here, but a change to the outline consent for the viaduct would require discussions with the planners and the owners, which could add a six-month delay to the programme. These matters needed to be taken into consideration. If TIE had been doing their job, they could have been having preliminary discussions with CEC Planning and Edinburgh Park Limited but I do not think they did so.

41. PB and BBS both thought that the depression that the depot was to be built in could be raised by a metre. Raising the depot meant raising the track at that point and this is near where the tram passes under the A8. The raised depot level was actually built. Siemens created a design for the overhead lines that were supposed to go through the tunnel under the A8. A contact rail was placed on the soffit of the structure so that the pantograph drops off the lines and picks up the contact rail. This allows the level of the track in the underpass and the depot to be raised, and avoids excavating ground one metre deep. I believe that this changed design was delivered.
  
42. I am aware of the minutes of the BBS contract and legal meeting with TIE on 10 April 2007, which recorded that BBS did not have a high level of confidence in SDS (**CEC01525889** page 3). SDS were slow and under-resourced. I recall attending a meeting at which we thought we could unlock some of the PB information but they had some pretty awkward individuals and they just did not want to cooperate. I cannot recall the date of the meeting. Alan Dolan of PB was particularly obstructive and unhelpful. We knew there was certain information that was there and we would ask for it but we did not get it. I am not sure whether this was PB being obstructive, or TIE not wanting to release it. PB had a process where they took a drawing and, they described it as, putting it over the wall to TIE. TIE would then decide whether this would be released to the bidders. I am not sure where all the hold ups were coming from at that point but it was pretty frustrating for us. On a personal level,

however, we got on with SDS. The negotiations were “hard-nosed” but civilised.

43. I am aware of a letter from Richard Walker and Stephen Wright to Matthew Crosse of TIE dated 8 May 2007 sent in relation to the submission of BBS' Consolidated Proposal (**CEC01656123**). The consolidated proposal was a development of the 12 January submission. It was re-priced, contained new information and the clarifications were reset. The clarifications were a reflection of our growing concern about design, approvals, third party agreements, conditions of contract and delays to MUDFA. We set these out clearly, together with what was provisional and what qualifications applied.
44. I am aware of an email dated 24 May 2007 which Bob Dawson sent to me, attaching an updated design information schedule (**CEC01657696** and **CEC01657697**). I replied by email on 28 May 2007 (**CEC01629788**) attaching a spreadsheet with queries on TIE's Procurement and Design Programme. His email and schedule were just further pieces of information, which was good. My view of TIE's Procurement and Design Programme, at that time, was that it needed a tweak. We were getting to a stage where we were keen that TIE and PB did not waste effort doing something that we were going to re-engineer. We did not want them doing unnecessary work, but at the same time we were still in a competitive situation. For example, PB had designed a piled wall for the underpass under the A8 which we thought was completely over the top. It had interlocking piles called Secant piles but there is an underpass about 100 meters away built with contiguous piles. It was more efficient and cheaper to use the contiguous piles. We wanted PB to stop wasting time on Secant piles and to just to work on the contiguous pile design. We did re-engineer some of the structures to save costs and we were also trying to persuade PB to give us a tender design.
45. TIE did not accept my suggestion that detailed design for structures should not be completed at that stage. They simply continued. Ultimately, there were structures that were re-engineered and saved cost, as at the A8 underpass.

8 May 2007  
should be  
8 May 2006

46. Workshops were held on Value Engineering (VE) on 1 and 7 June 2007. I am aware of the Report and Action Plan produced by TIE for both of these meetings (**CEC01658322** and **CEC01644202**). This was prompted by TIE trying to drive our costs down. In my view, the VE savings TIE were looking for were not achievable. The workshops were instigated by TIE.
47. Normally, a tender would include VE proposals. However, in a normal tender any VE proposal would then result in a 50/50 share of the savings. This did not happen on the Edinburgh Tram. The VE was all the client's saving. We put in the effort and the money saved was used to reduce the price. We could have allowed for this in our Risk & Opportunity schedule, if we had seen some VE that, for example, TIE had not identified. We could have put that on the opportunity side because we know there would be an allowance for risk and opportunity and we could have taken a bit of opportunity.
48. I note that the minutes of the meeting on 11 June 2007 between TIE and BBS recorded that BBS expected "*all approvals and consents in place at novation of SDS*" (**CEC01654151** page 1). The insistence on all approvals and consents being in place reflected what contractors were prepared to do at that time. Contractors do not like taking risks that they do not have the expertise to run. In 2007 we were pretty clear that we would not take on the risk of the consents. TIE's statement that all of the approvals and consents would be in place at novation was fine for us.
49. The minutes of the TIE/BBS meeting on 19 June 2007 noted that "*BBS have not priced for managing consent process, but would like to do so as part of Due diligence*" (**CEC01654889** page 1). It was unlikely that by June 2007 all approvals and consents would be in place at the time of novation of the SDS contract. We knew that there were things coming along including a building fixings issue. I think that the record in the minutes is not well phrased. We would have considered managing the consents post-novation but only after due diligence and if we were being paid to do so.

50. I note the email dated 26 June 2007 from Geoff Gilbert to Richard Walker, in which Geoff Gilbert referred to Richard Walker having some concerns over the standard of drawing information (**CEC01625845** page 1). We had lots of concerns about the design and about the programme and the quality, and I do not think they were ever resolved. The programme alarm bells were starting to ring louder and louder.
51. I am aware of the TIE notes of a TIE/BBS meeting held on 29 June 2007, which recorded that BBS were merely trying to protect their position and that we wanted to understand the SDS delivery programme and cost issues at the earliest opportunity (**CEC01696518** page 2). We were desperate to get a realistic SDS delivery programme because we had seen the design programme slip from October 2006 to June 2007 and we wanted something realistic that we could rely on for the design and build job. It is entirely correct to say we were looking to protect our position.
52. BBS did not re-submit a tender in July 2007 but did submit a Contract mark-up..
53. The utility diversion works under the MUDFA contract started in July 2007. The concern over delay was discussed at meeting after meeting but it was not our risk. Our understanding was that the utility diversions would have been done by the time we commenced. Ultimately, not completing the utility diversion works before the infrastructure works commenced led to some of the items in Schedule Part 4 in the contract.
54. I note the minutes of the BBS Technical Meeting on 12 July 2007 recorded an *“expectation that all SDS detail design will be complete by contract award date”* (**CEC01611490** page 3, item 6.0). That was fantasy. We did not believe it would be the case. The incomplete design would be dealt with in the contract and, ultimately, this was done within Schedule Part 4.

55. I am aware of the letter Geoff Gilbert sent to me dated 19 July 2007 (**CEC01627004**) headed Activities to Deliver Contract Award Recommendation and enclosing a paper with the same heading. He highlighted recommendations and my view is that the letter was just setting out the steps needed to close down as many of the unknowns as we could. It was part of the negotiation process. There was a developing thought that we had to get to a point where, whatever the design information, it would be fixed and would form the basis of the contract. As a result, things were starting to crystallize. After the design was fixed, if there were any changes to that design we would be paid for anything arising from that change. The fixed design was called Base Date Design Information (BDDI).
56. There were a few things causing design delays. The City of Edinburgh Council, as our ultimate client, were signing off on some parts of the design but not on others. This caused delays, as did PB not performing very well in terms of the design and the fact they were not being well managed by TIE. All three caused delays but all three combined caused a growing problem.
57. The same paper attached to Geoff Gilbert's letter referred to further design information which was to be provided (**CEC01627004** page 3, para 3.2). I do not know if this was done. The paper also referred to the items required by bidders for the purposes of due diligence for the price and performance risk critical issues. (**CEC01627004**, page 4, para 3.3). I cannot really think of anything that would not have been a risk critical issue. As far as I can recall there was no plan for due diligence at this stage. We ended up doing due diligence after November 2007 when the design was fixed and frozen. We eventually had to put a line in the sand and say this is the design on which our price is based, and what we will give you a set of risks and pricing assumptions for. In my opinion, the proposed procurement timescale was possible, but to achieve it would have meant TIE accepting there was quite a lot at large.



58. I note the BBS submissions sent by letter to TIE dated 7 August 2007 which included a Schedule of Clarifications (**CEC01604676** and **CEC01491869**). The main items were set out in the covering letter. As I have said earlier in this statement the clarifications became Schedule Part 4.
59. I am aware of the minutes for the Infraco Evaluation Meeting with BBS held on 22 August 2007, which recorded discussion of normalisations (**CEC01599396** page 1, item 2). I am also aware of a Normalisation Tracker spreadsheet (**CEC01599395**). This was not unusual, and the client's plan is usually to play bidders off against one another. However, this normalisation process did not work that way. My view is that normalisation was a financial pressure device. At various meetings we asked how normalisation was calculated as there was no transparency, just prices with nothing to compare it with. It was just an attempt to drive our price down.
60. I note the letter I wrote to Geoff Gilbert on 24 August 2007 (**TIE00087652**), in which I confirmed BBS's revised price of £217.2 million for phase 1a and £45.9 million for phase 1b. This was a revised price based on some information that had come to us. I cannot remember what triggered the re-bid on 24 August. It was part of the negotiations. We were trying to correct some of the normalisation that TIE had done to our bid. It was also done to be clear and to restate that the Schedule of Clarifications remained effective. I believe the letter sets out what sums were firm and what sums were provisional. Additional information was included in the bullet points at the end of the letter. The provisional sums would be unchanged from 7<sup>th</sup> August 2007.
61. I am aware of the email sent by Geoff Gilbert to me and Richard Walker on 30 August 2007, attaching a spreadsheet summarising the BBS commercial position (**CEC01642812** and **CEC01642813**). This was pressure being applied. He noted that *"Taking things in the round it doesn't look like there has been much movement"* and that *"Heads up from the contract session this morning is that it has not gone at all well. We need to settle this this afternoon"*. We could do with minutes of the session on 30<sup>th</sup> August 2007 but if

there is nothing, there is nothing. I do not have a note of what went on, but as I say the pressure was increasing from 30 August 2007.

