IN THE MATTER OF THE EDINBURGH TRAMS STATUTORY INQUIRY

WITNESS STATEMENT OF MARTIN HEINZ FOERDER

PROVIDED ON BEHALF OF BILFINGER CONSTRUCTION (UK) LIMITED

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1. **INTRODUCTION**

1.1 My name is Martin Heinz Foerder. I am 52 years old and reside in [redacted] [redacted] Germany. I am currently employed by Implenia Construction GmbH as Head of Large Projects and am specifically attached to the Scandinavian Business Unit. I am currently involved in projects in Norway and Sweden, including Odenplan, Södra, NS 14, Kvarnsholmen, Johannelundtunnel (all in Stockholm), Vagstrandtunnel, Tresfjordbridge, Harpe Bridge, Farris Bridge and Eiganestunnel (all in Norway). In addition I am responsible for tendering to acquire new projects in both countries. I have taken over the position of Managing Director for Scandinavia from 1 June 2014. My currently employer, Implenia, purchased the construction division of Bilfinger SE in March 2015 which is when I transferred from working for Bilfinger to working for Implenia.

1.2 Prior to March 2015, I was employed by Bilfinger for almost 28 years. I started with Bilfinger in 1987 in the Head Office in Wiesbaden. From 1992 until 1997 I was Site Manager for the Metro Project Chungho Line in Taipei, Taiwan. In 1997 I was transferred as a Site Manager/Construction Manager to the Metro Project Chalaem in Bangkok, Thailand and became the Project Director in 2000. I successfully completed this Project which was handed over and went into operation in 2004. From 2005 until February 2009 I was the responsible Project Director for Malmö City Tunnel in Sweden. Between March 2009 and May 2014 I was the Project Director on the Edinburgh Trams Network ('the Project' or 'ETN') for Bilfinger Construction (UK) Limited ('BCUK') (the company was previously called Bilfinger Berger Civil (UK) Limited and prior to that Bilfinger Berger Construction (UK) Limited). I was asked to join the Project as Project Director to replace Colin Brady who was the previous Project Director for BCUK. I joined the Project in March 2009. Colin remained on as my deputy with the new title of Technical Manager. Due to the number of commercial issues being raised, it was agreed that I would focus on these and Colin would concentrate on technical issues. Colin left the Project in 2010.

1.3 In terms of the arrangement I have with my new Employer, I have undertaken to assist in relation to the Edinburgh Trams Inquiry ('ETI') based on the TSA (Transition Service Agreement) between Implenia & Bilfinger. I believe that I can assist the Inquiry as the former Project Director and that I am able to contribute to the matters which concern the terms of remit of the Inquiry. A set of questions which the ETI would like to discuss with me were contained in a letter to BCUK's lawyers, Pinsent Masons, dated 18 June 2015. In preparing this witness statement, I have taken on board those questions and have answered them as best as I am able.

2. EXECUTIVE SUMMARY

2.1 This Witness Statement reflects the many issues which arose during my involvement in the Project which covered a period of over 5 years.

2.2 To summarise my views in relation to the terms of reference of the Edinburgh Trams Inquiry, I consider that the reasons that the Project was delayed, cost considerably more than budgeted and delivered less than the original scope, are as follows:

2.3 In terms of the Infraco Contract, Transport Initiatives Edinburgh ('tie') retained many risks in respect of issues which the Infraco had not been able to price at the time of entering into the Infraco Contract.

2.4 In particular, tie retained the risk of delays to the preceding MUDFA ('Multi Utility Diversion Framework Agreement') Works, required to move utilities out of the line of the tram route. tie entered into a separate contract with the MUDFA Contractor and there was no cross-over or interrelationship with the Infraco Contract at all.

2.5 Although the designer (SDS) had been novated from tie to the Infraco, tie retained the risk in respect of design changes between the design which the Infraco had priced (the Base Date Design Information ('BDDI')) and the final design (the Issued for Construction ('IFC') design).

2.6 tie also retained the risk of obtaining third party approvals which had not been finalised prior to entering into the Infraco Contract, and many other matters which were set out in Schedule Part 4 to the Contract (in a series of Pricing Assumptions).

2.7 All of these risks subsequently materialised. The MUDFA Works were seriously delayed and had a huge impact on our ability to carry out the Infraco Works. The problems caused by the delayed MUDFA Works were compounded by tie failing to update us on these delays and failing to advise when we could expect the unhindered access to site that we were contractually entitled to. Likewise, the design changed significantly between BDDI and IFC stage. There were significant delays in obtaining

third party approvals and consents. All of these matters (and particularly the MUDFA delays) contributed to cause a huge delay to the Programme for the Infraco Works.

2.8 The Pricing Assumptions effectively excluded these risks from the Construction Works Price. Where the risks excluded by these Pricing Assumptions materialised, this resulted in the occurrence of Notified Departures which were to be administered and valued in accordance with particular provisions in the Infraco Contract (all as per Schedule Part 4). tie refused to accept that it retained responsibility for many of these risks. tie had maintained in a report to the City of Edinburgh Council ('CEC') prior to the Infraco Contract being signed, that the Contract was 95% fixed price. This was not true.

2.9 The Infraco Contract is clear that until the valuation of the changes introduced by these risks materialising was agreed (and tie had issued a tie Change Order reflecting the additional time and money that Infraco was entitled to), Infraco was not permitted to proceed with the affected works. tie portrayed this as Infraco refusing to carry out works and accused us repeatedly of 'delinquent' behaviour. Whilst we had been carrying out certain work on a good will basis (without agreement from tie on the time and cost implications of changes), we subsequently ceased all such good will working in September 2010 when it became abundantly clear that tie would never accept the extent of our entitlements in relation to these works.

2.10 Infraco was found to be correct in its interpretation of the key provisions of the Contract on this issue. During the period from late 2009 until March 2011, there were 12 adjudications between Infraco and tie which dealt with the major issues of dispute between us, mainly focusing on the correct interpretation of the Infraco Contract. These adjudications on key issues of contractual interpretation and principle, were almost entirely determined in Infraco's favour. Despite this, tie still refused to accept those rulings. This prevented agreement on a large number of changes and exacerbated and compounded the delays to the Programme which had already been experienced. tie took an entirely adversarial approach in all of its dealings with the Infraco.

2.11 Throughout the Project and particularly during the course of 2010, tie engaged in a series of activities intended to wear the Infraco down. This included its use of the media to portray Infraco (and BCUK in particular) in a very bad light; engaging in sending huge amounts of correspondence which were highly critical of many things including our 'behaviour'; and sending us a series of Remediable Termination Notices in which it threatened to terminate the contract for a whole host of reasons (some of which were entirely trivial and others which went to the heart of the differences in contractual interpretation between us). Throughout this period, we tried to look at ways of delivering the Project to meet the budget which was available to tie. Ultimately every attempt we made to find a breakthrough was brought to an end by tie.

2.12 It was only when there was a change within CEC with the arrival of a new Chief Executive, that the prospect of mediation on the overall dispute was raised. Following the mediation in March 2011, we successfully entered into negotiations to discuss with CEC and tie, what could be delivered within the budget available to them, and the constraints and other difficulties which would need to be resolved in order for us to proceed.

2.13 This resulted in a renegotiation of the Contract which was finalised in September 2011. This involved a change in governance and management procedures, with CEC effectively replacing tie and a Project Manger being brought in to administer the Project going forward. The scope of the Project was truncated with the tram now terminating at York Place.

2.14 After mediation and this renegotiation of the Contract, there were no further disputes and we managed to deliver the Project ahead of the revised Programme and to the revised total Budget which had by that time been agreed.

2.15 In short, I believe that it was the delay to the preceding utilities diversion works, coupled with tie's fundamental refusal to acknowledge the risk that they expressly retained under the Infraco Contract, and thereafter their inability to properly manage the Infraco Contract, which ultimately led to all of the difficulties which we experienced.

3. BACKGROUND UNDERSTANDING OF THE CONTRACT

3.1 I joined the Project almost 10 months after the Infraco Contract had been signed and work had commenced. I had very little knowledge about the Project at this time. I was requested by my superior in December 2008 to take over the Project Director role in Edinburgh, due to the contractual and commercial difficulties the Project was facing even by this time. It was felt that additional resource was required to help address some of these issues. Colin Brady, who had previously been the Project Director, remained as my deputy and Technical Manager. In late January 2009, I visited Edinburgh for three days to get a briefing about the Project by Colin and Richard Walker, at that time the incumbent Managing Director of BCUK. I was then on holiday for the month of February 2009. Prior to my start I was in general terms aware about the contractual difficulties which had arisen, but not the specifics.

3.2 As I was informed, BCUK were in a consortium with Siemens plc ('Siemens') and Construcctiones Y Auxiliar de Ferrocarriles S.A ('CAF') to build the Edinburgh tram network. BCUK would carry out the civil engineering works, Siemens were the system designers and system providers and CAF were building and providing the trams. Collectively we were known as Infraco. The original consortium and tendering party had been BCUK and Siemens (sometimes referred to as BBS) but at the request of our client, Transport Initiatives Edinburgh ('tie'), CAF had been novated to the consortium at the same time as the construction contract ('the Infraco Contract' or the 'Contract') was signed on 14 May 2008.

3.3 tie was a limited company set up (and wholly owned) by the City of Edinburgh Council ('CEC') to deliver a number of projects, of which the Project was one. Whilst CEC were guarantors of the Project, Infraco had no direct contractual relationship with CEC.

3.4 The design for the Project had been originally procured by tie directly from the SDS Provider (Systems Design Services). The SDS Provider ('SDS') was made up of a number of engineering firms led by Parsons Brinckerhoff. The original tie programme

provided that the SDS design would have been finished by the time that the Infraco contract was awarded. It was not complete and we had concerns at the lack of design detail at tender stage. As a result, the SDS Provider was novated to Infraco, with Infraco completing the design and carrying out the construction of the ETN.

3.5 tie separately contracted with Carillion plc (previously known as Alfred McAlpine plc) to carry out what was known as the MUDFA ('Multi Utility Diversion Framework Agreement') Works. These works were to have been completed prior to the Infraco Works commencing. They were not complete and this was a major issue for us which I discuss throughout this statement.

3.6 When I joined the Project, tie's interim Chairman was David Mackay. He had replaced the previous Chairman Willie Gallagher who had resigned in November 2008. Shortly after I joined (in May 2009), Richard Jeffrey took up the post of Chairman of tie. He resigned in 2011. From the point I joined until the point of mediation, the Project Director was Steven Bell. He was supported by Frank McFadden as Construction Director, and Susan Clark as depute Project Director.

3.7 For BCUK, I was supported by a Contract Manager, Kevin Russell, David Gough as Commercial Manager and by Colin Brady, Technical Manger, until he left the project in 2010. Richard Walker was the Managing Director of BCUK and remained in that position until 2011 when he left the company. We had a large team of additional commercial and technical support.

4. RELATIONSHIP WITH BILFINGER HEAD OFFICE

4.1 I was never employed by BCUK and remained at all times, a German employee of the parent company who was seconded to BCUK for the duration that I was Project Director on the Edinburgh Trams Project. The management team in Wiesbaden were concerned about this Project and I reported back to them, through Richard Walker. We were reporting directly to Mr Joachim Enenkel, who was the Managing Director of the Major Projects Division in Europe and then to Dr Keysberg (when Mr Enenkel moved to a new position within Bilfinger SE) in relation to the key issues which arose on the Project and which I discuss below. In addition, this was a large project for BCUK to be involved in and management had clearly to sign-off on the decision to enter into the Infraco Contract in the first place. It would have been the Bilfinger SE board in Mannheim who provided the final sign-off on the decision to enter into the Infraco Contract.

4.2 Richard Walker was also separately reporting to the German management team. All lines of communication were open at all times, and on occasion I would also report directly to Germany as I was on a direct secondment. We had regular monthly reporting back to Germany, but our discussions with the management team were much more regular than this, particularly at certain critical stages of the Project. The management team in Germany were very much aware of and took part in the decisions which were made on the project. We could not and did not operate independently from Head Office. They did become more heavily involved where they thought it necessary to do so, and there was quite a bit of management and guidance from senior management at the critical stages of the Project. Dr Keysberg in particular engaged in direct communication with David Mackay, at certain times in the Project. I was pleased to have Dr Keysberg's support in relation to the many issues which arose, but at times, this was clearly not appreciated by tie.

4.3 In addition, the Bilfinger in-house legal team in Germany were very much involved in the Project and worked closely with our lawyers in Edinburgh, Pinsent Masons. After the mediation which took place in March 2011, the Project was considered to be back

on track and management were much more 'hands off' in terms of their day to day involvement.