62. I am aware that the minutes for the Infraco Evaluation Meeting with BBS on 5 September 2007 referred to price and that TIE were disappointed not to hit their budget (**CEC01693654** page 1, item 1). TIE had asked BBS to work with them to reduce numbers through VE and an update for constraints. VE became a continuing sore. TIE were trying to talk us into VE. They were looking for agreements up front and trying to drive us into just taking money off rather than asking if there was potential to take money off.
63. I attended presentations by SDS on 20 September 2007 to the two Infraco Bidders, named for the purposes of this exercise; Scoop and Roley. This confirmed what we already knew: that PB were not making great progress on design. This just increased our concerns that the design would not be completed, as promised, when we took on the contract.
64. I do not remember specifically what discussion took place with TIE and PB around that time (September 2007) in relation to the extent to which design would be complete, statutory approvals and consents would be obtained and utility diversion works completed. However, I am absolutely sure that we would have repeated our concerns that things were not going to be as advanced as they needed to be.
65. On 21 September 2007 (**CEC01602752**) I sent an email to Geoff Gilbert, commenting on Appendix 6.4 (mechanisms for adjustment of price) (**CEC01602753**) of the draft deal, in which I referred to TIE stating their intention to deliver a price within the £219 million budget for the Infraco works. I also noted that our understanding was that quantities in general would be recalculated for the design at the time of contract agreement in accordance with the part of Appendix 6.4 headed '*Omissions and Additions to the Price*'. I do not know why TIE had a budget of £219 million for the Infraco works or how they arrived at that sum. It was simply a target number. The purpose of

Appendix 6.4 was, in my opinion, for negotiation or trying to “bully” our price down. Ultimately, we did get some sense to prevail. We needed that line in the sand on the design and that was the BDDI on 25 November 2007.

66. Geoff Gilbert sent an email dated 2 October 2007 to me and Richard Walker (**CEC01604127**), attaching an Index to the Draft Deal (**CEC01604128**) and the draft Preferred Bidder’s Agreement (**CEC01604129**). This was all part of the process to appoint a preferred bidder and move through to the financial close. It was part of the negotiations to draft a deal and firm it up into a Preferred Bidder Agreement, which we did on 22 October 2007. However, there was a large list of outstanding matters in the draft deal.
67. Ultimately we signed as Preferred Bidder on 22 October 2007. The draft deal Geoff Gilbert circulated on 2 October 2007 led to us signing up as Preferred Bidder under the Preferred Bidder Agreement on the 22 October 2007.

### **The Appointment of BBS as Preferred Bidder to Contract Close (October 2007 to May 2008)**

68. On 22 October 2007 TIE and BBS entered into an agreement relating to the Selection for Appointment as Preferred Bidder (**CEC01497399**). This was just another stage in the negotiations. It confirmed that TIE were only talking to us as the Preferred Bidder.
69. Clause 4.3.1 of the agreement gave the sum of £218.5 million as the estimated cost of the infrastructure works (**CEC01497399** page 8). This was part of the £219 million budget.
70. Clause 7 of the agreement dealt with due diligence (**CEC01497399**, page 10). We understood that at a point we would have to undertake due diligence on design and consents, third party agreements and Employers’ Requirements. We were aware of these requirements, which were to carry out due diligence in accordance with the finalisation programme.

71. Clause 3.1 of the agreement dealt with finalisation issues (**CEC01497399**, page 6). There were a lot of finalisation issues, some described in a few words but dealing with big issues. The main issues were design, MUDFA, third party agreements and consents. Appendix 2 of the agreement contained a Preferred Bidder Finalisation Programme. We were not given a lot of time for this. As a result, the programme was not realistic and it certainly was not achievable, as subsequent events showed.
72. Discussions continued between BBS and TIE after we had been appointed as preferred bidder. The people that were involved were Richard Walker who was our managing director, the late Gary Dalton who was our commercial director, me, Tom Murray who was our commercial manager, David Taylor the design manager, the late Roland Halliday who was the estimator and Steve Sharp the planner. We also had people in from Germany: an estimator Markus Muller, Axel Metzger, who was Wiesbaden senior management, and we were still referring things upwards to Joachim Enenkel.
73. On TIE's side, Matthew Crosse, Geoff Gilbert and Andrew Fitchie were certainly involved. Our lawyers became more and more involved. We had Ian Lang and Suzanne Moir of Pinsents and TIE had Andrew Fitchie from DLA Piper. I do remember the period leading up to the end of 2007 as being meeting after meeting, some of which went on into the "wee small" hours. There were a lot of meetings, continually concerned with trying to squeeze our price.
74. I note the minutes of the preferred bidder weekly progress meeting with TIE on 30 October 2007 refer to VE meetings and a comment, by 'SF', that TIE must have "*spectacular*" ideas for this saving (**CEC01500084** page 1). This comment would have been by me. I must have weakened and become sarcastic. It was about TIE's continued attempts to drive cost out of the job. I also note the minutes of a Structures meeting held on the same day which recorded that a saving of £9 million was required on the structures budget (**CEC01502117** page 1). A saving of £9 million on that budget was absolute

fantasy. I think we had pretty much convinced ourselves that the real spectacular savings, such as changing Edinburgh Park viaduct were no longer possible.

75. In the minutes of the weekly progress meeting with TIE held on 13 November 2007, it was recorded under Issues Arising that BBS were concerned about gaining access to current information via the data room and the GI (Ground Investigations) interpretative report offered by SDS being inadequate (**CEC01477879** pages 1-2). The GI interpretative report was definitely inadequate. In my experience, if the designer were working for us then you would ask him, amongst other things to look at the GI and give us his interpretation of how far below the underside of the track slab we needed to dig to be able to provide a firm foundation. The interpretive report would then explain where we would be digging and where we would not be digging because it is hard. Nothing like that was provided in this case.
76. This was definitely a theme of my discussions with Susan Clark at the time. In relation to the GI, I think that it was Halcrow that was doing the design for the track on behalf of SDS. We asked for a crisis meeting. TIE brought in their independent consultants, Donaldson Associates and their guy called Donald Cook. I cannot recollect his exact words, but he confirmed in the meeting that what I had been saying was correct in respect of what tenderers should get on a design and build tender. However, we never did get the information and the way we covered it was by writing something into Schedule Part 4. There had been clarification after clarification: to use my phrase, we were being "beaten up" to try to get the price down. I did say that if we got an interpretative report we might be prepared to take some risk on the ground, and that is the GI we are talking about.
77. The same minutes for the 13 November weekly progress meeting reported at item 3 that there were concerns in relation to the Employer's Requirements, specifically in relation to misalignment (**CEC01477879** page 2). The Employer's Requirements were strange in that PB were writing them but they

(PB) were going to be novated to us. I think that the Employer's Requirements should have been independently drawn up by the employer, to reflect their requirements. The same section of the minutes recorded issues with Temporary Traffic Regulation Orders (TTROs). These were not in place when we needed them. The same section also noted our intention to work from west to east rather than east to west. I do not understand the issue with that. West to east was how we were running and it made sense at the time.

78. The same minutes for the 13 November weekly progress meeting reported at item 6 that TIE expressed concerns that in some areas in which VE had been explored, costs were liable to increase as more information became available to BBS (**CEC01477879** pages 2-3). I have already discussed VE: the opportunities were getting narrowed down all the time. Some things had a reasonable probability of VE and some did not. There were never as many as TIE wanted.
79. Timescales for addressing these issues were never resolved. We went through a period of optimism that the design matters might get better when PB commenced working for us following novation, but they did not.
80. I am aware that the minutes of the Structures meeting on 22 November 2007 noted difficulties experienced by BBS in accessing the information in the design database and that a CD was to be provided which would enable BBS to produce a firm price (**CEC01502105** pages 3-4). The five CDs were a means of getting "round" SharePoint TIE's document management software. At this time SharePoint was not fit for purpose. The software is much improved now. The BDDI was agreed to be the five CDs because of this. In design and build, it is important to get to a point where the design is frozen, whether the designer is working for you in a design and build tender or working for the client with novation. The firm price referred to was based on the design we had, so it was firm-ish and TIE were absolutely clear, or we thought they were absolutely clear, on the implications of the BDDI.

81. I made reference to the issue of design freeze in my witness statement of 19 April 2010 (**CEC00351749**, pages 3-4). It would have been talked about from not long after we got the first set of tender documents in October 2006. It would have been discussed at the tender meetings between me and David Taylor, who was the Design Manager. On the TIE side, Bob Dawson and Geoff Gilbert were dealing with it. Tom Murray would also have been involved in the design freeze. We had Corderoy producing quantities for the estimators. The design freeze was needed to fix their quantities. So that was what design freeze was needed for, to fix the quantities.
82. I am aware of an email dated 26 November 2007 from Geoff Gilbert to Richard Walker and copied to me (**CEC01493250**) which set out the “*big issues*” for TIE at that time. In my opinion this was all part of the continuing pressure on our price. Their big issue was price while our big issue was the lateness of the design, MUDFA running late and consents not being in place. These issues were resolved to an extent by the contract on 14 May 2008, but only insofar as both parties knew what their obligations were. It just took time.
83. I am aware that the minutes of the technical issues round up meeting with TIE/CEC/TSS on 26 November 2007 recorded that BBS appeared not to have engaged with the due diligence process and that we were only now beginning to complain of information overload (**CEC01428111** page 2). This was a growing concern. We got the five CDs I have referred to on 25 November 2007, and were then told on 26 November that we were not engaging with the process. It was just another part of the squeeze and pressure that TIE were applying.
84. The same minutes noted that we had highlighted the client aspiration to hold the into service date whilst slipping the start date, leaving a construction period of as little as 18 months (**CEC01428111** page 2). The background to this is that we were having real difficulty getting anything from SharePoint, so we had a design guy come in from Germany, Ralf Honeck. We then set up a process of reviewing the BDDI but it was just a sign of the times that

everything had to be done immediately. We were concerned about the “into service” and start date issue: of course, the Tram was going to be a very difficult piece of work.

85. I am aware that the minutes of the weekly progress meeting on 27 November 2007 recorded discussion of several outstanding issues and that Willie Gallagher expressed concern and provided critical comment as did BBS (**CEC01328042** pages 1-2). We had a growing realisation that we were going to have to integrate our programme with the late running MUDFA programme. We had covered our risk through the Pricing Assumptions which said that the MUDFA works would be complete. We then had to do something spectacular to improve PB’s performance. This was all just another form of pressure.
86. I am aware of the internal PB email dated 30 November 2007 circulated by Steve Reynolds to Keith Hawksworth and Greg Ayres (**PBH00032091**). He commented about spending significant amounts of time with various members of the TIE management team to ensure PB’s position was protected when BBS’ final offer ‘inevitably’ came in over budget. Steve Reynolds was almost certainly protecting his own corner, but he was correct. If TIE had bought all of our clarifications and pricing assumptions, then the offer would definitely have come in over budget. The inevitability would have depended on TIE buying out our qualifications.
87. I am aware of the SDS Weekly Report dated 30 November 2007 produced by Steve Reynolds which stated that BBS were running the clock down by making requests for further information when in reality we had more than we could assimilate (**PBH00032092** page 1). It was also noted that I suggested to Steve that TIE’s procurement process was in disarray and that it was unlikely the contract would be signed before April (page 2). TIE absolutely knew about this because of the amount of work that had to be agreed on. I was right in this as we did not sign the contract until May. Steve Reynolds was defending PB and we were probably turning up the heat on them by this time. They had to accept that they were going to be novated to us.



88. In an email Matthew Crosse sent to me on 4 December 2007 (**CEC01466900**) he advised that TIE had failed to achieve their VE targets in structures. He also said that TIE would need us to revisit our entire pricing strategy if TIE were to achieve their budget target of £498 million. This was just negotiation. He was basically asking for a discount. We probably did offer one, but not to the extent that TIE were expecting or demanding. I do not know if TIE were actually expecting us to cave in and give a sweeping £20 million off the price, but if they did, it was a pretty fantastic notion.
89. I note the email dated 4 December 2007 that Suzanne Moir of Pinsent Masons sent to Andrew Fitchie, Philip Hecht and Geoff Gilbert and which was copied to me, attaching a mark-up of the proposed Change Mechanism (**CEC01493840** and **CEC01493841**). We were expecting to sign a contract with a lot of change and with different types of change. It was therefore necessary to have a contract that covered all the possibilities, whether these were compensation events or TIE changes. The Change Mechanism was therefore very important to us. There was a long list of pricing assumptions and we needed a mechanism for dealing with all types of change.
90. We thought we were pretty clear in our understanding of how this worked. This was embedded into the contract in the following months. Once the Contract was signed, TIE clearly had a completely different interpretation of how these changes should work. I think BBS were absolutely consistent, however. We set out that our price was based on the frozen design of 25 November 2007. I wanted TIE to know our qualifications, which we were sticking to, and that this was how we were going to deal with them in this contract. TIE either chose not to believe this or thought they could wriggle around it, I do not know.
91. I am aware that the minutes of the weekly progress meeting of 6 December 2007 made reference to discussion of a number of outstanding issues, including pricing (**CEC01494651** pages 1-2). I have no real recollection of this: I think this was simply a discussion of pricing mechanics.

92. On 10 December 2007 I sent an email to Geoff Gilbert regarding difficulties BBS had in firming up prices for a number of items (**CEC01494139**). In his reply, on the same date, (**CEC01494152**) he said that the result would be that TIE would not make their timetable, and would not get anything of significance in the near future. Further correspondence on pricing followed by letter dated 11 December 2007 (**CEC01481843**) from Willie Gallagher to Richard Walker. This identified specific matters in respect of which agreement was required. These were price confidence, price level, programme confidence, contracts closure and Employer's Requirements. Richard Walker replied to Willie Gallagher by letter dated 12 December 2007 (**CEC00547788**) providing comment on the specific matters, and noting that the price could be fixed by adding specified further sums totalling £8.2 million.
93. I am aware of all of this and was heavily involved. The suggestion that the price could be fixed for £8.2 million was the work of Richard Walker, Gary Dalton, Tom Murray, the estimating team and me. I did not go to the Wiesbaden meeting, but I was involved in the build-up to it. It would be correct to say that we could firm up on certain items for £8.2 million but only if we had the design information. We expected that some of our clarifications would be bought out. It was "round one" of the buying out process and the price was £8.2 million.
94. I note the email dated 12 December 2007 from Michael Flynn of Siemens (**CEC00547750**) to Matthew Crosse at TIE, referring to the transfer of money from the 1A price to the 1B price. At BBS we thought this was just TIE trying to hide the true cost of 1A.
95. I sent an email dated 12 December 2007 (**CEC00547761**) to Geoff Gilbert with an attached document entitled Structures – Pricing Reliability Analysis (**CEC00547762**). This was an estimator's spreadsheet. Geoff Gilbert sent me the spreadsheet to fill in. BBS were trying to commit more of our pricing to limits. The spreadsheet was just more financial pressure. TIE's budget allowance was always part of continuing pressure. I think that was the purpose of the document.

96. I note the internal TIE email dated 14 December 2007 **(CEC00547759)** that Geoff Gilbert sent with the Infracore Negotiation Summary Position attached dated 14 December 2007 **(CEC00547760)**. I do not have any view or comment to make on this.
97. Meetings between BBS and TIE took place at BB's headquarters at Wiesbaden, Germany, in the week leading up to Friday 14 December 2007 where an agreement (the Wiesbaden Agreement) was reached verbally. On 17 December 2007 Richard Walker came to Edinburgh and we ran through what had been agreed in Wiesbaden and started to write it up in draft. It was then completed and was signed on Thursday 20 December 2007 **(CEC01502881)**.
98. I think the meeting took place in Germany because Willie Gallagher was trying to get to Joachim Enenkel, who he hoped was going to agree and sign it off. I think the intention was to get nearer to the decision making. To that extent, it was helpful because at the Wiesbaden meeting there were one-to-one discussions between Enenkel and Gallagher.
99. The meeting was conducted by BB's German principals and not Richard Walker and me. I think that this was because Willie Gallagher was trying to get to talk to the senior decision maker in person. I am not sure exactly who attended, but I know Enenkel was definitely there. I think Axel Metzger was there, who was the main liaison between Wiesbaden and Edinburgh. He is also an engineer. Christian Korf would have been there because he was the in-house lawyer. Richard Walker was definitely there and I think Ian Laing of Pinsents was there. There may have been another Bilfinger guy but I am not sure. I am not sure who was there from TIE apart from Willie Gallagher. I think Geoff Gilbert, Matthew Crosse and Andrew Fitchie would have been there as well.
100. I was not really kept informed of on-going developments at the meeting because the serious discussions happened quite late at night, and into 14

December 2007. I do not recall much email traffic. Richard Walker may have sent things to me.

101. I am aware of the email sent by Richard Walker to Geoff Gilbert, me and Michael Flynn on 18 December 2007 (**CEC00547721**), in which he advised Geoff Gilbert that BBS' programme confidence was only valid if the SDS delivered their design as scheduled in the programme submitted prior to the Preferred Bidder award. It was obvious that the Wiesbaden Agreement that was about to be signed on 20 December 2007 needed PB design to perform.
102. I note the email Geoff Gilbert sent to Stewart McGarrity, Alastair Richards and Jim McEwan attaching a contract deal summary and a draft of the written agreement dated 14 December (**CEC00547723** and **CEC00547724**). The draft set out the agreement reached between BBS and TIE on 14 December 2007 in respect of the price for the delivery of Phase 1A. This email was part of a continuing daily exchange of draft agreements. A further draft version of was produced and circulated on 18 December 2007 (**CEC00547729**). Drafts were exchanged with comments added or removed. It was a busy week. I was copied into many but possibly not all of the emails.
103. I am aware of the internal TIE email dated 18 December 2007 (**CEC00547800**) that Stewart McGarrity sent to Alastair Richards, Geoff Gilbert, Steven Bell, Matthew Crosse and Jim McEwan in which he queried what level of design development risk BBS were taking on from TIE. I can understand his position. We were trying to protect our position and take no more risk while TIE were trying to get us to take more risk. I presume that somebody in TIE was saying that the Wiesbaden Agreement included for BBS taking more design risk and Stewart was just asking if TIE were sure on that.
104. On 19 December 2007 (**CEC00547732**) Richard Walker emailed Geoff Gilbert and me, insisting that the contract was related to the firm price (including the additional £8 million) which had been based on the additional information we had received on CDs from SDS. There were further emails on that date with

emails from Richard Walker to Geoff Gilbert (**CEC00547735**), Geoff Gilbert to Richard Walker and copied to me attaching a copy of the draft agreement (**CEC00547756** and **CEC00547757**), and from Geoff Gilbert to Richard Walker and copied to Michael Flynn and Matthew Crosse attaching a further draft (**CEC00547738** and **CEC00547739**). I was involved in much of this discussion and I thought I would have been copied in on these emails. I may not have been.