5. THE INFRACO CONTRACT

5.1 As I understood it, BCUK had experienced problems from almost the first day of the Project. There seemed to be a complete misalignment between BCUK and tie, as to the meaning and operation of certain key aspects of the Infraco Contract which the parties had entered into.

5.2 As it was explained to me and as I subsequently came to understand, the Infraco Contract contained some unusual provisions which had been required due to the remaining 'unknowns' at tender stage. Most of these risks were contained in Schedule Part 4 of the Contract. Schedule Part 4 is entitled 'Pricing' and within it, certain assumptions are made about various matters for the purposes of arriving at a Contract Price, even though it was known that these assumptions were not correct. For example, Schedule Part 4 assumes that all of the preceding MUDFA (Multi Utility Diversionary Framework Agreement) Works were completed before the Infraco was to commence its works. It also assumes that the design will be substantially complete, even though it was known at tender stage that this was not the case. These assumptions, and many more, are included in Schedule Part 4. The Infraco Contract is clear that Schedule Part 4 takes precedence over other parts of the Infraco Contract (Clause 4.3 providing that *'Nothing in this Agreement shall prejudice the Infraco's right to claim additional relief or payment pursuant to Schedule Part 4 (Pricing*)'). This is unusual clause because in a design and build contract, the primary obligation is usually to build to the Employer's Requirements.

5.3 As it was explained to me, BCUK had known during the tender negotiations that the MUDFA Works were incomplete and that the design was also incomplete. There were further uncertainties such as the design not having been integrated with the BCUK and Siemens proposal, third party approvals not having been obtained, and concerns about the ground conditions in various locations (these are just some of the issues which I understood had concerned the BCUK team involved in the tender). The problem that this had given the team involved at tender stage was how to arrive at a price for the works. It was because of the need to have a baseline which BCUK and

Siemens (as the other Infraco member at that time) could price, that the pricing assumptions which were included in Schedule Part 4 were arrived at. I had understood that, notwithstanding the uncertainties that continued to exist, tie were insistent that the contract be signed when it was. This was certainly earlier than I would have recommended given these ongoing uncertainties. However, I understood that the Infraco tender team had reassured themselves that the risk allocation and the protection in Schedule Part 4, allowed Infraco to enter into the Contract at the time that it did.

5.4 The price had been arrived at by 'assuming' that certain facts and circumstances were true, when in reality all parties knew that they were not correct. After the Infraco Contract had been signed, and if the facts and circumstances differed from what had been 'assumed', the intention was that this would entitle the Infraco to more time and money. This is explained in the body of Schedule Part 4 itself, as follows:-

"3.2.1 *It is accepted by tie that certain Pricing Assumptions have been necessary and these are listed and defined in Section 3.4 below. The Parties acknowledge that certain of these Pricing Assumptions may result in the notification of a Notified Departure immediately following execution of this Agreement. This arises as a consequence of the need to fix the Contract Price against a developing factual background. In order to fix the Contract Price at the date of this Agreement certain Pricing Assumptions represent factual statements that the Parties acknowledge represent facts and circumstances that are not consistent with the actual facts and circumstances that apply. For the avoidance of doubt, the commercial intention of the Parties is that in such circumstances the Notified Departure mechanism will apply.*"

5.5 There were 43 Pricing Assumptions in total, covering a wide variety of 'unknowns' which Infraco had not been able to price. The key pricing assumptions concerned design and completion of the MUDFA Works: for pricing purposes it was 'assumed' that these matters were completed when in reality, the parties knew that they were not. The key Pricing Assumptions were as follows:

"3.4 Pricing Assumptions are:

3.4.1 The Design prepared by the SDS Provider will not (other than amendments arising from the normal development and completion of designs):

1.1 in terms of design principle, shape, form and/or specification be amended from the drawings forming the Base Date Design Information (except in respect of Value engineering identified in Appendices C or D to this Schedule Part 4);

.....

For the avoidance of doubt normal development and completion of designs means the evolution of design through the stages of preliminary to construction stage and excludes changes of design principle, shape and form and outline specification...

2. Design delivery by the SDS Provider has been aligned with the Infraco construction delivery programme as set out in Schedule Part 15 (Programme).

3. The Deliverables prepared by the SDS Provider prior to the date of this Agreement comply with the Infraco Proposals and the Employer's Requirements...

24. That in relation to the Utilities the MUDFA Contractor and/or Utility shall have completed the diversion of any utilities in accordance with the requirements of the Programme save for utilities diversions to be carried out by the Infraco pursuant to the expenditure of the Provisional Sums noted in Appendix B...."

5.6 The operative clause in Schedule Part 4 is clause 3.5 which provides as follows:

"The Contract Price has been fixed on the basis of inter alia the Base Case Assumptions noted herein. If now or at any time the facts and circumstances differ in any way from the Base Case Assumptions (or any part of them) such Notified Departure will be deemed to be a Mandatory tie Change requiring a change to the Employer's Requirements and/or the Infraco Proposals or otherwise requiring the Infraco to take account of the Notified Departure in the Contract Price and/or Programme in respect of which tie will be deemed to have issued a tie Notice of

Change on the date that such Notified Departure is notified by either Party to the other. For the avoidance of doubt tie shall pay to the Infraco, to the extent not taken into account in the Estimate provided pursuant to Clause 80.24.1, any additional loss and expense incurred by the Infraco as a consequence of the delay between the notification of the Notified Departure and the actual date (not the deemed date) that tie issues a tie Change Order, such additional loss and expense pursuant to Clause 65 (Compensation Event) as if the delay was itself a Compensation Event".

5.7 To unpick some of the terminology here, Base Case Assumptions were defined as:

"The Base Date Design Information, the Base Tram Information, the Pricing Assumptions and the Specified Exclusions".

5.8 The Base Date Design Information was defined as the design as it stood and as it had been issued to Infraco at 25 November 2007. This date had been chosen to freeze the design which Infraco could price, due to the fact that the design was evolving all of the time during the tender phase. The Base Tram Information was really concerned with CAF, and was not so relevant from a BCUK perspective. The Pricing Assumptions were the 43 numbered items which I've referred to above. In addition, clause 3.3 of Schedule Part 4 contained 'Specified Exclusions' being other things which were specifically excluded from the Contract price (the Construction Works Price), and included utility diversions (other than a small amount which Infraco had undertaken to carry out) and ground conditions which could not reasonably have been foreseen from ground conditions reports available pre-tender.

5.9 Notified Departures were defined as being "*where now or at any time the facts and circumstances differ in any way from the Base Case Assumptions save to the extent caused by a breach of contract by the Infraco, an Infraco Change or a Change in Law*". So as clause 3.2.1 envisaged, the price was based on a statement of a factual position (the Base Case Assumptions) which did not reflect the actual facts and circumstances which the parties knew of. In these circumstances, a Notified Departure would occur and this was deemed to be a Mandatory tie Change, to be dealt with via

Clause 80 of the Contract, and requiring tie to issue a tie Change Order (once the cost and time impact of each Notified Departure had been agreed).

5.10 As can be seen from the above, there are some highly unusual clauses in the Contract which dealt with BCUK's concerns about many things including the incomplete design and the incomplete utility works. When I arrived on site, the position in relation to both of these matters was as follows:

5.11 **The position in relation to design**

5.12 The design which had been priced, was the design as it stood at 25 November 2007 – this was the 'Base Date Design Information ('BDDI')' which is referred to above. Any changes in *'design principle, shape, form and/or specification'* from this date, would amount to Notified Departures entitling the consortium to additional time and money (via the mechanism set out in Clause 80 of the Infraco Contract).

5.13 When I arrived on site, there were many Notified Departures and Infraco Notifications of tie Change ('INTCs'), which were not acknowledged as such by tie. For example, in relation to design changes which related to changes of *'design principle, shape, form and/or specification'* tie refused to accept that these were Notified Departures and that they entitled the Infraco to additional payment. tie's position seemed in the majority of cases to simply be that all changes were 'design development' which Infraco were obliged to carry out in any case.

5.14 These BDDI to "Issued for Construction" ('IFC') changes were brought about due to the progression of the design from BDDI status to IFC status. The design had been progressed in this period by SDS and moved on from a preliminary or "Issued for Approval" design status to an "IFC" status. In a lot of instances, the IFC design had changed considerably from that shown in the BDDI information. Examples of these include larger diameter and deeper drainage pipes due to the incorporation of third party requirements necessary for approval; different foundation details following detailed analysis of actual ground conditions and an increase in number or type of

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lighting columns following CEC Approval etc. These issues are covered in more detail below in section 10 of my Witness Statement where I discuss design.

5.15 The impact of this was that there were a growing number of disputes at even this early stage in the project. When I arrived, approximately 350 INTCs had already been raised. These related to changes across the entire contract site. Of those which related to design changes, early ones included Carrick Knowe and Gogarburn. I mention these because they are the first matters which dealt properly with the impact of design changes which were referred to adjudication. It was tie who referred these matters to adjudication in an attempt to undermine the position which the Infraco had adopted, which we believed was in accordance with the Contract.

5.16 These adjudications, which commenced in September 2009, dealt directly with whether changes which had occurred between the Base Date Design Information (BDDI) and the Issued for Construction (IFC) information, were properly to be considered as Notified Departures. tie's position was that the identified changes in respect of the design at each of these locations (Carrick Knowe and Gogarburn) were simply the normal evolution of the design which Infraco was obliged to carry out in order to meet its design obligations in terms of the Employer's Requirements. Whilst we acknowledged that we were of course obliged to develop and complete the design and construct the IFC design, that was not the real issue: the issue was whether we were entitled to additional payment for doing so, given the Pricing Assumptions which had been agreed and were contained with Schedule Part 4.

5.17 I summarise the result of these two adjudications, and all 12 adjudications which resulted in a decision, in Appendix 1 to this statement. In summary however, the adjudicator on these two adjudications determined that a distinction had to be made between the general obligation to meet the Employer's Requirements and a commercial agreement that reflects the fact that the detailed design requirement for that obligation had not been completed at the date of the contract agreement, that is, that there was a distinction between Infraco's obligation to design the works and the price that they were to be paid. He also highlighted clause 4.3 of the Infraco Contract

which stated that *"nothing in this agreement shall prejudice the Infraco's right to claim additional relief or payment pursuant to Schedule Part 4 pricing'*. In other words, the provisions of Schedule Part 4 took precedence over any other part of the Infraco Contract, as far as Infraco's entitlement to payment was concerned. He therefore determined both the Carrick Knowe and Gogarburn disputes in favour of Infraco. This was the first real test of the Schedule Part 4 Pricing Assumptions and we were very relieved that it was determined in Infraco's favour, albeit that tie appeared subsequently not to accept that finding. I cover this in more detail below.

5.18 **The status of the MUDFA Works**

5.19 As I've mentioned above, pricing assumption 24 related to the MUDFA Works. In other words, the price for the contract had been based on the MUDFA Contractor having *"completed the diversion of any utilities in accordance with the requirements of the Programme save for utilities diversions to be carried out by the Infraco pursuant to the expenditure of the Provisional Sums noted in Appendix B...."*

5.20 In addition, the Contract also contained Programming Assumptions in Schedule Part 15 b), one of which states *"The programme is based on MUDFA having completed all works and all utilities being diverted that would conflict with INFRACO operations by the following dates"* [there then followed a series of dates by which the MUDFA Works were to have been completed for each of the sections of the Project, being Sections 1A, 1B, 1C, 1D, 2A, 5A, 5B, 5C, 6 and 7A].

5.21 When I joined the Project and was being brought up to speed on progress to that point in time, it was clear that the MUDFA Works were very far from being complete. This was having a real effect on progress on all of the works (in particular the on-street works although large sections of the off street works were also impacted – e.g. Depot, Airport, South Gyle Access Bridge etc) and there were three main aspects to this:

5.21.1 **The physical aspect**: we could not physically proceed with our works where utilities were still in place beneath the ground (in positions that clashed with

the tram infrastructure), when these were supposed to have been removed or relocated by tie's contractor MUDFA before we commenced works.

5.21.2 Our understanding and the position on which the tram infrastructure design was taken forward was based on the assumption that any utilities within the area required for the installation of the tram infrastructure (i.e. the tracks, OLE foundations, ducting and drainage etc.) would be diverted by MUDFA in advance of our works. This would allow Infraco to have a "clear corridor" within which to install the tram infrastructure. Our price and programme was based on this understanding. The "utility free zone" was understood to be the width required to install the tram infrastructure (trackform, OLEs, ducting, drainage etc.) to a depth of 1.2m below finished road level. The exception to this was at the location of tram structures. At structures, the utilities would be diverted clear of the area required for the structure including its foundations. Taking this further, it was assumed at the commencement of the project that the "utility free zone" would be clear of utilities to allow a straight forward installation of the tram infrastructure.

5.21.3 The BCUK works involved initially excavating to a depth of approximately 1.2m below existing ground levels and ensuring the ground conditions at this level met the design requirements. This meant that on occasion ground improvement works were required. This entailed deeper excavations (a further 0.3m to 0.6m) and subsequent reinstatement to formation level with imported granular materials. The width of the excavation differed between on and off-street for various reasons including traffic management requirements; however, the minimum width would be of the order of 8.0m). Following this, the ducting and drainage were installed and the initial track improvement layer constructed. Once the track improvement layer was in place, Siemens would place the sleepers, rails and fixings prior to the track slab works being carried out by BCUK. Following this, the final adjustments to the rails were carried out by Siemens to allow the coverage layer and road

pavement tie in works (where applicable) to be carried out by BCUK. The joint sealant works would then be carried out by Siemens to complete this element of the works.

5.21.4 In simple terms, if the utilities were still located within what was supposed to be the 'utility free zone' we did not have the clear corridor which we needed in order to perform our works. The MUDFA Works were nowhere near completed when I arrived on site and in reality, there were few areas where we had unhindered access to proceed with our works in a sensible and economically viable way. tie were very keen that we work wherever we could, even in extremely small sections, in order to be seen to be making progress, and even where the MUDFA contractor was still present. We believed that working in extremely small sections was not an economic way to proceed and further, that it was not in accordance with the Infraco Contract. In terms of Clause 18.1.2, tie had granted to Infraco *"a non-exclusive licence to ...enter and remain upon the Permanent Land for the duration of the Term and an exclusive licence to ...enter and remain upon the Designated Working Area for the duration of the time required (pursuant to Schedule Part 15 (Programme)) for completion of the Infraco Works to be executed on such Designated Working Area..."*. This meant that we were entitled to exclusive access, with no other contractors present, to the key areas of the site where we planned to carry out works, during the periods noted in our construction programme (which was included within Schedule Part 15). The interpretation of this clause of the Infraco Contract became a real bone of contention between us in relation to an adjudication which subsequently took place (the MUDFA adjudication which I deal with in further detail below).

5.21.5 Despite having this right to exclusive access, and despite the assumption that all MUDFA Works would have been completed by the time we were due to commence our civil works on site, Infraco had tried to be accommodating

and to work around the MUDFA Contractor (Carillion) who was very much still on site. One such area where this occurred was at Leith Walk. As I was arriving on the Project, it was explained to me that in relation to Leith Walk, we had tried to proceed with our works at tie's insistence despite the fact that the MUDFA Contractor was still present and performing its works. It was very inefficient to work around other contractors and large areas of the site were effectively sterilised while utilities were diverted which would allow us to proceed. Working in very small areas of the site at any one time is very inefficient. There is very little working space and hence resources tend to be used in a disruptive and inefficient manner. My predecessor as Project Director (Colin Brady) had written to tie in relation to these particular works on Leith Walk. Ultimately this didn't work and tie instructed us on 6 March 2009 to cease work on Leith Walk in order to mitigate overall delay to the Project. We were told to concentrate efforts elsewhere and that in the meantime, we would be reimbursed our actual costs for the works carried out on Leith Walk at that time (to take account of the disruption).

5.21.6 **The design aspect**: In various areas, the design could either not be completed or constructed due to the incomplete MUDFA works. For example, at the location of South Gyle Access Bridge, tie had not diverted an existing sewer. The IFC design was issued on 23 May 2008 and the design highlighted a clash with an existing sewer. Infraco had planned to commence works in June 2008. This clash was raised to tie by Infraco. tie stated that the sewer was to have been diverted under MUDFA. However, this was not carried out as according to tie, the traffic management would not work. We were informed unofficially that the actual reason was that the tie team responsible for the MUDFA Works wanted to avoid the additional spend within their “budget” and wanted to pass the problem to the tie team dealing with the Infraco Contract to deal with. tie did not then issue a Design Change Order to amend the infrastructure design (as it should have done) and so no tangible Infraco works could proceed at this location. We attended

numerous meetings with tie at various levels in an attempt to resolve the issue. Each proposed solution put forward by Infraco (e.g. a review of traffic management proposal for diversion of the sewer, revised infrastructure design options etc.) was rejected by tie. The sewer was finally diverted by tie in late 2010. Following Mediation in March 2011, the IFC design was subsequently constructed by Infraco.

5.21.7 We were aware that tie had failed to relocate or remove all of the utilities from the "utility free zone". In some instances, tie had merely relocated utilities within the proposed "utility free zone" leaving future issues that would require to be resolved in order to construct the tram infrastructure works. I should note that this information was observed on site by our site teams. This was not advised to Infraco by tie as we would have expected. There was a requirement for tie to provide the MUDFA as-builts to Infraco under the Construction (Design and Management) Regulations. We subsequently requested the MUDFA as-builts from tie. When these were not issued by tie, we formally requested the as-builts in August 2009. These were necessary first and foremost, from a health and safety perspective to ensure that our site teams were informed as to likely utility positions prior to any digging works commencing. Secondly, they were required to allow Infraco and SDS to check for clashes between the tram infrastructure and utilities and attempt to mitigate issues (costs and delay) due to further conflicts by identifying these prior to commencing works. tie responded in March 2010 (some seven months later) and provided only a small percentage of as-builts with limited and inaccurate information contained therein.

5.21.8 **The contractual aspect**: The final reason why we could not commence works when Notified Departures arose as a result of the ongoing presence of utilities, was because of the way in which the Infraco Contract was intended to operate. All Notified Departures were to be dealt with through the tie Change mechanism which was contained at Clause 80 of the Contract.

Having notified of a tie Change via an INTC or having received a tie Notice of Change ('TNC'), Infraco were obliged to submit an Estimate outlining the cost and time implications of the Notified Departure. Clause 80.13 clearly states that, except in the situation where an Estimate had been referred to the Dispute Resolution Procedure for determination, *"the Infraco shall not commence work in respect of a tie Change until instructed through receipt of a tie Change Order unless otherwise directed by tie"*. Accordingly, until there was an agreement in relation to the cost and time implications of a particular Notified Departure and a tie Change Order was issued to reflect that agreement, we were not permitted to proceed and this compounded the delay suffered in relation to both the design changes that I've discussed above, and the delays caused by MUDFA.

5.22 The meaning of Clause 80.13 and the operation of the tie Change procedure, became a major bone of contention between us and tie and remained a significant issue until Infraco's interpretation of this clause was found to be correct at adjudication (the adjudication before Lord Dervaird in relation to the Murrayfield Underpass) in August 2010. Nevertheless tie did not acknowledge the decision up to the Mediation in March 2011.

5.23 The issues associated with incomplete design and incomplete MUDFA Works were exemplified by two issues which were ongoing when I joined the Project in March 2009. These issues were (i) the Depot; and (ii) the Princes Street Works.

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6. THE DEPOT AT GOGARBURN

6.1 One of the questions that the ETI posed in their letter to Pinsent Masons of 18 June 2015 concerned whether there was a delay in mobilising the workforce at the start of the Project in May 2008. I was never made aware of such an allegation during my time on the Project and the only thing I can think of is that this may relate to when we could have started work at the Depot.

6.2 The depot at Gogarburn where the trams were to be housed, was one of the first items scheduled for completion in April 2010. As at March 2009, this aspect of the Project had been seriously delayed as a result of both delays to the MUDFA Works and changes to the design of the depot.

6.3 A large water main ran through the location of the depot. It had not been moved in advance of the commencement of our works in this location, despite the contractual assumption that it should no longer have been there.

6.4 Schedule Part 4, Pricing Assumption 21 states: *'(ii) the depot excavation will be handed over to Infraco pumped dry with a firm sound formation'*. This is one of the Pricing Assumptions which I discuss above. tie issued a letter dated 12 December 2008 that stated access had been available to Infraco since 14 May 2008 (the date the Contract was signed). This was not correct because in February 2009, tie was still occupying the site at the west end of the Depot Area, attempting to divert the large water main but at the same time insisting we should commence our works. This issue resulted in an 11 month delay to the Project.

6.5 In addition, the Depot design had significantly changed since BDDI stage, due to the design being incomplete at this stage. There were design changes required due to third party requirements being received after 25 November 2007. For example, Scottish Water requirements resulted in changes to the external drainage design. I discuss the Development Workshop process in further detail below.

6.6 The works at the Depot were further impacted by tie not agreeing Notified Departures. Furthermore, tie had to come back to site to carry out remedial works to utility diversions as the initial works as installed by MUDFA (under tie's management) were not accepted by Scottish Water.

7. **THE PRINCES STREET WORKS MARCH 2009 TO NOVEMBER 2009**

7.1 The original programme which had been included in the Infraco Contract, showed that the works to lay the tram tracks on Princes Street, were to be carried out between January and August 2009. This time period was chosen because it was period between the winter festivals and the Festival in August. The programme duration for Princes Street assumed that all MUDFA works had been completed by this date and did not have any allowance therein for utility diversions or impacts to the construction work due to utility conflicts.

7.2 The Contract Programme had slipped at the point the Contract was signed. That was because Infraco had based its price on the Design Programme, version 26. However, by the time of contract execution, the design programme was at version 31. Infraco was already entitled to an extension of time of almost two months at the point of signing the Contract - again Schedule Part 4 provided Infraco with this right (Pricing Assumption 4).

7.3 tie initially disputed Infraco's entitlement to an extension of time which was a typical example of the way in which they approached the Contract. An extension of time would be a 'bad news' story and so their initial position had been that we could mitigate to mean that there was no delay. By the time I joined the Project, they had conceded this point however (I believe an award of an extension of time of slightly over 7 weeks was made in December 2008).

7.4 Although the Programme slipped, the dates for Princes Street were maintained due to the importance of carrying out these works at a time that would be least disruptive for the city.

7.5 However, by the time that the start of these works was approaching, it was clear that the MUDFA Works were not and would not be completed on time in advance of our works.

7.6 There were also ground condition issues at Princes Street due mainly to the poor condition of existing utilities (i.e. leaking water mains). This resulted in some sections with poor ground conditions requiring deeper excavations and extensive ground improvement works prior to installation of the tram infrastructure (a tie risk). This also had an impact on Programme as well as cost. There were also other Notified Departures which related to changes, the impact of which had not been agreed, and some elements of the design which affected Princes Street had not yet reached IFC stage or had reached IFC stage, however, the change from the design on which we had priced hadn't been agreed with tie. Although I wasn't involved in it, I understood that the continued presence of the utilities on Princes Street and these design changes, had led to Infraco raising INTCs which tie refused to accept. As noted above, at this time tie's approach was not to acknowledge how the Contract operated at all as regards Notified Departures.

7.7 In addition, tie refused to accept that the Notified Departure mechanism, and clause 80.13 of the Contract, meant that until tie had issued a tie Change Order in respect of the Notified Departure (reflecting the time and cost implications of the Notified Departure), Infraco was prevented from commencing work in respect of that change. The point about Princes Street was that we were going to have to commence works when the MUDFA contractor was still present. We were going to have to work around each other and carry out the works in much smaller sections, when in fact we were entitled to exclusive access to Princes Street. It is clear to see that this was going to be much more difficult and also that it would delay the period available to us to carry out those works. tie continued to refuse to accept the Estimate reflecting that situation. tie was also refusing to agree the value of the Notified Departures which related to BDDI to IFC design changes. Our concern was that if we proceeded to carry out all of these works, without agreement on the quantification of the impact of these changes, we would very quickly end up in a very bad situation financially. We were not obliged or permitted to start these works until the value of these Notified Departures had been agreed (with reference to clause 80.13). At this point, tie used the media to state that BCUK was refusing to proceed with the works because we had demanded £80 million

from tie before we would start. This was not true. In reality, BCUK was only doing what it was contractually required to do. This was one of the first major examples of tie using the media against BCUK in a very public way (dealt with in more detail below).

7.8 However, shortly after I joined the Project, we attended a meeting with tie to see if we could find a way through the impasse. By this point in time, Princes Street had been closed but no work was progressing and this was attracting a huge amount of media attention. We had a meeting with tie, at which Siemens and CAF were also represented and at which the senior members of tie were presented. We also had Pinsent Masons in attendance to assist with drafting if we reached any agreement. This meeting went on until after 10pm at night but we managed to reach agreement. We signed the first version of what became known as the Princes Street Supplemental Agreement ('PSSA') on 20 March 2009. The first version of this document referred to works having to commence on Monday 23 March 2009 which we achieved. This first version of the PSSA also only dealt with the work required in the first week thereafter. There were various subsequent iterations of this document to deal with comments from others, including I believe Siemens and CAF, and some Appendices etc had to be added. The final version was signed on 29 May 2009 (albeit the works had actually commenced on 23 March). I had only been in my post for three weeks when we had the first negotiation which led to this agreement being struck. It was part of my remit and my intention on arriving on the Project, that we would find a way through the difficulties which had arisen. This was a good first step.