105. Richard Walker sent an email to me and Geoff Gilbert on 20 December 2007 (at 0607) (**CEC00547740**), advising Geoff Gilbert that BBS still had issues in relation to accepting design risk and that we had not priced the contract on a design and build basis as (with the exception of the provisional items fixed with the £8 million) we had believed until recently that design would be complete on novation. This was what was finally reflected in the contract. BBS would only accept the risk on design development if it was increasing the reinforcement content or a little section size. However, if it was 'scope' or 'form' – such as, for example, if the span had to increase on a bridge – the cost arising was something that we would expect to be paid for. We were trying to write down what had been agreed at Wiesbaden. The email was sent early in the morning of 20 December 2007, before the Wiesbaden Agreement was signed.
106. I am aware of an email from Matthew Crosse to Richard Walker, Michael Flynn, Stephen Wright and me, sent on 19 December 2007, which set out the agenda for the meeting on 20 December (**CEC00547737**). This meeting included the signature of the Wiesbaden Agreement or Contract Price Agreement (**CEC01502881**) between TIE and BBS. The construction price was £218,262,426 subject to certain exclusions, provisional sums, assumptions and conditions. All of the fine points were confirmed at the meeting and this resulted in the signing of the Agreement.
107. I understood that the price was subject to exclusions, provisional sums, assumptions and conditions, as was set out in the Agreement. Clause 3.3

(CEC01502881, pages 3-4) refers to "cost arising from the normal development and completion of designs" and confirms that "for the avoidance of doubt normal development and completion of designs means the evolution of design through the stages of preliminary to construction phase and excludes changes of design principle, shape and form and outline specification". I think that this was the subject matter of one of the adjudications. It was the most difficult part of the Wiesbaden Agreement to agree on and was the last thing that was sorted out.

108. This related to specific things like changes to the design resulting from the impact of the kinematic envelope of the Tram. We were excluding any impact of the tram vehicle design on the design of the structures. Another fairly major item was the exclusion from our price of the rebuilding of pavements to full depth. We were planning on using the existing kerbs and flags and doing minimal reinstatement behind the kerb lines. Our contract was to go from kerb to kerb so where we had to raise kerbs we were doing a repair behind each kerb and not going right back to the buildings. That was one of the important qualifications.
109. I would say the Wiesbaden Agreement was contingent upon the completion of the design due diligence exercise. It had started by that time but I do not think we had completed it by the time Wiesbaden was done.
110. I am aware of previous drafts of the Agreement, containing earlier versions of clause 3.3, dated 14 December, 18 December and two drafts from 19 December (CEC00547724, page 3, CEC00547729, page 3, CEC00547757, page 3 and CEC00547739, pages 3-4). I would say that BBS probably did assume greater responsibility in the final draft (CEC01502881, pages 3-4). I could not say what the additional risk was.
111. I am aware of an email dated 10 September 2009 from Stewart McGarrity to Richard Jeffrey, David Mackay, Steven Bell, Graeme Bissett, Susan Clark, Alastair Richards and Dennis Murray (CEC00784192) in which he set out his

understanding of how approximately £50 million of provisional prices became firm sums in the Wiesbaden Agreement. Some of it did, it was just a move. For £8 million, we moved some of the priced work into fixed and some remained at large. I do not know the source of the £50 million figure quoted in the email: the Agreement did not include that figure.

112. An Infraco Mobilisation and Advance Works Contract was concluded in late December 2007. This is not unusual with these contracts. It was a mobilisation contract to secure the programme and get the planning done. Things such as establishing the project office would have been priority works.

### **January to May 2008**

113. In late 2007 and early 2008, an issue arose concerning a misalignment between the design that had been produced by PB, the Employer's Requirements in the Infraco Contract and BBS's Civils Proposals. It was unusual that PB were doing the design and producing Employer's Requirements rather than producing a design in accordance with Employer's Requirements.
114. When you are doing a Transport Scotland job you start with Employer's Requirements and the designer then designs in accordance with those requirements. Ultimately you have to certify that what you have built is in accordance with the design and is in accordance with the Employer's Requirements. So, the fact that there was a misalignment between design and the Employer's Requirements was pretty fundamental and quite worrying.
115. The issue was resolved through one of the Pricing Assumptions, but I cannot remember which one. This was a means of managing any misalignment. The Pricing Assumption, if I am right, would have been that the SDS's design was in line with the Employer's Requirements. Pricing Assumptions are statements of fact. If a piece of design was not in accordance with the Employer's Requirements and BBS were required to redo it, the difference between the revised design and the original design would be paid to us under the contract.

This was a Notified Departure. The Notified Departure process is used where both parties are aware that the Pricing Assumptions, which are statements of fact, are not in fact correct.

116. This was the first time I had been involved with a contract like this. Our lawyers said it was not unusual. What was so unusual with the tram contract was that both parties knew that the Pricing Assumptions were wrong, in fact, at the time of signature of the contract. A number of Notified Departures were produced as soon as the contract was signed.
117. There were many Notified Departures. I believe that TIE were telling CEC that BBS would do the project for the contract price of £218 million without any additions, whereas TIE and BBS both knew there were many Pricing Assumptions embedded in the contract. This made increases inevitable as soon as the contract was awarded. This was the case even prior to the later events where it was decided that something different to the original design was required. I think that TIE were definitely misleading CEC.
118. The novation of the SDS contract to BSC took place in 2008. The main concern in relation to the novation was with the Pricing Assumptions. One of the Pricing Assumptions, the SDS programme for delivery of design, was fixed at a point in time. It was to be delivered to version 26 but, by the time we signed the contract, it was at version 31. There were further versions following signature of the contract. It was being revised all the time. We were certainly aware that TIE's major concern was cost. PB were worried about being novated to us and how that management process would work out. As I said earlier, I do not think they thought they would ever be novated to us at one time and it was not until early 2008 that, I think, that they accepted it was going to happen.
119. Various price increases were sought by BBS in the first half of 2008. I think the price increases were all summarised and embedded in the Rutland



Square Agreement of 7<sup>th</sup> February 2008, (**CEC01284179**), by which time the price had increased to £222 million.

120. Discussions in relation to the draft Infraco Contract continued during January 2008. There was a series of late-night discussions and meetings. Those involved were, Tom Murray (my Commercial Manager), Gary Dalton (the Commercial Director), Richard Walker, Michael Flynn, Herbert Fettig of Siemens, Suzanne Moir, Ian Laing of Pinsents, and me. On TIE's side there was Steven Bell, Matthew Crosse, Jim McEwan and Willie Gallagher. Willie and Jim were both ex-Scottish Power and we felt Willie had brought Jim in as some kind of fixer to help push the Agreement over the line. Willie Gallagher did not go to a lot of the meetings but Jim McEwan did. Geoff Gilbert was also there and Andrew Fitchie who had an assistant, whose name I cannot remember was also there.
  
121. The discussions concerned terms and conditions, in particular those relating to SDS novation, Pricing Assumptions, the change mechanism, and, in particular, Clause 80 which concerned change management. The incomplete design, by that time, had been covered off because our price was based on the 25 November design. We were also pushing PB on design as that was important for the start of the contract.
  
122. I am aware of the email sent to me by Matthew Crosse on 14 January 2008 (**CEC01432272**) in which he stated TIE had briefed CEC, before Christmas, on expected risk balance positions at the close of contracts and that CEC approval had been given. Our opinion was that TIE had almost certainly misled CEC on the risk position. I think there were one-to-one discussions. It was never done in public but I am pretty sure Richard Walker would have had a discussion with Willie Gallagher questioning if CEC really understood what was embedded into this contract. There was a developing picture in 2008 with a number of new things which were starting to worry us. We were always worried about design and MUDFA progress and about consents and third party agreements. There was a growing concern that CEC were not in the

loop and we had raised some concerns about misrepresentation of facts. I cannot remember if this was done officially by BBS.

123. If we raised concerns, our line of communication was with TIE who, I assume, would then pass matters on to CEC. Richard Walker and I were also dealing with TS who had a bystander role. We could never work out where TS stood. Richard and I had meetings with TS about the M80, which was the other project that we were tendering for and we had a number of meetings with Ainslie McLaughlin at TS. Inevitably the subject turned to the Tram and we raised our concerns with them. We asked TS when they were going to get involved.
124. I am aware that the minutes of the Infraco Contract Meeting of 15 January 2008 record that concerns were expressed in relation to the SDS Programme (**CEC01529968** page 1, item 1). The minutes of the Preferred Bidder Progress Meeting which was held on the same day recorded that outstanding design approvals were a big cause for concern with SDS and BBS (**CEC01432589** page 2, item 2). Our price was based on the 25 November 2007 design freeze, and by 15 January 2008 there was new information coming in. It looked like a potential price increase for us, because the contract said that if there was a change in design from 25 November to whenever that design was built then we were entitled to an increase in the price. As the minutes record, there was concern that the design showed large amounts of roadwork, which was not in our price or programme (**CEC01432589** page 3, item 5). We were saying that certain things might require a change in price. This was Princes Street. The basis of the price in the Wiesbaden Agreement was that we would do the box to build the tram tracks in the middle and then remove the upper surface of Princes Street and replace it with new surfacing. We were not going to carry out a full structural reconstruction on Princes Street. This was covered in a Pricing Assumption.
125. I am aware of a letter dated 18 January 2008 from Richard Walker and Michael Flynn to TIE which listed a number of outstanding issues that required

resolution (**CEC01432556**). In my opinion, the most important outstanding issue on that list was novation of SDS to Infracore, followed by the resolution of liability for planning and third party consents, then the resolution of Infracore conditions and schedules, then the status and completion of design. These were the main issues. I am aware of an email sent by Willie Gallagher to Richard Walker, Michael Flynn and me on 18 January 2008 (**CEC01515012**). This acknowledged the discussion we all had over the letter of 18 January. We articulated the content of the letter, and Willie Gallagher responded as set out in his email.