7.9 In terms of the PSSA, Infraco were entitled to be paid on a Demonstrable Cost basis for the works to be carried out on Princes Street. What that meant was that we would be paid for all of the work carried out by our subcontractors (BCUK's subcontractors for the Princes Street Works were Crummock and MacKenzie Construction) on the basis of actual time spent carrying out the work, at rates which were agreed and were set out in the PSSA.

7.10 This was a workable agreement which would allow works to proceed, even though we didn't have agreement with tie on the consequences of the Notified Departures which

affected every element of these Works (being the ongoing presence of the MUDFA Contractor and the fact that the MUDFA Works were far from complete, as well as BDDI to IFC design changes and the other ground condition issues).

7.11 Although the Programme which was submitted with the PSSA showed works commencing on 23 March 2009 and going all the way through to March 2010 without a break for either the Festival or Christmas, tie and it's stakeholders made it clear early on at the project management panel meetings (meetings of the Parties' senior management the purpose of which was to address issues impacting the delivery of the project as a whole, not just the Princes Street Works) that Princes Street would need to re-open to traffic on 29 November 2009. We were therefore instructed to use whatever resources we needed in order to make this happen, including working twenty four hours a day, seven days a week. This is what we ended up doing towards the end of that period. Even then, works were not fully complete in November 2009 and so we had to return in January 2010 to complete the Princes Street Works and to carry out certain remedial works.

7.12 It is worth noting how difficult the Princes Street works were to perform. Areas of Princes Street, particularly The Mound junction were not made available to Infraco at the outset of the works as the MUDFA works were incomplete. This section when eventually handed over to Infraco still had incomplete MUDFA utility works and was subject to considerable disruption during our works as outlined below.

7.13 It proved very difficult to assess the incomplete MUDFA works as tie were not particularly open when advising of outstanding works, unresolved issues or reviewing programmed MUDFA works or completed MUDFA works. At the commencement of the Infraco works on Princes Street, it was clear that there were considerable MUDFA works still wholly incomplete. Examples include:

7.13.1 Scottish Power infrastructure transverse crossings were not at the correct height to accommodate the track slab at various locations (e.g. Frederick St, Castle St, South St David St).

7.13.2 BT infrastructure transverse crossings were not at the correct height to accommodate the track slab at various locations with major works not completed at The Mound. In addition there were other longitudinal locations impacting the construction of the carriageway works (e.g. South St David St to Waverley Bridge Junction).

7.13.3 Scottish Gas Networks Infrastructure works were not completed at various locations with major works not completed at The Mound impacting track slab construction.

7.13.4 Scottish Water Infrastructure works were not completed at various locations with major works not completed at The Mound and other longitudinal locations impacting track and carriageway construction works (e.g. South St David St to Waverley Bridge Junction and a water main running the length of Princes St).

7.14 The ongoing MUDFA issues also impacted the infrastructure design and hence the infrastructure construction works. As an example, during the works, once Infraco obtained access to the area of Princes Street at the junction with The Mound (late handover due to delayed MUDFA works), the Crawley Tunnel was uncovered. This was an existing tunnel with a live water main running through it and it clashed with the tram infrastructure. Whilst everyone was aware of the tunnel prior to the works, the exact dimensions, depth etc. were unknown. It was not until Infraco (BCUK) uncovered the tunnel that we could see that there was a clash with the tram infrastructure. This proved to be a major issue requiring identification and redesign to come up with a design solution which could be approved by Scottish Water. This element was overlooked by the MUDFA work scope. It relied on Infraco to develop options, design and implement the preferred solution to which Scottish Water subsequently agreed. From a site perspective, Infraco seemed to be caught up in outstanding MUDFA/Scottish Water issues which complicated and protracted the design and construction process. Indeed this element of the Princes St works was the last to be completed.

7.15 I cannot answer why during the MUDFA works, a survey of the tunnel was not undertaken and those details then not provided to the designer so that the clash with the infrastructure design could have been resolved prior to commencement of the Infraco works on site. This issue resulted in further delay (and cost) to the programme.

7.16 Despite carrying out the Princes Street works in these difficult circumstances, tie subsequently refused to honour the PSSA agreement. They refused to pay us monies which we were entitled to in respect of the Princes Street works, that totalled in excess of £2 million. This matter had been referred to adjudication at the point at which we went to mediation in March 2011 (I discuss the mediation in more detail below). This seemed typical of tie to find reasons not to pay us what we were contractually entitled to, even where they had previously reached a written agreement with us. The reasons they relied upon for not paying us in full for the Princes Street works included arguments which were just not sustainable. For example, they stated that the PSSA only covered our works up until when we handed Princes Street back over to the Council on 29 November 2009 (when there is no such cut off); and arguments that they would not pay for staff who were *'not seen on site'* even although all of the records submitted showed that those individuals were present. On such a large and busy site, it is ridiculous that all staff need to have been 'seen' by tie representatives before their costs were payable (particularly given that the tie representatives were not on site all the time). Although we referred this matter to adjudication, in the end no decision was reached by the adjudicator as this was swept up in the agreement reached following the mediation in March 2011. We had had a separate mediation on Princes Street alone in November 2010, as part of the dispute resolution process, but this had not resulted in an agreement on what was due to us. I deal later in my statement with the individual mediations we had on various disputes (which was a pre-requisite before we could go to adjudication).

7.17 I now move on to deal with issues of the quality of the works at Princes Street. One of the questions posed to me by the ETI in the letter to Pinsent Masons of 18 June 2015 relates to what steps were taken to exercise control over the quality of work

undertaken by sub-contractors and why did the tram track on Princes Street require to be re-laid [see question 9 of ETI letter 18 June 2015].

7.18 I would first respond by advising that the wording of the question is not correct. The tram track on Princes Street did not need to be re-laid. I deal with this further below. However, in relation to the issue of quality control, BCUK had full ISO 9001 certification in place prior to and for the duration of the Project. By way of background, ISO 9001 is a certified quality management system (QMS) for organisations who want to prove their ability to consistently provide products and services that meet the needs of their customers and other relevant stakeholders. This is audited internally and externally and we fully complied with and met the requirements of ISO 9001 throughout the Project. In accordance with any good and competent main contractor, we had in place through our Integrated Management System, robust quality control procedures to ensure that all works were carried out properly by our sub-contractors. On each and every Bilfinger job, we have processes in place to make sure that we appoint the right subcontractors who also have ISO 9001 certification and a similar approach in regards to quality. MacKenzie and Crummock are well known subcontractors in the Scottish market. They have worked for City of Edinburgh Council on many other jobs (before and after Trams) and are competent and experienced subcontractors. We had ISO 9001 compliant management structures in place within BCUK including quality control procedures and guidelines to make sure their works were carried out to the required standards: this included good site management and presence, daily control meetings, interface meetings, inspection and test plans and records and quality inspections and audits. Where necessary, Non-Conformance Reports (NCRs) would be raised that identified works or elements of works that, for example, were not constructed in line with the required standards. In order to close out the NCR, the sub-contractor would be required to carry out remedial works. I would refute that there was any mismanagement by BCUK of its subcontractors. In any case, defects are part of construction contracts – there will also be some corrective action to take before the Project would be considered as complete. The fact that there were defects on Princes Street does not mean that Infraco was in breach of contract.

7.19 In addition and in relation to our subcontractors generally, there were of course problems (which would be expected due to the complex nature of the project) but we managed to avoid major disputes with all of them, and this was despite the fact that we were aware that they suffered because of the nature of this job – in particular its stop / start nature. For example, Crummock geared up for work on Leith Walk, only for the work to be stopped before it had properly started for the reasons I have dealt with above (the continued presence of the MUDFA Contractor). Barr Construction were similarly disrupted with their work at the Depot. I would say that all of our subcontractors were understanding of the difficult situation we found ourselves in with tie. They were on board and were part of our team. This can be seen by the fact that many of them came back on board after the majority of works had been suspended, following the settlement which we reached with tie/CEC following the mediation. If relationships had not been as good, I don't think they would have agreed to return to finish the works. We did have some issues with our subcontractors along the way but we managed to negotiate a way through with them, following mediation and after the works restarted.

7.20 As regards why an element of the Princes Street work had to be redone by BCUK, part of the problem was the pressure we came under to meet the requirement that Princes Street reopen on 29 November 2009 (in advance of completion of the works). The month of November 2009 was extremely wet and cold (frosty) and this is not ideal for laying tarmac, particularly with 24/7 working. In addition, the work was finished very early in the morning of 29 November and tie/CEC allowed buses to run on the newly completed surface just hours later (and contrary to our advice).

7.21 We had a long debate with tie over the reasons why the road-rail interface on Princes Street was subject to cracking.

7.22 It should also be remembered that at time of handover on 29 November 2009, the works to the trackform were incomplete. Due to programme pressures instigated by tie, the final surfacing works (primarily the coverage layer) were rushed, completed in poor weather conditions and then not afforded the necessary standing time to achieve

strength prior to loading (i.e. driven on by buses too early). The above reasons contributed to the cracking at the road-rail interface.

7.23 It should also be noted that the cracking as displayed on Princes Street occurs on the majority, if not all, of the tram systems that use this trackform system (which is called 'Rheda'). The cracking was also exacerbated by the volume of buses that utilise Princes Street and in particular the turning forces of the bus axles brought about by the constant requirement of buses having to pull out onto the tram tracks to pass other stationary buses.

7.24 Ultimately, however, we reached a position at Mediation where Infraco agreed to redo Princes Street at our own cost and to an enhanced trackform design (i.e. concrete shoulders rather than asphalt). This work was successfully carried out post mediation.

8. OTHER ISSUES THROUGHOUT DURATION OF THE PROJECT

8.1 As was well known, the Project suffered from many problems and was severely delayed as a result. In this section of my Witness Statement, I deal with the major issues as I recall them. It is not possible to deal with these issues in much of a chronological manner, because many of them were ongoing throughout the period March 2009 (when I joined the Project) to March 2011 (the mediation). Before getting in to this, it is worth explaining the relationship which existed between BCUK and tie.

8.2 **Bilfinger Relationship with tie**

8.3 The relationship which we had with tie was not at all good. Everything was a battle and to my mind, seemed to stem from a basic disagreement about the background to and interpretation of the Infraco Contract.

8.4 When I arrived on site in March 2009, I was aware that relationships even by this time, were not good. Kevin Russell, BCUK Contract Manager, had not long joined the project at this stage (he joined I believe a month before me). I thought that with the change of personnel on the BCUK side, this was a good opportunity to turn the relationship around. We tried very hard to make this happen, even having a joint team ten pin bowling night. It quickly became apparent that there was no good relationship, and not even an acceptable working relationship. This was throughout the whole of the tie organisation, from management down. Even at a design or a construction level, the relationship was terrible. For example the construction section managers in BCUK who worked under Jim Donaldson (our Construction Manager), had terrible relationships with their opposite numbers in tie. At no level at all was the relationship acceptable or appropriate. Even at social events, there was a real sense of tension.

8.5 In the beginning I tried to work closely with Steven Bell and Frank McFadden, thinking I could build a working relationship with them. This quickly proved to be impossible. We had very intensive meetings with them. My approach is always to try and find solutions. We never managed with tie or with these individuals to find working solutions. Even when we thought we had made some progress on a particular issue,

tie would then come back in writing refuting that any agreement had been reached. The result of this was that there was no level of trust between us at all.

8.6 Even by the end of 2008 prior to my arrival, and thereafter into 2009, tie started sending letters which were very accusatory in tone, extremely lengthy and referred to BCUK's 'behaviour' which is unusual for the kind of large infrastructure contracts that I am used to dealing with. The people we were dealing with seemed to be very confrontational and rather than looking at ways in which we could resolve the issues between us, they continually looked at ways to block our progress whilst seeking to blame us for everything which was wrong with the project.

8.7 At various times, we thought there might be scope for some progress. For example, following reaching agreement on the PSSA as described above (in March 2009) we attempted mediations with tie to see if we could unlock issues which were separating us. We had a mediation before a mediator called Eileen Carroll at the end of May (29 May 2009, the same day we signed the final PSSA) which was about the percentage uplift to cover overheads and profit which was to be applied to the Actual Cost associated with the value of Notified Departures and sums due to us via Appendix G to Schedule Part 4. We reached a settlement which was recorded in a Minute of Variation dated 3 June 2009 that we would get an uplift of 17.5% in respect of the civil element in valuing these changes. We attempted a further mediation from 29 June to 3 July 2009 which was much more ambitious in scope. This dealt with 12 issues identified by the CEOs of Infraco and tie (following a meeting on 22 June) covering all of the major issues then in dispute, including: the valuation of extension of time ('EOT') 1 (which was the 2 month initial delay due to the SDS programme moving from version 26 which was what the price was based on, to version 31 by the time of signature of the Contract); the time due to us in respect of EOT 2 (MUDFA delays as at March 2009); how to interpret Schedule Part 4; the valuation of BDDI to IFC Changes etc. This was also the start of the discussions on what became known as the 'On Street Supplemental Agreement' which was a proposal that all On-Street Works be dealt with on a similar basis to the PSSA. I deal with this in further detail below.

Unfortunately, we were unable to reach agreement with tie at this mediation because it became clear that we had fundamental disagreements on the interpretation of key aspects of the Contract. We followed the mediation up with a 'Without Prejudice' offer to tie on 8 July 2009. In this letter, as well as making proposals in relation to many of the things discussed at mediation, I also urged tie to *'abandon its passive behaviour in favour of an active decision making process'*. By this I meant that the issues between us were only likely to get much worse if decisions on how to proceed were not taken early. In response in a letter dated 9 July 2009, Steven Bell took the position that tie remained open to taking decisions but it was Infraco's failure to provide information which was making this impossible. It was clear that we were very far apart on many issues.

8.8 At other times, there were proposals made by tie, which, had they stuck to the original intention, might have helped to unlock the position we found ourselves in. For example, it was originally a tie proposal (I think Richard Jeffrey) to send some of the bigger issues of contractual interpretation to adjudication. The idea was that if we had 3-5 decisions from adjudicators on some of the key issues, such as the proper interpretation of Schedule Part 4, that would unlock the dispute and give us a template for moving forward. However, when tie lost all of the adjudications which dealt with these significant matters of principle (from late 2009 and into 2010), they then refused to accept the adjudicators' decisions, or interpreted them in an obtuse way which could not be supported. Our whole relationship with tie was like this. As I've said, we really tried to make the relationship work but it was just not possible. I didn't join the Project to end up in adjudications and court cases. From our side, and despite the abuse we received, we were always trying to be open and to look for ways of making the Project work: for example, I mention in greater detail below, our proposals in relation to On-Street Working, Project Carlisle I and Project Carlisle II and Project Phoenix (which was the basis of our mediation proposal and the agreement with CEC post mediation). All of these proposals were aimed at simplifying contractual procedures and allowing us to build to the budget that tie had available to it, mainly by reducing the length of the tram line. Everything we tried and offered was killed by tie. It

is perhaps worthwhile mentioning that we always tried to find solutions to the problems for example, because of the high running costs the delays were causing, none of which we were being paid for. It is always wiser to avoid additional costs than try to recover them later.

8.9 My feeling was that everyone in tie was following orders. It is not clear to me who might have been issuing those orders but it was clear that they were being followed by everyone we dealt with. The orders mainly centred around refusing to accept what the Infraco Contract said, and insisting that this was a lump sum, fully fixed price contract which it clearly was not. The opening paragraphs of Schedule Part 4 make that abundantly clear. Steven Bell in my opinion was not the right person to be heading up the Project on behalf of tie. You need to be open and professional in order to lead on a project like this and Steven Bell was neither of these things - although I accept that he may also have been following Orders (perhaps from David Mackay or Richard Jeffrey). His whole attitude was not solutions orientated which is what we needed, but was completely confrontational. He even was like this for the short period that he remained involved, after mediation (although by this time, the presence of Colin Smith and the new role of CEC meant that he was brought into line much more quickly).

8.10 We had a very poor relationship with David Mackay who openly called the Project 'hell on wheels' and used the press against us, including when he resigned and used the media to call us a 'delinquent contractor'. Richard Jeffrey was his replacement and we hoped that he would take a different approach. My feeling was that he was less of a confrontational person by nature. However, it was his decision to bring in Tony Rush as a consultant, who was extremely aggressive and confrontational and used very inappropriate language in meetings. He used to say things like he would 'push us to the wall' so that we had to accept tie's position. After the mediation in March 2011, when we had signed the heads of term which were the starting point of the detailed renegotiation of the Contract, Tony Rush approached me to apologise for his behaviour. He told me that he had been asked to behave in the way he had, and assured me that I wouldn't be hearing from him again.

8.11 I would say that until Sue Bruce, the newly appointed Chief Executive of CEC and Colin Smith of Hg Consulting became involved (at and post mediation), we never dealt with anyone in tie who was prepared to take a reasonable attitude. tie seemed to either employ people who were of a similar mind-set or who they could control to be the same as them. At one stage, there was some media attention on a survey which had been carried out and which had identified how unhappy tie employees were. They had a very high staff turnover. Willie Gallagher, who was the Chairman of tie, didn't last long after the Contract had been signed. Some individuals who were employed by tie and who were very difficult to deal with in the period before mediation (e.g. Andy Scott and Tom Cotter) had a notable difference in attitude post mediation when they were subsequently employed by Turner and Townsend. This would indicate that it was tie management who were dictating the behaviour of all of their employees, and that when tie were taken out of the picture altogether, things became much easier. Generally tie's approach seemed to be to bully and apply very aggressive tactics, with very little (or no) room for compromise.

8.12 Furthermore, I would note that tie also appointed persons into roles for which the person did not appear to have the appropriate skills, knowledge or experience.

8.13 Whilst we were not directly involved in the MUDFA contract, tie appeared to, from our position, treat this as a wholly separate project and not as advance works for the tram. What I mean by this is that they diverted utilities without full or due consideration of the purpose of the diversion. I was informed of services being diverted from a clash with one piece of tram infrastructure into the location of another element of tram infrastructure without any discussion to determine the impact to the tram infrastructure. It was evident that the tie MUDFA team and the tie Infraco team did not work as "one tie team". Again, whilst we were not directly involved, there was clear tension between the two tie teams. When this approach is compared with the approach by CEC to deal with the utility clashes after Mediation it was night and day. The approach by CEC was open, collaborative with the most appropriate solution developed to minimise cost and impact to the overall programme.

8.14 If I was asked what drove tie's behaviour, I would say that it seemed they had an entirely different interpretation of the Infraco Contract to us. Perhaps they understood that they were not in a good position contractually and financially, and this was why they had to be so aggressive and unreasonable. Willie Gallagher had reported to the Council that this was a lump sum, fixed and final Contract Price and as I've said above, this was simply not correct, as the top page of Schedule Part 4 makes clear. It seemed that tie were trying to defend that position from day 1 of the Project. It was a position which was not defensible.

8.15 tie's attitude meant that we did have to employ our lawyers, Pinsent Masons, to assist with reviewing the Contract and advising us on our position on the various things we were being accused of. Moving into the latter part of 2009 and thereafter, Pinsent Masons ran and defended the 12 adjudications we were involved in, as well as assisting with many other disputes in the background which didn't reach the adjudication stage. In addition, we ended up with a large Change Management team of around 10 Quantity Surveyors, whose job it was to notify of Notified Departures and to subsequently evaluate and quantify the Change. This was approximately three times larger than the team that I would normally have expected to see employed on a job of this nature. It was not how the job had been planned and all of these people were not employed from the very beginning. Instead, they had to come on board due to the way that tie were driving the Contract, refusing to deal with Notified Departures, insisting on more information from us continuously and generally refuting our contractual entitlements. We also employed an additional planner full time (albeit he was a consultant and not a BCUK employee) Stephen Sharp, in addition to our day-to-day planner (James Cowie). Steve's job was to help us assess the delay being caused as a result of the significant level of Change on the Project, but in particular, the delays caused by the delay to the preceding MUDFA Works. The team on this Project was therefore significantly bigger than we would normally assemble for a job of this size and nature which meant we were incurring higher costs.

8.16 tie, until their demise, persisted in characterising the Project problems as being solely of Infraco's making. As documented in brief above, this is clearly not the case. Had tie recognised and accepted their role and obligations at the start of the Project, the Project would have incurred fewer delays, been built for substantially less than the final outturn cost and perhaps delivered a greater scope.

9. OTHER ISSUES FROM MARCH 2009 TO MARCH 2011

9.1 Ongoing delay

9.2 As I noted above (in relation to my comments on Princes Street), the Infraco Contract was based on certain pricing assumptions and some of these related to both programming and the MUDFA works. The relevant pricing assumptions are found in Schedule Part 4 to the Contract and include:

"*no 24: That in relation to Utilities the MUDFA Contractor and/or Utility shall have completed the diversion of any utilities in accordance with the requirements of the Programme save for utilities diversions to be carried out by the Infraco pursuant to the expenditure of the Provisional Sums noted in Appendix B.*

no 25: That the Possessions (as defined in Clause 16.1) shall be available as noted in the Programme at Schedule Part 15 (Programme).

no 32: That the programming assumptions set out in Schedule Part 15 (Programme) remain true in all respects"

9.3 Further, more assumptions were made in the body of Schedule Part 15 (Programming) including:

"*3.1: The Programme is based on MUDFA having completed all works and all utilities being diverted that would conflict with Infraco operations by specified dates which are in advance of commencement by Infraco of any of its Works in any Designated Working Area.*"

9.4 In short, what this meant was that the Programme was based on the Utility Works in any Designated Working Area being complete before Infraco commences the Infraco Works in such Designated Work Area, and that no works were required to be undertaken by Infraco to enable the MUDFA Contractor to proceed. If the Utility works carried out by the MUDFA Contractor and/or other utilities works had not been completed in accordance with the requirements of the Programme, and/or the

Programming Assumptions were not met (the MUDFA and utilities diversion works are not completed by the dates shown in the Programming Assumptions document included at Schedule Part 15 b of the Agreement), then a Notified Departure had occurred which entitled Infraco to additional time and money.

9.5 As I've mentioned above, delay by the preceding MUDFA Contractor was the major contributing factor which delayed the Infraco Works. Under my comments on Princes Street, there was a delay of almost 2 months to the Contract Programme, at the time that the Contract was signed [as a result of the change in revision to the SDS programme]. The situation only got worse from there. The Infraco had no contractual relationship with the MUDFA Contractor. tie controlled that relationship entirely. We struggled to get updated information from tie as to when the MUDFA Works would be completed. We needed that information in order to be able to properly programme the Infraco Works.

9.6 As I mention above, the original MUDFA Contractor was Carillion plc. tie replaced Carillion with Farrans Construction and Clancy Docwra but gave the Infraco no notice of this. At no point did tie provide the Infraco with notice of a) the reasons for the delay to the completion of the MUDFA Works, b) when tie became aware of such delays and c) reliable anticipated completion dates for the MUDFA Works (which would have allowed us as Infraco to know when we could expect reasonable access dates for the commencement of our Works). Had tie provided us with this information, it would have made our job much easier. The closest we got was sporadic marked up drawings from tie's sectional Project Managers on site regarding anticipated completion dates for certain MUDFA activities in various locations. There was no formal communication of this information from tie.

9.7 In a report to Council dated 12 March 2009, tie reported that the MUDFA works were *"on target to be substantially completed by July 2009"*. In the Edinburgh Tram MUDFA Update Report dated 22 March 2010, tie reported to the Council's Tram Sub Committee that *"The majority of the utilities works are complete (97%) with the remaining work being concluded by September 2010."* In the corresponding report

dated 24 June 2010 tie reported *"The utility diversions are now substantially complete"*. In the Edinburgh Tram Update Report dated 14 October 2010 tie reported that the utility diversions were *"over 95%"* complete. The Audit Scotland Report of February 2011 states *"Utilities work is now 97 per cent complete"*. The substantial utilities diversion works carried out post Mediation (including planning, design and approvals) indicate that the above percentage completion rates were inaccurate. The utility diversion works were finally completed in late 2013. Clearly, the reports issued by tie to CEC reporting MUDFA completion percentages could not be relied on. I believe that it is clear from the above (assuming that tie did not deliberately report inaccurately to CEC) that tie did not at any stage have a grasp of the full scope, cost, timescale or impact of the utility diversions required.

9.8 As it was, half the time we were acting in a vacuum and simply had to make assumptions about when the MUDFA Works might complete in the absence of any concrete information coming from tie. Any dates from any information we did get (e.g. from the site managers) or assumptions we made on that information about anticipated completion dates for the MUDFA Works, repeatedly lapsed (that is the dates were missed), without any explanation from tie. The majority of the time, we had no reliable information on when the MUDFA Works would be completed and when we could get access to the various areas of the site to enable our works to proceed. This made it impossible to plan works or engage meaningfully with subcontractors.