126. On 21 January 2008, Geoff Gilbert sent an email to me (**CEC01488908**) stating that "*clearly from a commercial perspective we need to maintain the price*". At BBS we saw the cost of the project going up. This was Geoff saying that we needed to maintain the price. We knew that the cost to CEC was inevitably going to go up, but we were being encouraged to maintain our price. I do not recall what the BBS response was.
127. I note that by letter dated 28 January 2008 (**CEC01511117**) Willie Gallagher sent Richard Walker a revised programme for Infracore financial close. I do not know if we agreed to the revised programme. Ultimately, this took until 14 May 2008 to agree. It was all part of Willie Gallagher's negotiating technique which was to state that matters had to be agreed by the next day.
128. I would say that with goodwill on both sides all these programmes were realistic and achievable, but somebody had to approve the conditions and let us sign the deal. However this was never really going to happen and it was not completed until 14 May 2008, despite financial close being scheduled for mid-February 2008. This was because it was a difficult and complicated deal.
129. The discussions that continued during February 2008 involved the same people whom I have noted in relation to the January discussions. The main change on TIE's side was the increasing involvement of Jim McEwan and Steven Bell. By this point, Matthew Crosse was moving out and Steven Bell was moving in as Project Director. Nothing specific or different to that which

was discussed in other months was discussed. The same discussions seemed to run from January to March 2008.

130. I note that by email to Geoff Gilbert and me dated 1 February 2008 **(CEC01489538)** Richard Walker advised that our business model did not permit liability for risks not belonging in our industry or risks which could not be assessed and quantified. It was noted that TIE had not delivered the Issued for Construction Detailed Design in accordance with the Procurement Strategy and that this had changed our risk profile. This email must be read in the context of the project appearing increasingly risky for BBS. We had covered off risk with Schedule Part 4 and the Pricing Assumptions but we were still going to be left having to fight for the increase in cost and the more you have to fight the more risky it becomes.
131. Richard Walker was setting out BB's business model in the email. At that time, contractors were not prepared to take the risk of consents and since the consents were flowing from the design, it was the late design that was delaying the consents. This was an industry wide business model, where contractors would not take responsibility for risks in which they were not expert.
132. The same email makes reference to a presentation that Willie Gallagher delivered to BBS senior executives on 15 November 2007. The purpose of this was almost certainly to ensure that BBS knew of the financial pressure on TIE. You could say it was part of the negotiations. He was certainly trying to encourage us not to put the price up. I was at the presentation and remember it. I probably have a record.
133. On 4 February 2008 I sent an email to Bob Dawson attaching a Schedule 4 Pricing Assumptions document **(CEC02084854)**. The Pricing Assumptions were fundamental because of what was not fixed in our price. We needed the protection of Pricing Assumptions and the change mechanism. In a normal negotiation, the client slowly buys out the Pricing Assumptions. It is possible

to fix the price, but this costs more, and delivers less. Schedule 4 and the change mechanism probably formed the main part of discussions in the run up to 14 May 2008. Many drafts of Schedule 4 were exchanged prior to the final agreement.

134. On 7 February 2008, parties entered into the Rutland Square Agreement (**CEC01284179**). This specified the agreed construction price as £222,062,426, subject to certain conditions. We were very careful to ensure that everything in relation to the price was written down and agreed. The Rutland Square Agreement was just a further development of the previous agreements. There were more to come, namely the Kingdom Agreement and then the Final Agreement. As more information became available to us we would have to re-price and further agreements were required. Some of this possibly flowed from the due diligence and quantification of the 25 November design.
135. I am aware of paragraph 2.5 of the Schedule to the Agreement (**CEC01284179** page 7). The purpose of this paragraph was to confirm a few key elements. From our point of view, the Notified Departures had a mechanism to be dealt with. I note that it is stated that parts of the BBS draft of 6 February 2008 were not acceptable. I am not aware of the origin of this, but it must have been agreed by BBS.
136. Copy emails were attached to the end of the Agreement. To me, these were clearly part of the Agreement. Everything was discussed within the Agreement, including the contents of the emails.
137. A draft of Schedule 4 was also attached to the agreement. This made reference to Base Case Assumptions (**CEC01284179**, pages 13-16, page 17, para 1.1). These were similar to BDDI. If the assumption changed, we were entitled to an increase in price. Base Case Assumption (a)(ii) stated that the SDS design would not be amended from the BDDI (**CEC01284179**, page 13). This returns to my description of Base Case Assumptions or Pricing

Assumptions being a statement of fact. If the statement of fact was altered, there was an entitlement to an increase in price. This was all leading up to the way the contract was finally dealt with on 14 May.

138. A document was attached to the Agreement entitled "SDS Novation – RODs" (**CEC01284179**, page 27). This dealt with Review of Design agreements. Reference was made in the document to the risk of design "creep" lying with TIE. By this, we meant the situation in which the design process kept adding costs to construction. This was the employer's risk. As the BDDI was 25 November 2007, any creep from that day onwards was TIE's risk.
139. I am aware of the email from Geoff Gilbert to me dated 11 February 2008 (**CEC01508965**) attaching a potential SDS Incentivisation Agreement (**CEC01508966** and **CEC01508967**). An incentivisation agreement is essential to obtain an efficient design which meets the Employer's Requirements. We were a commercial organisation and wanted a design that was good for the project and complied with the Employer's Requirements, but was not excessive. We also had to construct a safe design. I do not know what the final terms of the Incentivisation Agreement were.
140. On 18 February 2008 BBS produced a design due diligence summary report, based on design information received on 14 December 2007 (**DLA00006338**). The document raised concerns about design including that more than 40% of the detailed design information had not been issued to BBS (**DLA00006338**, page 3). The due diligence exercise was carried out by a team of technical people and estimators, managed by David Taylor who was still the Design Manager at that time. The exercise was to ensure that the design was technically good and that we accurately reflected the quantities in the design and the price. I would say that most of what was in the report would have complied with the Employer's Requirements.
141. The exercise ran from 25 November 2007 to 18 February 2008. It was lengthy because of the amount of work required. The summary report notes that

information was still being given to us on 14 December 2007 (**DLA00006338**, page 3). As this was over the Christmas period, progress was reasonable given the amount of information to be reviewed. I am not sure if TIE were given feedback on the due diligence exercise before the final report was produced.

142. The Executive Summary of the report (**DLA00006338** page 3) stated at its second paragraph that, contrary to TIE's original intention, the design was incomplete and required significant further development. Combined with the presence of only 40% of detailed design information, this was cause for growing alarm. There was a suitable design which had been developed, but there was no geotechnical interpretive report or pavement design. The tram stops were not there because they were all still being held up by the CEC approval process. I do not know what TIE's response was to the report. I do not recall but I am sure they responded.
  
143. I note the email dated 21 February 2008 (**CEC01449336**) that Jim McEwan circulated on behalf of Willie Gallagher to Geoff Gilbert, Steven Bell, Stewart McGarrity and Matthew Crosse. Willie Gallagher stated that he was disappointed at progress, particularly in respect of SDS novation and stated that unless there was substantial progress over the next 2-3 days he would return early from his holiday in South Africa to advise CEC that TIE should deselect the current Preferred Bidders and pursue a different route. I also note his further email to Stefan Hofsaess and Joachim Enenkel expressing similar concerns on 27 February 2008 (**CEC01463219**). This was typical of the threats that were going about and was just Willie Gallagher's negotiating style. The SDS novation was always going to be difficult, but it was going to be even more difficult given the issues with poor progress which I have discussed. His theme of deselecting the Preferred Bidder was not untypical of the time.
  
144. On 21 February 2008, Geoff Gilbert emailed Richard Walker and Michael Flynn (**CEC01490710**) attaching drafts of a proposal for SDS Novation Agreement Terms (**CEC01490711**) and a Plan for Delivering Alignment in

relation to SDS Novation – Alignment of SDS Designs with Infracore Proposals (CEC01490712). These were being sent to us to review, as the agreement was being novated to us.

145. I am aware that in the internal PB Weekly Report produced by Steve Reynolds and dated 29 February 2008 (PBH00035854 p3), it was noted that Richard Walker had stated in a conversation that if TIE understood the likely cost of the scheme, it would be cancelled. I am pretty sure that TIE understood what was going to happen, but in my view if CEC had understood what was going to happen once the contract was signed, they might well have cancelled the job. The same part of the report also noted that Richard had stated that his strategy had been to retain the greatest degree of flexibility possible pre-contract, with a view to securing substantial variations in the post contract stage. That is probably correct but Richard sometimes chooses his words less than wisely. My understanding of his strategy was that it was to ensure that the contract developed to provide that BBS would be entitled to payment for additional costs arising from the inevitable changes that were coming. The development of Schedule Part 4 meant that the price was going up. This was not really a case of seeking substantial variations post-contract. These variations were going to come through as Notified Departures.
146. It was also noted in the same part of the report that Richard Walker had informed Steve Reynolds that he and his manager in Wiesbaden had seriously discussed withdrawing from the bid (PBH00035854 p3). Taking all factors into account such as the delay in the design and consents, MUDFA running late and the other things that were impacting at that time (there were some spikes in material costs and there was no variation of price clause in the contract) it was beginning to look like a job not worth doing. There were serious discussions within BB about withdrawing, in spite of the fact that we had signed an Agreement that said we would not do so. Ultimately, we did not withdraw because we were honourable people.



147. As an example of this, I recollect an incident with Jim McEwan. I cannot remember exactly when Jim McEwan was brought in by Willie Gallagher, but I called him the 'fixer'. He was a bit crude. At one point we were talking about negotiation in a meeting at TIE's offices when he said to me that it sounded as if I could not give a something beginning with F. I am not a hot head in these meetings and I did not lose my temper, but I told him that of all the people in the room, I thought I was the one who could give an F, as the project could have been my job for the next three years. I can recall this because it was offensive to me personally. That was the nearest anything ever got to getting personal towards me.
148. I note the letter dated 1 March 2010 from Martin Foerder to TIE (**CEC00578330** at paragraph 3) which stated that prior to contract award it was agreed that the Infracore would incorporate the SDS Design Delivery Programme v31 into the Schedule Part 15, with the result being the first TIE change. This letter was sent after I had left the project but I do recognise some of the numbers. The Pricing Assumption in Schedule Part 4 was that the design programme was version 26. So far as I can recall, we were at version 31 at the time of award, and so this was the first Notified Departure that was dealt with via a TIE change.
149. Discussions continued during March, April and the first half of May 2008, principally in relation to Schedule 4 and with all the same people as in January and February.
150. I am aware of an email dated 6 March 2008 from Tom Murray of BB to Eric Smith and copied to me and others (**CEC01450286**) which discussed the issue of mobilisation payments. These covered advance purchases for things such as buying equipment, the capital purchase of cranes, concrete plants, project offices and similar items. Mobilisation payments were nothing unusual and were simply part of the commercial deal. You do try to work out cash flow but if you get a little bit more than you absolutely need from your mobilisation payment, that can offset anything you might have missed. Any excess would

be retained, but most of it would be spent in setting up the site, buying equipment and putting bonds in place. The 20% figure which is referred to in the email was pretty good in my view, but it reflected hard negotiations on our part. I would say it was at the top end for such a contract. After Infracore contract close BSC (CAF had joined the Consortium by this stage) received a mobilisation payment of £45.2 million from TIE.

151. I note the internal TIE email dated 10 March 2008 from Steven Bell to Geoff Gilbert and Jim McEwan (**CEC01489952**) within which he refers to the Agreement that had been reached on 7 March 2008 (between Richard Walker, Michael Flynn, Steven Bell and Jim McEwan) that the contract price would be increased by £8.6 million to cover certain matters. The matters covered by this agreement are listed in the email. Firstly, the revenue service date was to be 16 July 2011 rather than March 2011. This resulted in an increase in prelims. Secondly, it covered all commercial impact to deliver on Version 3.5 of the Employer's Requirements. This was BSC hitting the "moving target" again. Thirdly, we were to accept any SDS design quality risk and consequent time impact. We would have a Pricing Assumption that we were not taking the risk on design quality and in March we decided to absorb this. This was the result of having done design due diligence. Fourthly we were to provide compliant depot equipment. This was covered in our price and was part of Siemens' scope. Fifthly, we were to provide tapered poles. Throughout the tender process we had stated that stepped poles were better, but we accepted the tapered poles. This entire process was simply a part of TIE buying out some of our Pricing Assumptions.
152. Willie Gallagher wrote to me on 18 March 2008 (**CEC01314423**) to inform me of TIE's intention to conclude the process for the award of the Infracore contract to BBS. This was followed by an email he sent to Joachim Enenkel and Stefan Hofsaess and copied to me the following day (**CEC01464731**) in which he advised that TIE had issued the Preliminary Information Notice advising that BBS had been selected to build the Edinburgh Tram System and that a contract required to be concluded by 28 March 2008 to facilitate the

drawdown of funding from TS before 31 March 2008. In my view, there had not been a close out of financial, commercial, legal and technical discussions, novation commitments and facilitated negotiations by 18 March 2008. The Infraco Contract was not concluded by 28 March 2008 because many of these things were still being discussed and finalised. It was not actually concluded until 14 May 2008.

153. I acknowledge the internal TIE email dated 26 March 2008 from Stewart McGarrity to Alastair Richards and Geoff Gilbert (**CEC01422917**) and the attached tables which gave a breakdown of the Infraco Contract price (**CEC01422918** and **CEC01422919**). I do not have any views on the analysis of the contract price as this was an internal TIE document, but so far as I can see, there was no allowance made for Notified Departures, which, in my view, is extraordinary. VE had been reduced, from £9 million in earlier negotiations to £2.2 million (**CEC01422919** page 6, but this figure was still too high.
154. I note the email Ian Laing of Pinsent Masons sent to Philip Hecht, Steven Bell, Dennis Murray, Bob Dawson, Christopher Owens, Stewart McGarrity and me, and copied to Jim McEwan of TIE (and several others) on 26 March 2008 (**CEC01465878**). This stated that the Design Delivery Programme would be v 28, and noted that the Pricing Assumption in Schedule 4 assumed that it would not change from v 26. This gave rise to the possibility of an immediate Notified Departure at contract signature. Ian Laing described this as 'unusual' and I would agree. To have these Pricing Assumptions, which as I said earlier were statements of fact, yet they were not quite fact here. I think '*unusual*' is putting it mildly. Mr Laing, was the BBS lawyer, I think the reason he sent that email directly to TIE was just to be expedient and informative. I think that a final version of Schedule 4 was agreed a bit before the actual contract execution.
155. I am aware of the document PB produced on 27 March 2008 entitled "BBS Civils Proposals – PB Commentary" (**CEC01377842**). This was symptomatic of how difficult novation was going to be. In our Infraco proposals we made

statements such as; “design to be completed to IFC” or “design and consents approval to be obtained” and “BBS will construct IFC design”. These were statements of fact. PB were trying to evade responsibility and would raise questions such as which IFC design BBS were allowed to construct, and whether this was an SDS design or a variant considered by BBS. Ultimately, this was simply a matter of design. PB were to be our designer, and so they had designed, for example, accommodation works and obtained the necessary consents.

156. There are many examples in this document of PB trying to evade responsibility. For example, the scope of work for earthworks was given as “*Requirements for excavation and filling below Earthworks Outline to be designed and specified and assessment of anticipated formation conditions*”. The Pricing Assumption stated that we would not undertake any works below the Earthworks Outline. We knew we would be digging below the Earthworks Outline. This was the underside of the structural layer of the track slab: that is, the crushed rock layer. We knew we would be going below that and it just depends on how soft the ground is as to how deep we would have to dig. You could dig 250 millimetres or, if the ground is really soft, you could go a metre. PB had carried out GI and formed the design. If they had given us their designers’ assessments when we were bidding, then we could have priced this. We did not know at that time that there were potentially 18 kilometres to excavate and re-fill below Earthworks Outline. That is just one example.
157. I think that PB were trying to evade responsibility. For example, it appears in the document that they were perhaps trying to warn TIE that there would be increases in cost. The column of the document headed “PB Comments” contained barbed observations, such as the comment that the scope of work would be impacted by the lower void spanning capacity of BBS’s Trackform offering when compared to the PB reference design (CEC01377842 page 2). PB maintained that they had a stiff Trackform that would span any voids. This was different from the soft formation issue. The criticism of the BBS Trackform was PB covering their backs.

158. I am aware of an email dated 31 March 2007 from Dennis Murray to Ian Laing (CEC01486346 page 2), with a spreadsheet (CEC01486347) setting out the construction works price. I cannot explain the breakdown shown on this spreadsheet or whether BBS agreed to it.
159. I note the email dated 2 April 2008 (CEC01423746) that Ian Laing sent to Philip Hecht, Steven Bell, Dennis Murray, Bob Dawson, Christopher Owens, Stewart McGarrity and me attaching a further draft of Schedule 4 (CEC01423747). This draft introduced wording in clause 3.2 acknowledging that there might be an immediate Notified Departure on contract signature (CEC01423747 page 5). Immediately on contract award the Pricing Assumptions would become incorrect, so we needed the Notified Departure process in the contract. I do not know how many Notified Departures there were in total but there would be one for almost all of the Pricing Assumption.
160. The Pricing Assumptions and Notified Departures were all discussed with TIE, who were absolutely aware of the issue. They were discussed with Steven Bell, Jim McEwan, Dennis Murray and Geoff Gilbert (although I am not sure if Geoff was still there at that time). I am not sure of the extent of Willie Gallagher's involvement.
161. I am aware of an email dated 10 April 2008 from Christopher Horsley of DLA Piper to Richard Walker, Herbert Fettig, Michael Flynn and me (CEC01448911) which included a note (CEC01448912) setting out the deal that was agreed in principle. This was part of the process of working out the details of the contract. The note refers to a £3 million pot (para 6). I think this was in relation to third party claims. BBS were paid £3 million which was deposited in a BB bank account, then paid out on third party claims. One third of the remaining pot was to be paid to TIE at the end of the process. We were to retain the other two thirds as a bonus for having managed third party claims. Paragraph 8 of the note refers to the 20% upfront payment. It was agreed that this percentage was applied to the contract sum less the provisional sum and it would be paid in periods 1 and 2 of the contract. I

cannot remember what the reference in the note to 'smoothing' was in connection with. The note also referred to the provision of access to the guided busway (para 10). This was a CEC matter. The guided busway was still running at that time, and needed to be converted to a tramway.