9.9 Not only were there Programming and Pricing Assumptions about the MUDFA Works having been completed before we commenced our works, as I've noted above, Clause 18.1.2 also provided that we were granted *"an exclusive licence to..enter and remain upon the Designated Working Area for the duration of the time required (pursuant to Schedule Part 15 (Programme)...for completion of the Infraco Works to be executed on such Designated Working Area."* The Project was broken down into 7 Sections and many intermediate sections within those main sections. We had programmed on the basis that each of the intermediate sections was a 'Designated Working Area'. On the on-street sections of the Works, the continued presence of utilities and the MUDFA

Contractor meant that we did not have exclusive access to really any area of the Site which curtailed our ability to work in the on-street areas.

9.10 As a result of the ongoing MUDFA delays, it meant that we were continually working to outdated programmes. We had various obligations in relation to Programming and were required to produce updated monthly Programmes to tie (clause 60 of the Contract contains our obligations in relation to progress reporting and providing updated programmes). Where there was to be a change to the Programme (by which I mean the main Programme for the whole of the works which we were working to), we were to submit that to tie's Representative for their acceptance of any change (which could include the revised order or manner in which the Infraco proposed to carry out the Infraco Works). As noted, even Revision 1 to the Programme (which related to delays which had happened even before the Contract was signed) was difficult to get agreement on. This was despite the fact that tie were supposed to respond to an updated Programme within 5 days of receiving it.

9.11 Early on, and in fact before I had joined the Project, I understood that our programmer, Stephen Sharp, had started a series of meetings with tie's Tom Hickman (tie's programmer), to try and agree a revised programme which took account not only of MUDFA delays, but also late design and tie Changes etc. The approach that they took to this exercise was to analyse the impact of these delays on each Section of the work. This exercise was stopped after a while as tie required that Stephen instead work on recovery programmes (i.e. how we could make up lost time).

9.12 After that, and in my time on the Project, we continued to try and get agreement with tie on a realistic Programme. tie seemed to refuse to accept what we were telling them. They refused to accept that we couldn't mitigate the delay and they had a very different approach to us as to what they believed mitigation would involve. The Infraco Contract does require us to mitigate delay. However, tie seemed to believe that mitigation also included acceleration, by which I meant they thought that we should introduce a huge number of additional resources at our own cost and do all that we possibly could to pull back the delay caused by MUDFA. It also appeared that tie didn't

really want to agree a revised Programme because if they did, they would have to go public with the truth that there was no way that the Project would be completed by the original completion date for the final section of 16 July 2011. This was yet another example of tie refusing to accept what reality was telling them, and refusing to accept the mechanisms built into the Contract to deal with these matters.

9.13 On 30 April 2009, tie issued 'MUDFA Programme Revision 8' which was the first time that they had formally communicated anticipated completion dates for the Utility Works across the project. As I explained, until this point in time Infraco had not been made aware of the extent of the delays to the Utility Works in any reliable detail.

9.14 The Project was to be completed in four Sections (described as Sectional Completion A, B, C and D). By showing the effect of these MUDFA dates on the Programme we were then working to (Revision 1), it was clear that these dates were going to have a huge impact on our completion dates for each of the four Sections. We considered this was a Notified Departure and in July 2009, we issued INTC 429 in respect of the MUDFA delays. This intimated that a Notified Departure had occurred to the extent that the completion dates provided by tie in the 'MUDFA Programme Revision 8' were at variance with Pricing Assumptions 3.4.24 and 3.4.32. The notice intimated that the Notified Departure mechanism therefore applied.

9.15 On 3 September 2009, tie formally confirmed that it agreed that a Notified Departure in respect of the effect of the 'MUDFA Programme Revision 8' had occurred. However, tie fundamentally disagreed with our assessment of the effect of the delays to the MUDFA Works.

9.16 In August 2009 and in accordance with the procedure for Notified Departures which I've outlined above, we provided an Estimate to tie to show the effect of these MUDFA delays. We reserved the matter of cost to after the time elements had been determined. The Estimate showed slippage to the completion dates as follows:

(a) Planned Sectional Completion Date for Section A: 187 Calendar Days (to 13 December 2010)

(b) Planned Sectional Completion Date for Section B: 185 Calendar Days (to 10 January 2010)

(c) Planned Sectional Completion Date for Section C: 251 Calendar Days (to 22 November 2011)

(d) Planned Sectional Completion Date for Section D: 257 Calendar Days (to 20 May 2012)

9.17 This programme included all mitigation measures which Infraco considered to be reasonable (and which complied with the contractual obligation to mitigate). This was a 9 month delay to the Programme, and only reflected delays to the MUDFA works. There were other delays associated with BDDI to IFC design Change etc, but we were hoping at least to make some headway.

9.18 Ultimately tie would not agree the impact on the programme of these MUDFA delays. We referred the matter to adjudication in May 2010. tie took many technical points in defence: that the Estimate we had submitted was inadequate; that we should have accelerated (that is by spending our own money to add additional resources to the job); that as well as being a Notified Departure, this was also a Compensation Event under a different clause of the Contract (clause 65) and that the method we had used to evaluate delay was wrong. The matter was referred to Robert Howie as Adjudicator and tie failed on all of these points. We were awarded an extension of time for Section A, although the Adjudicator found against us on one important issue - namely that he didn't agree with the way that we had approached the issue of what was a Designated Working Area ('DWA') (we had equated this with the intermediate sections in our Programme when the Adjudicator held that it was not as wide as this and that we should have looked instead at the DWA being the area of ground at any particular point which Infraco needed to do the work safely and reasonably economically). We didn't get as much as an extension of time as we had wanted, but this decision provided some very important points of principle, decided in Infraco's favour, which we

were able to take forward to prepare a subsequent claim for even more delays caused by the MUDFA Works.

9.19 Although the first adjudication was based on the MUDFA Revision 8 programme which we received in May 2009, in February 2010, and at our insistence, tie started to provide on a monthly basis, access maps showing where Infraco had access to areas of the site and forecasting when Infraco would get access to other areas of the site. However, even this information was misleading and differed from other information we received. By doing a cross-check against other documents, letters, Change Orders etc, we prepared another INTC (no. 536) which was submitted in January 2010, and followed that up with a further Estimate which this time included costs (of circa £40 million plus Euros 4 million) on 17 September 2010. This new Estimate approached matters entirely in line with the adjudicator's decision in the first adjudication on MUDFA ('MUDFA 1'). By September 2010, we were reporting a delay of almost 15 months to the final completion date (for Section D) and this was in respect of MUDFA delays alone. Even at this stage we were reporting against Programme Revision 1 as tie had steadfastly refused to acknowledge the delay we were reporting and had not agreed an updated Programme. We were reporting against a very out of date Programme. Again, tie refused to accept our Estimate and raised many of the points they had raised in the MUDFA 1 adjudication. It is worth putting some of this into context. By the time we went to mediation in March 2011, the MUDFA Works were still not complete in accordance with the MUDFA Programme. This was 34 months into the original 38 month Infraco Contract period. Even at that stage, tie could not provide any certainty as to the sequence and timing for completion of all of the MUDFA works. This had such a massive effect on our ability to progress the works which cannot be underestimated. tie's refusal to even acknowledge the effect this was having, and continually stating that we could mitigate any delay, was simply exacerbating an already very difficult situation.

9.20 tie's failure to acknowledge principles which had been already determined at adjudication, and its failure to properly administer the Contract (which I touch on in

greater detail below) was exemplified by the fact that the first time we received a formal response to our Estimate for these further delays, was in the mediation papers submitted by tie's lawyers in February 2011. tie suggested that we were entitled to not a single day of extension of time despite the massive delay to the MUDFA works and all of the problems this had clearly caused us. In addition, the grounds tie relied upon for not awarding us any time, were matters which had already been decided against them at adjudication. For example, tie's main argument was that the MUDFA delays were not a Notified Departure, but a compensation event and that we had applied for the extension of time under the wrong clause of the Contract. This was simply wrong - it flew in the face of the decision we had received at adjudication in relation to the operation of Notified Departures (clause 80) against Compensation Events (clause 65). This was a key issue between the parties and by this time, had been decided in Infraco's favour (in an adjudication before Lord Dervaird associated with the Murrayfield Underpass which I discuss below). Another complaint was that we had impacted the wrong Programme because we were showing delays against the contract Programme Revision 1 and not any updated programmes. We could not believe this - the reason there was no updated Programme showing actual progress was because tie had continually refused to accept any Programme which showed delay. Their whole approach in this document showed a complete disregard of points of principle which had already been decided in the MUDFA 1 adjudication before Robert Howie QC.

9.21 It should be remembered that although our approach in these two applications for an extension of time was to focus on the MUDFA delays, there were also other delays caused as a result of design changes and failures by tie to obtain third party approvals which they were contractually obliged to obtain. In the end, we never received an extension of time to the completion dates because the Infraco Contract was entirely renegotiated following the mediation.

10. **DESIGN**

10.1 **Design – Background to the Design in relation to the Contract:** The original concept of the Infraco Contract was to essentially be a "Build only" contract with the SDS design already completed in advance of the main construction works. It should be noted that there was always a requirement for the Infraco proposals (i.e. systems design) to be integrated into the SDS design; however, this was envisaged to have been carried out in parallel to the initial civil construction works. If the SDS design had been complete as planned, this would have allowed for the construction works to be accurately priced and for the contractor to carry a much greater proportion of the risk. However, quite early on it was clear that the SDS design would not be complete and the contract effectively became a "Design and Build" Contract, whereby Infraco was also to take on the obligation of completing the design and constructing the works. As an aside, but for completeness, I would surmise that the reason for the "Design and Build" Contract was to move the risk of design from the client to the Contractor. This is fairly standard in construction and is the most common way in which an Employer will seek to ensure that a contract is a fixed price, lump sum, with the obligation on the Contractor being very much to do all that is required to deliver what the Employer wants (as reflected in a document which is usually called the Employer's Requirements – as it is in the Infraco Contract). I would also note that subsequently the maintenance of the constructed works was bolted on to the Infraco Contract.

10.2 As I've noted above, tie had engaged SDS (Parsons Brinkerhoff) to develop the preliminary and detailed design and this design was based on the initial outline design carried out by others to inform the Parliamentary Process required to obtain the consent to construct the Edinburgh Tram Network. SDS was constrained by the Limits of Deviation that had been set by the initial designers and agreed to at the Parliamentary stage and included within the Tram Acts.

10.3 SDS was instructed by tie in 2006 to develop the design and the initial design programme showed the SDS design being completed prior to award of the Infraco Contract. This design clearly did not progress as initially programmed. I am unable to

comment on why this occurred; however, I would speculate that perhaps the design was delayed for the same reasons as occurred during the Infraco Contract and which I explain as follows.

10.4 Under the Infraco Contract (i.e. post novation of SDS), SDS would continue to develop a design based on the design and requirements included within the Tram Act. Once this was at a preliminary design stage, it would be issued for initial consultation to tie and the approval body. This was to obtain an early understanding of any requirements the approval bodies or third parties would have, such that these requirements could be incorporated into the detailed design and avoid unnecessary re-work of the detailed design. SDS would then develop the detailed design incorporating the necessary requirements. SDS would issue the detailed design for formal consultation and approval. Following formal approval, SDS would finalise the design and issue this for construction (i.e. 'Issued for Construction' ('IFC') status). The entire process from initial consultation to issue of the IFC design should take no more than 90 days. It was the obligation of tie to ensure third parties and approval bodies provided their comments in line with the design programme (with reference to Clause 10.1 of the Infraco Contract).

10.5 I have already described how we had to price against a baseline design (BDDI as of 25 November 2007) in order to attempt to "fix" an initial Contract Sum. However, the design had not been completed to a sufficient degree that would have allowed Infraco to accept the novation of the designer's contract from tie and all of the risk for the development and evolution of the remainder of the design. In addition a large proportion of the third party approvals required to deliver the Project had not been obtained by tie. Schedule Part 4 included for a number of Design related Pricing Assumptions some of which I reference further below. However, I note below an extract from Clause 3.4.1.2 of Schedule Part 4. It is clearly evident that this Contract was and never could be a "fixed price lump sum" Contract.

10.6 Clause 3.4.1.2 and 3.4.1.3 state that *"The Design prepared by the SDS Provider will not….be amended from the Base Date Design Information and Infraco Proposals as a*

consequence of any Third Party Agreement" or "*be amended from the drawings forming the Base Date Design Information as a consequence of the requirements of any Approval Body*."

10.7 **Design Status at May 2008**: At Contract signature, SDS were novated to Infraco and it was Infraco's obligation to both complete the design of the Project and carry out all construction works. However, this obligation is tied to Schedule Part 4 and the other risks that still remained with tie.