162. I am aware of the minutes of the SDS, BBS & TIE design interface meeting, held on 16 April 2008 between TIE and BBS, which stated that the meeting's remit was "*To facilitate diligent but open discussions between SDS and BBS with regard to critical design issues pre-contract signature*" (**CEC01351829** page 1). I recall that we were finding that Alan Dolan of SDS was not being very helpful. As time went on, he became more helpful, but this took some time to achieve. The minutes set out the issues that were discussed. We resolved the issues in relation to the Pricing Assumptions that were related to design.
163. On 18 April 2008 I received a letter from Robert Bell of TIE, (**CEC01293275**) which noted that BBS were required to set up the Infraco site establishment as part of the mobilisation and advance works contract. The letter noted that these works were five months behind programme. I replied to Robert Bell by letter dated 22 April 2008 (**CEC01293427**) and a further letter was sent to me by Robert Bell dated 5 May 2008 (**CEC01358225**). This was a minor dispute about the set-up of the site. Our tender was based on putting the site office in the depot. We subsequently agreed that the site office would be better in Edinburgh Park, next to the bypass. Moving it from the depot to Edinburgh Park took time so that office set-up would be part of mobilisation works. However, it could not possibly have been five months behind programme because of that mobilisation. The reason for that move was another TIE change, which we had to price, and it took a long time to agree the value of that change. I do not think this had an effect on the start of the Infraco Works. It was an inconvenience, but we had a serviced office in Edinburgh Park, so it just meant that we had to keep renting the serviced office for longer than we would otherwise have done.

164. In the internal PB Weekly Report dated 18 April 2008 (**PBH00018333** at paragraph 1.3) Steve Reynolds referred to Richard Walker having concerns over the presentation of the Infraco Contract deal to CEC. Steve Reynolds had previously expressed concerns that the price on the table from BBS did not align with the programme contained in the offer. Steve then suggested that TIE would have to be careful in the form of their presentation so as not to mislead CEC. We certainly had concerns about the presentation of the deal to CEC. I could say that they never really reacted whenever we expressed concerns. I do not know what they thought really. Perhaps they thought we were just trying to crank up the pressure to crank up the price, I do not know. Although BBS had drafted Schedule Part 4 of the contract to protect us from increasing costs, there was still uncertainty surrounding whether we would get paid for the increased costs in time or whether we would have to "fight" for a long time to get paid all we were due.
165. I note that in the same report Steve Reynolds went on to say that the situation was of BBS' making (**PBH00018333** para 1.3). We were forced into the situation by circumstances. In 2006, when matters started, we were told that we would have a complete design with all services diverted and all consents in place. Steve Reynolds also refers to the on-going concern which I have already described as to whether BBS should have been taking on the job.
166. Further on in that same document, (**PBH00018333** page 2, paragraph 2.1.1, 2<sup>nd</sup> bullet point) I note that Steve Reynolds referred to the need for a detailed design workshop to be held post-novation and post-contract close. There would be a need to run design workshops; there is no doubt about that, although I do not know why Steve Reynolds considered it necessary to refer to it in the report.
167. I note the email dated 21 April 2008 (**DLA00006417**) that Suzanne Moir of Pinsent Masons circulated to Andrew Fitchie, Geoff Gilbert, Dennis Murray, Jim McEwan, Steven Bell, Richard Walker, Ian Laing, Stuart Barr and me. This advised of an amendment required to Pricing Assumption 4 in the draft



Schedule 4 to state that the Design Delivery Programme in the SDS Agreement was the same as the programme set out in Schedule Part 10 (Programme). The proposed amendment concerned the mechanics of the contract. Schedule Part 10 was the programme and Pricing Assumption 4 was about the Design Delivery Programme. The two had to match.

168. I am aware of the email dated 30 April 2008 (**CEC01274958**) that Willie Gallagher circulated to Julie Thompson, Stefan Hofsaess and Joachim Enenkel advising that BB required an additional £12 million to conclude the deal, despite a deal having been negotiated and agreed by all parties on 14 April 2008. This was the culmination of our growing concern that things would go wrong. We were getting extremely frustrated. The novation was not going smoothly, the design programme was nowhere near where it should have been and the likelihood was that we were going to be working beside MUDFA. Consents and third party Agreements were difficult, to say the least, and we had extraordinary inflation on some of the materials having taken on the inflation risk. That was why we sought £12 million to conclude the deal. I suppose that we could have asked for it earlier, as is referred to in the email. We did not get the £12 million: ultimately, I think, £8 million was added to the price.
169. I note that in his Internal PB Weekly Report dated 2 May 2008 (**PBH00018873**) Steve Reynolds made two particular observations. Firstly, he observed that TIE had sponsored a paper which was materially incorrect at the time when it was presented to CEC on 1 May. This, in my view, would be correct and was symptomatic of how TIE were reporting to CEC. Secondly, he observed that the price increase proposed by BBS would result in an overall price of £520 million in comparison with the overall funding limit of £545 million, and that this was without any allowance for costs to cover the changes to scope and programme necessary to achieve alignment of the BBS offer and the SDS design. TIE would say they had done the deal with us for whatever the price was at the time, and then use that to build up to an overall price of £520 million. There was no contingency provision in the figures to



account for the alignment mentioned in the PB Report or for other Notified Departures or other Pricing Assumptions. There was not sufficient cover for a job of this nature.

170. On 13 May 2008 parties signed the Kingdom Agreement (**WED00000023**). This was signed only a couple of days before the Infraco Contract was signed. The succession of the agreements was: Wiesbaden, Rutland Square, Kingdom and Infraco. The purpose of Kingdom was to pick up all the things that had happened since Rutland Square, including the £8 million increase to which I have already referred.
171. The Infraco Contract was signed on 14 May 2008, along with a number of other contracts, including the novation of the SDS contract to BBS. Schedule Part 4 of the Infraco contract recorded the Construction Works Price at £238,607,664 (**USB00000032** page 4). I would say that 50% of the £238 million was fixed and firm. The remainder was subject to increase and/or provisional sums. VE also had to be delivered to get the price down to £238 million and my view, which TIE were aware of, was that the nearer we got to construction work the harder VE became. Some minor VE was achieved, for example the A8 underpass and the depot, but apart from that I do not think that much was achieved.
172. Part A1 of Appendix A of Schedule Part 4 contained the Construction Works Price Analysis (**USB00000032** page 15). The aim was to produce a figure at or as near to £219 million as possible, excluding the Provisional Sums. I would describe the £9.9 million of VE and £2.67 million of further VE which are identified in the breakdown as “financial engineering”. This was a matter of presentation and showing BBS’ price as affordable. If the VE savings were not achieved then it was added back to the Contract Price (in full), with BBS being entitled in addition to the cost of looking at the VE saving, up to a maximum of £25,000 per VE opportunity.

173. Schedule Part 4 listed the Pricing Assumptions (**USB00000032** pages 5-10) BBS thought there was a shared understanding concerning the Pricing Assumptions and that they had been fully discussed at meetings attended by TIE. We thought we were clear at meetings, where Pricing Assumptions were discussed and TIE were there, so there would be no reason for TIE not knowing about them and understanding them. Prior to contract close, there were various Pricing Assumptions that might have changed, but the main Pricing Assumption that was likely to change and result in a Notified Departure was the assumption that the design was fixed from the BDDI. I knew there would be a lot of Notified Departures, but not precisely how many or what their value would be. These matters were discussed by BBS and TIE prior to contract close. For BBS, those involved were Tom Murray, Richard Walker, Gary Dalton, Michael Flynn, Herbert Fettig, Ian Laing, and Suzanne Moir. On the TIE side it was Steven Bell, Jim McEwan, Andrew Fitchie and others by that time, and probably also Dennis Murray.
174. Pricing Assumption 3.4.1 of Schedule Part 4 concerned normal design development. An example of normal design development would have been if a bridge with a depth of 1 metre which, after getting into the detail, became a bridge with a depth of 1.1 metres. Another example would be if the bridge had 250 kilogrammes per cube of reinforcement in it when tendered but that went up to 255 kilogrammes of reinforcement per cube after detailed design. Changes of design principle, shape and form and outline specification were excluded. An example of a change in the "form" of design would be; if a bridge with bearings was changed to a bridge that had no bearings with a portal frame structure. An example of a change in the "shape" of design would be if a bridge was designed with a 20-metre span and it then needed a footway beside the tram track and went from 20 metres to 21.5 metres. If we had a specification not to build a bridge for tram impact, then the specification changed to allow for tram impact, derailing and marking the columns, then that would be a change to outline specification. I think this was the subject of adjudication at a later stage.

175. I note that Schedule Part 4 defined BDDI as the design information drawings issued to Infracore listed in Appendix H (**USB00000032** page 3) and that Appendix H is blank (**USB00000032** page 53). I am not sure why that list did not get completed because the drawings in BDDI were listed and contained in the Infracore proposals. In my view, there was no doubt that the drawings formed BDDI. These were the drawings which were on the five CDs that were issued to BBS on 25<sup>th</sup> November 2007. Perhaps the fact the drawings were not listed did cause problems. It meant that something went to adjudication that would otherwise have been crystal clear.