10.8 The Edinburgh Tram Acts (Line 1 and Line 2) were passed with a number of third party requirements to be addressed. There were brought about due to impacts on a third party due to the tram – for example, loss of land, loss of access etc. The third party agreements were the obligation of tie to obtain and then ensure the third party requirements were included for within the design.

10.9 However, at the time of Contract Award, third party input into the design had not been completed and the detail of Accommodation Works required to meet third party requirements had not been fully defined (e.g. Forth Ports, Network Rail etc.). Furthermore, a significant number of approvals were outstanding. tie were responsible for the approvals and also for the costs (and time) associated with changes to the design brought about by late issue of the third party requirements. Pricing Assumption 3.4.1 of Schedule Part 4 as quoted above clearly demonstrates that this risk sat with tie.

10.10 In addition, the design at Contract award was the original SDS design only and required the incorporation of the Infraco proposals. The Infraco proposals included a different trackform (Rheda), a new Overhead Line Equipment (OLE) system, different substation equipment, increased size of duct chambers, and different Depot equipment (tram wash, wheel lathe etc.).

10.11 In addition, the tram vehicle procured by tie through CAF differed from the assumed vehicle on which the SDS design was based. The CAF vehicle was a larger tram vehicle with a different and larger Dynamic Kinematic Envelope (DKE). The change in

DKE impacted the tram stop, roads and OLE location design. As a result of the late addition of CAF to the Infraco Consortium, the new vehicle was also an Infraco proposal. It is worth noting the Pricing Assumptions from Schedule Part 4 which dealt with these issues.

10.12 Pricing Assumption 7 states *"That the tram meets the DKE parameters mentioned in the track alignment criteria document (ULE90130-SW-SPN-00001 v2.1)"*. This means that the CAF tram DKE should be the same as the SDS "assumed tram" DKE. Pricing Assumption 9 states *"Except for the normal development and completion of designs....there shall be no changes to the design resulting from the impact of the kinematic envelope of the Trams on the civils design"*.

10.13 The process by which the Infraco Proposals would be integrated into the SDS design was through the Development Workshop Process.

10.14 The Development Workshop Process (defined within Schedule Part 23 of the Infraco Contract) involved holding workshops to identify misalignments. The workshops were to be held as soon as reasonably practicable and attended by all parties. At time of Contract award, it was known that misalignments existed between the SDS design and the Infraco Proposals. The workshops were held to determine the development of the Infraco Proposals and any consequential amendment to the design deliverables. A Misalignment Report would then be prepared and signed off by all parties identifying the misalignments, detailing the conclusions in respect of each matter and payments to be made to SDS in respect of the work to be carried out by SDS as a result of the conclusions set out in the report. The work to be carried out by SDS to address the misalignment was a Mandatory tie Change. tie should then have issued a tie Notice of Change requesting an Estimate from Infraco to carry out the necessary design works. Following receipt and agreement of the Estimate, tie would then issue the corresponding tie Change Order. tie also had the option to instruct the design in advance of agreement of the Estimate through the appropriate contractual mechanism (see Clause 10.18 of the Infraco Contract).

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10.15 The ability of SDS to complete the design was being frustrated by a number of issues, the vast majority of which were out with the control of Infraco and SDS and were with tie (directly or at least contractually in terms of risk) to resolve. At a high level, the issues included CEC and Third Party Approvals, uninstructed design changes and conflicting requirements. I take the opportunity to highlight some of these issues in more detail below. I would add that of course there were some delays to the design programme due to late issue of design by the designers; however, these were much fewer in number and of less significance in comparison with the delays caused by the failure of tie.

10.16 **Approvals Process**: There were numerous delays in receiving third party (mainly CEC approval) for the design, this being a matter in respect of which tie has retained the risk in terms of the Infraco Contract (under Clause 10.1, it was tie's contractual obligation *"to procure that CEC reviews the Deliverables in accordance with Schedule Part 14"*). The approval delays were due to two main reasons. The first was the delay in receipt of comments or approvals for sections submitted to CEC. The second was that within comments received as part of the approval process or comments post approval, CEC sought changes that constituted scope changes and hence become Notified Departures. Infraco/SDS were entitled to recover costs to amend the design. The design change process then became "locked up" within the contractual change mechanism and impacted the completion of the design to IFC status, the corresponding approval and ultimately the construction works. This is before we even consider Infraco's entitlement to recover costs due to BDDI to IFC changes.

10.17 tie had no control or management of CEC Approvals Authorities with resultant continual scope changes (some that constituted Notified Departures) without any recognition of additional costs, programme impacts etc. Throughout the Project, there were also instances of CEC raising additional requirements post Approval that tie did not manage or control appropriately. This led to additional costs and delays to the Project.

10.18 tie's failure to programme manage the approval process meant that some design packages which were expected to be finished by May 2008 (prior to contract signature) remained outstanding beyond March 2011 through a lack of approval by third parties. Examples are contained within the early Design & Consent Control meetings dated April and May 2011 that followed Mediation.

10.19 The Infraco design (e.g. OLE design, track design etc.) was subject to the approval of tie under Schedule Part 14 - the contractual Design Review Process. This was envisaged as a tie-led, 4 week review process as set out at Section 2 of the Design Management Plan (Part C of Schedule Part 14 to the Infraco Contract). This required the design to be submitted to tie who would then review and either approve (Level A), approve with comments (Level B) or reject (Level C). However, tie also mismanaged this design Approvals Process. tie did not manage this process in accordance with the programme and comments were provided late or after the design had been issued at IFC status resulting in requests for further (at times “superficial”) changes that then become “tied up” in the contractual change process. Furthermore, tie attempted, contrary to the provisions of the Design Review Procedure, to “downgrade” the level of approval given to design deliverables, preventing work being progressed which had previously been approved by tie. tie’s role as a design reviewer and approver was halted following mediation. Schedule Part 14 was amended as part of the Settlement Agreement in order to streamline the Approvals Process.

10.20 **Conflicting Planning and Technical Requirements**: In many instances there were conflicting planning and technical requirements or conflicting requirements between the approval authority and a third party. These were outwith the control of Infraco or SDS to manage. I provide a couple of examples below to illustrate this issue.

10.21 Picardy Place: The design for Picardy Place was delayed due to conflicting requirements within CEC’s Technical and Planning departments. The Planning Department wanted to minimise the impact to the existing footway widths; however, the traffic modelling element (CEC Technical) could not be approved without taking some existing footway to provide additional junction capacity. tie failed to manage

CEC in this regard leading to delays in completion of this design package and this element of work was not approved or completed during the duration of the project. This is despite numerous meetings between the CEC and SDS as well as considerable money being spent by the project on numerous iterations of design.

10.22 Airport Canopy and Kiosk: This element of design could not be completed prior to mediation due to tie's failure to manage the approvals and third party requirements. At the time of Mediation, tie had still to issue to Infraco a clear and defined scope to allow the Airport Kiosk and Canopy design to be finalised. This had knock-on impacts to the completion of Gogarburn Retaining Wall W14C. At this time, tie had still to agree the interfaces between BAA and the Airport Tram Stop to allow the design to be completed. Only when a design change was instructed by tie on 16 February 2011 were the Airport Kiosk and Canopy and W14C deemed sufficiently acceptable to CEC Planning for them to recommend the design to the Planning Committee for Approval.

10.23 In addition to conflicting requirements, comments were often provided after approvals had been obtained as mentioned above. This constituted a contractual change as SDS were entitled to recovery of the costs to amend the design to reflect the late comments. However, tie rarely agreed the valid changes and when they did, this was generally after a protracted period that impacted the completion of the design and ultimately the construction works. This can be evidenced by review of the minutes of the Design Change Meeting held fortnightly between tie and Infraco. When compared with the Control meetings held post Mediation and the progress made therein, the lack of progress made within the Design Change Meetings is all the more startling.

10.24 **Betterment and Preferential Engineering**: CEC through its Technical and Planning Departments sought additional improvements to the city centre (new road pavements, higher specification materials etc.) that, in other projects, would not normally have formed part of the core tram works or tram budget. Usually, additional requirements to be carried out at the same time (for cost efficiencies) would be funded by separate budgets. Examples include high specification OLE poles and street lighting columns, setts, etc. Whilst Infraco did not have sight of the original tram budget, it would be

highly unlikely for it to have allowed for the high specification materials ultimately requested through the Planning Process. tie made few if any attempts to "reign in" or control CEC or seek to value engineer any of the high specification items.

10.25 For example, in regards to road pavement works, Infraco's initial proposal for certain areas on-street was to only remove and replace the wearing course on the on-street sections [refer Pricing Assumption 12 of Schedule Part 4]. tie and CEC did not accept this and a design was developed for full depth reconstruction of all of the associated roads on which the tram tracks were to be installed. This resulted in contractual entitlement to Infraco to claim the additional costs and time due to the increase in scope. This was subsequently changed post mediation in a value engineering exercise and brought back to the concept behind Infraco's initial proposal.

10.26 **Third Party Issues**: I would acknowledge that tie were frustrated by a number of third parties that contributed to the delays and additional costs. tie failed to acknowledge or recognise that this was their risk under the Infraco Contract and delays due to third party issues entitled Infraco to additional costs and/or time. For example:

10.27 Scottish Water: There are numerous examples of Scottish Water ('SW') impacting the project through either not providing approvals in line with the design programme, or altering their position on what the approval constituted. The difficult approach of SW during tram infrastructure meetings was, in the opinion of my team, due to the numerous unresolved MUDFA issues and tie's unwillingness or inability to resolve these issues to the satisfaction of SW. I do have some sympathy with tie with regard to SW as even when CEC took over the management of the project, SW was the most difficult third party to deal with. It had been reported to me that at times it felt more like a Scottish Water Asset Improvement Project with the potential of a tram at the end of it rather than a tram project.

10.28 **BDDI to IFC**: The design changed substantially from BDDI due to the late issue of approvals and comments from the approval bodies (CEC, SW etc). The comments that were eventually provided with or prior to the approval required the design to be

substantially amended from that priced by Infraco in the majority of instances. As had been flagged to tie at the time by Infraco, the level of design at BDDI stage was lacking detail and there was considerable risk that in finalising the design, there would be significant additional costs. Once the IFC design was issued to Infraco, this needed to be reviewed against the BDDI design to understand the changes and assess whether the changes constituted a Notified Departure and the cost and time impact of these changes. Due to the size, scale and complexity of the project, this was a time consuming exercise.

10.29 **tie's involvement**: There are numerous examples of tie's failure to manage the elements of the design process which they had the obligation to manage under the Infraco Contract. I think part of this failure was a lack of understanding of their contractual obligations as well as their fundamental need to keep the design "open" in order to allow them to (incorrectly) maintain their positions that ""Infraco was not managing SDS" or "the Infraco works could not commence as the design was not complete" and deflect attention from the fact that they had insufficient funds to complete the entire project.

10.30 tie did not seek to drive any Value Engineering or Cost Engineering measures during the design process post novation. Rather they effectively sat back and pushed everything back to Infraco stating it was our obligation to secure all consents (whether it was core tram scope and regardless of the additional costs) and to construct what was consented to. An example of this is Roseburn Viaduct.

10.31 **Roseburn Viaduct**: This was a key element in the Programme and tie failed to manage the Approval process (as described above) to allow the completion of the design of these structures. This resulted in a delay of over 30 months. Infraco were unable to mitigate this delay by issuing an instruction to SDS to develop the design as it was not known what CEC and tie wanted or what they could afford. tie's approach was that this was for Infraco to resolve regardless of the costs or impact to the Programme.

10.32 The Roseburn Viaduct was a five span viaduct structure in the original SDS design. Infraco offered a Value Engineering ('VE') solution with a saving to tie of approximately £1.3 million during preferred bidder status. The VE Design encompassed 3 No. earth retaining walls, a small portal structure and one bridge over Roseburn Street. This solution was preferred by the Scottish Rugby Union ('SRU') and encompassed into their third party agreement. The solution was put forward by Infraco on the basis that tie obtained the saving provided that the revised design was approved and issued at IFC status to meet the Programme. Should the design not be approved and issued IFC by the required date, Infraco would construct the original design and tie would pay the additional £1.3 million.

10.33 Infraco instructed SDS to carry out the design in accordance with the VE proposal, following Contract award. However, during the initial consultation with CEC Planning, CEC Planning stated that they would not approve the VE design as it was not in line with their vision for Murrayfield. They advised that there was no point in issuing this for approval as it would be rejected. This was then raised to tie for them to step in to resolve. Despite assurances from tie that a second informal consultation would ensure the design could be taken forward, the result was essentially the same. It was in a third informal consultation that some progress was made. CEC Planning stated that cladding the structure and some other additional aesthetic measures would allow CEC Planning to potentially grant approval. CEC Structures had granted Technical Approval during this time for the VE structures.