### **Post Contract Close – General**

176. After Infracore contract close in May, I was on the project full time until August 2008 when I moved across to the M80 bid. The work done on the design was the change from BDDI to the revisions of the design drawings at the time. MUDFA still being on site was also a challenge because we were dealing with lots of change while we were also trying to mobilise the job. That was not normal. There were also departures from some of the Pricing Assumptions at this time.
177. After novation of the SDS contract in May 2008 BSC tried to improve the design management process but there was little practical improvement. We applied our design management to SDS. David Taylor had been the Design Manager in the tender phase, Steffan Rotthaus became Design Manager (Engineering Manager) shortly after award. The design management team were from BB. This was around the time that I left the project. Little design was completed in the time I was there.
178. I am aware of the BSC Period Report to 16 August 2008 which stated, in relation to design that continuing uncertainty in some critical areas together with lack of progress on critical approvals was likely to impact on procurement and construction commencement (**BFB00056434** page 3). Detailed design was required to procure the materials. You might need something that fixes

the shape of a structure or you might need special earthworks materials. The poor performance by SDS was coming to fruition. The report should record the main critical areas and the outstanding critical approvals.

179. I do not think the disputes relating to Notified Departures got to the point of delaying construction works at this early stage. However, there were delays in the production and completion of design.
180. I am aware that the Infraco Construction Programme of 29 April 2008 in Schedule Part 15 of the Infraco Contract (**USB00000079**) stated that it was based on version 26 of the SDS design programme. At Infraco contract close in May 2008 the SDS design programme was at version 31. There were several revisions of the Construction Programme and to explain the main dates and why the programme changed over time would take some time. That is what happens with programme analysis. A revised programme was not agreed until December 2008, which was after my departure. I cannot comment on subsequent changes.
181. I note the reference in the BSC Period Report to 31 January 2009 (**CEC01103816** at page 3) to the 12 week look-ahead programme. This was a standard management tool and was used to administer a big contract programme. 12 weeks were picked out and it rolled forward. It was simply an extract of the main contract programme.
182. The disputes that arose between TIE and BSC after contract close in May 2008 related to interpretations of the Infraco contract. These largely took place after my departure. The first dispute that went to adjudication was in relation to the Hilton car park at Edinburgh Airport. This was a small value adjudication on accommodation works. I was aware of that because I was working for BB. I do not know who at BB decided the position or strategy in relation to the disputes generally. In my recollection, there was no difference between the German and the UK strategy at BB. In my view, BB were in the right. The

disputes were frustrating in relation to carrying out works. I was not involved in the detail by that stage, however.

183. I am aware that approximately 738 INTCs were intimated by BSC between contract close in May 2008 and the Mar Hall mediation in March 2011. I was only involved in the early ones. The only serious involvement I had with preparation and negotiation was in relation to the first estimate, which involved moving the project office from the depot to Edinburgh Park. Others that were involved from BSC were David Gough, Tom Murray and Graham Conway.
184. The main reasons for the various changes to the contract were design and MUDFA. Nearly all of this flowed from the Pricing Assumptions. The same causes applied to the increased costs and delays caused by the INTCs and TIE Change Notices. Most of the INTCs arose from the Pricing Assumptions in Schedule Part 4.
185. I am aware that TIE made allegations against BSC during the subsequent disputes. This took place after my departure. I can only comment on these allegations in a limited manner, but I am aware of the following allegations, and would comment as follows:
- That BSC failed to mobilise timeously. In my view, our mobilisation would be open to some criticism, but the mobilisation never affected overall progress. It was never a critical delay. We were recruiting people to come into the key roles. We were recruiting sub-contractors. We had a good framework of pre-agreed sub-contractors. Ultimately, it was arranged that the sub-contractors would do packages of work. Farrans would do the section from Edinburgh Airport to the depot and Barrs would do the depot etc. These allegations were another example of continuing pressure being exerted by TIE, just as they had done during the negotiation period.
  - That BSC unreasonably refused to commence works involving a variation until a price had been agreed for the works as varied. I do not

know if this allegation related to Notified Departures. In relation to Notified Departures, we followed clause 80.13 and did not start work until the price was agreed. That is what clause 80.13 says.

- That BSC carried out very little by way of on-street works under the Infraco contract with very few exceptions. I cannot comment on this as it occurred after my departure.
- That BSC stopped all work in a section if all utility diversion works in that section had not been completed. I cannot comment on this as it occurred after my departure.
- That BSC failed to manage and progress the design process properly after SDS novation. We did no worse than TIE in managing SDS but it certainly continued to be difficult.
- That BSC failed in its duty to take all reasonable steps to mitigate delay to the Infraco works. It is not surprising that TIE would make this allegation. I cannot comment on this as it occurred after my departure.
- That BSC intimated an unreasonably high number of INTCs. I cannot comment on this as it occurred after my departure.
- That BSC delayed in providing estimates for the INTCs. I cannot comment on this as it occurred after my departure..
- That the estimates that were provided by BSC were lacking in specification and/or failed to demonstrate how Infraco would minimise any increase in costs. I cannot comment on this as it occurred after my departure.
- That the amounts in the estimates were often excessive. I cannot comment on this as it occurred after my departure.

## **Events between May and December 2008**

186. I am aware of the Technical Queries (TQs) **(CEC00793596)** BSC issued to SDS in May, June and early July 2008. It was normal for a number of TQs to be issued when SDS became ours to manage. The process commenced immediately on novation, which was normal, in my experience. The process was intended to be quite rigorous. We raised the TQs, with SDS responding if

there were any queries, which we would answer in a further response. The TQs should all have been closed. The effect of the response from SDS was to close the TQ, unless there was another iteration in which case the second response closed it.

187. In May, June and early July 2008 BSC intimated approximately 50 INTCs (**CEC00793598**). The cause of these was the Pricing Assumptions. It took us until 22 June 2008 to say that Issued For Construction (IFC) dates and the design programme were not as specified in the Schedule 15 programme, and the consequence was a number of INTCs. The main INTCs in terms of value and importance were those which related to design, including the one for the Hilton car park, which went to adjudication. This was related to accommodation works and was of low value. It did not relate to what BB believed were the "real" issues.
188. I am aware of the minutes of a meeting between me and Steven Bell held on 10 June 2008 to discuss TIE's concern over BSC's mobilisation and other issues (**DLA00001673**). I am also aware of the emails on 18 and 20 June 2008 between Richard Walker, Willie Gallagher and Steven Bell (**CEC01345997**) raising further issues, and of Steven Bell's email of 27 August 2008 expressing his concerns in relation to slow mobilisation (**CEC01165082**). The speed of mobilisation was to be expected in a project of this type. We were criticised. To try to resolve the issue, we brought in people from North Wales and transferred people in from BB around Europe. This did not satisfy Steven Bell.
189. I am aware of an email from Stefan Rotthaus of BB to Robert Bell of TIE dated 11 August 2008 which attached a road design flowchart (**CEC01164801**) and the reply from Robert Bell dated 20 August 2008. Robert Bell advised that a number of significant concerns required to be addressed. I was not copied into this email, which was sent right at the end of my time on the project. At the time, I was handing over to Colin Brady, the new project director, who was copied into the emails.

190. I left the tram project for the M80 Bid in August 2008. In December 2008, I was involved in a road traffic accident in December 2008. My only involvement after August 2008 was to attend various meetings, and to attend the adjudications to provide evidence. Subsequently, I also produced the witness statement of 19 April 2010 which I have already described (**CEC00351749**). As a result, I was not aware of Richard Walker's letter to Willie Gallagher dated 13 October 2008 (**DLA00001671**); the BSC Period Report to 8 November 2008 (**CEC01169379**); the internal TIE email from Damian Sharp to Steven Bell dated 18 November 2008 (**CEC01125370**, page 2); or the BSC Period report to 6 December 2008 and TIE's table of comments on that report (**CEC01121557** and **CEC00423799**, pages 13-20).

### **The Project Management and Governance of the Project**

191. My general view on Project Management and Governance is that TIE's management was awful. They needed to understand their contract and apply it and they quite patently did not. They were badly led. The establishment of TIE was, in my view, a fundamental mistake. CEC should have appointed a Project Management Specialist. TS should also have been involved throughout, at all stages, rather than being kept at arm's length.
192. The only individual upon whom I can comment is Willie Gallagher. He was poor, and would do anything to keep close to budget. He misled CEC. His job was to bring the team together for procurement and I did have concerns over his performance, particularly in relation to procurement.
193. In relation to the main contractors, Siemens were good. PB, however, were poor. This may have been because they were under budget control from TIE.

### **Final Comments**

194. Compared to other projects I have worked on I would describe the Edinburgh Tram Project as disappointing. I think TIE were responsible for mis-



management. They were outside their comfort zone with a bad procurement experience and a bad delivery experience. The Tram did get completed and it is a great final result and great tourist attraction but it was the worst project I have worked on in all areas: procurement, tendering, mobilisation and delivery, with delivery being the worst area.

195. I would say the main reason there was a failure to deliver was the poor leadership at TIE. There was just no experience in client management. This might have been avoided if a company had been used to manage the process. Bechtel, for example, could have been used. It may have ended up being £700 million to run the job but it might have been worth finding that out earlier. An experienced company would have prevented the poor management and lack of control that led to the disputes and delays which only added to the costs.

I confirm that the facts to which I attest in this witness statement, consisting of this and the preceding 56 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..... 18.06.2017 .....

Please note :- Ian Laing's (Present Mason's) name is wrongly spelled on page 20. Ian Lang (on page 20) is the same person as Ian Laing.