10.34 This however was a departure from the agreed scope of the VE design and the additional measures proposed by CEC Planning resulted in considerable additional costs. The departure from the scope of the VE design constituted a Notified Departure. tie did not agree that this was a Notified Departure and no Change Order was issued to progress the design. Despite the efforts of Infraco and SDS to seek a compromise solution to resolve the issues, tie merely stated that this was an Infraco issue to resolve. It was in our opinion madness to finalise a design that whilst obtaining CEC Approval, would cost the project approximately an additional £0.5

million, particularly when it was clear that the project was already well over budget and with limited if any additional funds available at that time. The issue remained unresolved until after mediation.

10.35 After mediation the approach by CEC (in the role as Project Manager) was to develop the most cost effective solution. The matter was resolved expediently post mediation once tie had been removed from the discussions and highlights the different approaches as to how the project was managed by tie between May 2008 and March 2011 and CEC between March 2011 and project completion in May 2014.

10.36 **Design Completion:**

10.37 **Development Workshops**: tie departed from the Development Workshop process contained within the Contract. As described above, the Development Workshop process was necessary to identify misalignments between the SDS Design and the Infraco Proposals (i.e. trackform, overhead line equipment etc.) and amend (through a Mandatory tie Change under the Contract) the Deliverables in order to achieve an Integrated Design. Unfortunately, in the majority of cases, these Mandatory tie (Design) Changes were neither acknowledged nor instructed by tie. A Mandatory tie Change is contractually a deemed Change and is automatic. By rejecting the Infraco entitlement, tie effectively prevented Infraco from carrying out any of the changed works. This is due to the fact that by Clause 80.13 of the Contact, Infraco is not permitted to carry out any Works which constitute a Notified Departure until such time as Infraco's Estimate has been agreed or until the matter has been referred to the Dispute Resolution Procedure. I expand on this issue below.

10.38 In a lot of instances, tie did not issue the Mandatory tie Change Orders for all civils design changes required as a result of the Development Workshops. Of the nine items identified through the Development Workshop process as requiring a civil redesign, tie had agreed to 1 No item only at the time of Mediation. Infraco decided to progress the design in 2010 at Infraco’s cost and risk for the benefit of the Project.

10.39 For example, an Integrated Substation design incorporating Systems design was required. Infraco requested instruction from tie on 28 September 2009 following the Development Workshop process. As at Mediation (March 2011), no instruction had been issued by tie (18 month delay). Infraco instructed SDS (at Infraco cost and risk) to commence work on this change on 15 January 2010 to mitigate further delay.

10.40 **Civil Design Completion**: Infraco and SDS attempted to progress the completion of the design to mitigate the delay to the programme and ensure that once the other issues with tie were resolved (i.e. MUDFA, BDDI to IFC changes etc.), the construction works could commence as soon as practicable. Infraco and SDS engaged in a separate agreement which entailed SDS being paid additional monies to progress the design in the absence of valid Change Orders and payment from tie. The benefit that this process would have provided, was ultimately frustrated by tie due to the lack of resolution of third party issues.

10.41 **Design Assurance Statements**: Whilst perhaps not the biggest of issues in comparison to others detailed within my statement, I believe it is necessary to mention Design Assurance Statements (DASs). These were requested by tie (pre-novation of SDS) when tie realised that it could not review the design in a timeframe that would meet the design programme. The DAS was created as a statement of assurance from the Designer that the final design met the Employer's Requirements, the required standards etc. It was not possible to provide a completed DAS until the design was complete (including the incorporation of all design changes). However, tie continually tried to hold it against Infraco that the design was not fully integrated or assured as the DASs had not been issued.

10.42 Whilst not a contractual requirement, Infraco and SDS issued draft DASs to tie to demonstrate as much as possible that the design was as integrated and assured as it could be notwithstanding the significant amount of design changes to be instructed by tie.

10.43 **Infraco Relationship with SDS**: Whilst there were a number of issues between Infraco and SDS (as would be expected in a project of this size, scale and complexity), there were no disputes between the parties. SDS always managed to provide sufficient design information so as not to delay the Programme.

10.44 **Design Changes**: between the novation of SDS in May 2008 and March 2011, over 300 design changes were raised by or issued to the SDS Provider. Whilst some changes were raised by Infraco, the majority of the changes were raised to address additional CEC comments, new third party requirements or changes by tie or Transdev (tie's tram operator). This demonstrates the lack of control of the overall project by tie and their inability to manage CEC and other Third Parties in a timely manner in line with the Programme. The design changes impacted the completion of the design to IFC status and in some instances directly prevented the commencement of the construction works.

11. THE OPERATION OF CLAUSE 80

11.1 As noted above, tie and Infraco had a very different view and understanding of the operation of the Infraco Contract. To summarise that difference, Infraco's position was that where any of the Pricing Assumptions were found not to reflect reality (e.g. the design did change between BDDI and IFC in any of the stated ways (design principle, shape, form and/or specification) or the MUDFA Works were not complete in accordance with the programming assumptions), then a Notified Departure occurred and clause 80 of the Infraco Contract applied. This is clear from the wording of Schedule Part 4 and from the wording of clause 80. Under Schedule Part 4, a Notified Departure is defined as being "*where now or at any time the facts and circumstances differ in any way from the Base Case Assumptions save to the extent caused by a breach of contract by the Infraco, an Infraco Change or a Change in Law".* In turn Base Case Assumptions means *"the Base Date Design Information, the Base Tram Information, the Pricing Assumptions and the Specified Exclusions.*"

11.2 Clause 80.24 under the heading 'Notified Departures' states that:

"Where pursuant to paragraph 3.5 of Schedule Part 4 (Pricing) or pursuant to Clause 14 (tie Obligations), tie is deemed to have issued a tie Notice of Change as a result of the occurrence of a Notified Departure, the provisions of this Clause 80 (tie changes) other than Clause 80.19 shall apply".

11.3 Clause 80 is titled tie Changes and sets out the procedure to be followed in respect of tie Changes. This includes the duty on Infraco to submit Estimates within 18 Business Days of receiving a tie Notice of Change (deemed to have been issued on the date that either party gives notice to the other of the occurrence of a Notified Departure - clause 3.5 of Schedule Part 4). We could apply for longer to submit an Estimate where it was considered to be too complex to submit within 18 days. Clause 80 also sets out the detail of what should be included within an Estimate including cost and time implications as well as proposals about how we could mitigate the impact of the tie

Change. The Clause goes on to set out in detail how Estimates are to be agreed between the parties and what is to happen where agreement cannot be reached etc.

11.4 The crucial part of Clause 80 as far as BCUK were concerned was clause 80.13 which provides as follows:

"80.13 Subject to Clause 80.15, as soon as reasonably practicable after the contents of the Estimate have been agreed tie may:

80.13.1 issue a tie Change Order to Infraco, or

80.13.2 except where the Estimate relates to a Mandatory tie Change, withdraw the tie Notice of Change, in which case Infraco shall be entitled to claim the reasonable additional costs incurred by the Infraco in complying with this Clause 80 in relation to that tie Notice of Change including the cost of any abortive works where tie has instructed Infraco to commence works prior to the agreement of the Estimate.

*Subject to Clause 80.15, for the avoidance of doubt, **the Infraco shall not commence work in respect of a tie Change until instructed through receipt of a tie Change Order** unless otherwise directed by tie."*

11.5 I have highlighted the key words in bold above. In our view (and Lord Dervaird in his August 2010 Decision), this prohibited us from proceeding with Works which were the subject of a tie Change until we had received a tie Change Order from tie.

11.6 In contrast, tie's position was that matters such as delay to the MUDFA Works and design changes from BDDI to IFC were Compensation Events and could be dealt with by Clause 65 of the Contract. Alternatively they argued that Infraco were in breach of contract by failing to submit Estimates in time and to the correct standard. This was a big area of disagreement and one which was already ongoing by the time I joined the project in March 2009.

11.7 What cannot be overlooked on this Contract was the sheer volume of change that we encountered from day 1. From very early on, and before my arrival, the team were dealing with a huge volume of Notified Departures, which covered both MUDFA delays and a huge amount of (BDDI to IFC) design change. Each of these Notified Departures required to be progressed in accordance with the clauses of Clause 80 which I've identified above. It was impossible for the on-site team to progress this volume of change in accordance with the tight timescales which were contained within clause 80 (18 days for the Estimate), or if we did produce Estimates within this time period, to make them as fully encompassing as the clause requires. As a result of this, the team had repeatedly sought agreement from tie (in accordance with the provisions of clause 80.3) that we would get longer to submit Estimates. tie generally refused these requests. They repeatedly made complaints about Estimates lacking detail or being late and how this was hampering progress of the project. There was little or no recognition of the sheer volume of change we were having to deal with or the fact that some estimates first required the design to be completed that was also subject to the change mechanism and also required SDS to submit an estimate (within 18 days) and receive instruction prior to commencing the design works.

11.8 One of the very first letters that I signed dated 3 March 2009, deals with this specific issue. This letter was issued in response to a letter from Steven Bell dated 12 February 2009 [PD CORR 145]. In response to criticism about Infraco's approach to Estimates, we stated the following:

"Your description of how BSC are dealing with change estimates is inaccurate and misleading. The extraordinary number and magnitude of changes being processed clearly demonstrates both (the) incomplete state of design and the impact upon our works of issues you should have already resolved through your enabling works contractor.

BSC are required under the contract to notify you of changes, and are doing so as quickly as possible. It is usually impossible to provide estimates within the required period because the level of detail required is considerable. We are making significant

efforts to inform you when estimates will be provided: for you to claim that you receive no coherent explanation of why estimates are subject to delay is simply disingenuous..."

11.9 It is not usually my approach to write letters in such terms or to use such accusatory language. However, this is a good example of the tone of all of our correspondence with tie. We were continually being accused of 'bad behaviour' and refusing to get on with what we were there to do. tie used the media continually to this effect as well and we were restricted by the Infraco Contract from being able properly to answer these accusations. However tie's accusations were unfounded. They would not accept how the Infraco Contract was intended to work and so everything became a battle.

11.10 The letter that I sent to tie on 3 March 2009, also went on to deal with the specific issue of whether we could commence work which was subject to a Notified Departure, without a tie Change Order or without the matter having been referred to the dispute resolution procedure. On this issue the letter states:

"You note in particular BSC's "stated position of refusing to commence work directly on activities affected by notified changes." BSC's true position is strictly in accordance with the contract, which clearly describes the process for managing change. We have repeatedly attempted to agree alternative methods with you for progressing urgent works in key areas on an acceptable reimbursement basis, but are unable to obtain your agreement to interim procedures that fairly compensate us. To be absolutely clear, we are not refusing to work, even if there is no contractual obligation to do so, but simply request an appropriate instruction."

11.11 The reference in this letter to repeated attempts to agree alternative methods for progressing urgent works, references an acknowledgement by both parties that the processes contained within clause 80 were slowing down our ability to proceed with works. However, despite this, we did proceed with works which were the subject of Notified Departures, even where there was no agreement of the Estimate, and no tie Change Order. Examples include large portions of the off-street works (where we

were less affected by the continued presence of the MUDFA Contractor) and the Haymarket Yards.

11.12 In the letter to Pinsent Masons of 18 June 2015 which contained questions which the Inquiry would like to put to me, question 12 was in the following terms:

"Why did Bilfinger insist on all variations being estimated and agreed in advance of work starting? In the event of disputes on one particular aspect of the project why was work not moved elsewhere pending resolution of the dispute?"

11.13 I do not agree with the wording of this question at all which misunderstands the mechanisms in the Infraco Contract and which implies that we refused to do work where the value of 'variations' was not agreed. First of all, the Infraco Contract does not recognise 'variations' in this context. There are Notified Departures to be dealt with under Clause 80 and also Compensation Events (clause 65). In terms of Notified Departures, these can only be dealt with under Clause 80 and by virtue of Clause 80.13, we were precluded from proceeding with work which was the subject of a Notified Departure (and therefore a Mandatory tie Change) where a tie Change Order had not been issued or the matter had not been referred to the dispute resolution procedure. For the duration of the Project until Mediation, this was a key issue of dispute between us and tie repeatedly refused to recognise what the Infraco Contract said. We were ultimately proven to be correct in our interpretation of how Notified Departures were to be dealt with and I refer to this below.

11.14 Along the way we had tried to agree different mechanisms with tie which would allow urgent/ priority works to proceed, even though there was no agreement on outstanding Estimates in respect of Notified Departures. Before I arrived on site, tie had proposed a Protocol which would allow them to instruct works which they deemed to be 'priority works'. This would have allowed tie to instruct works to proceed immediately, at the same time as a process got underway to agree cost and time implications.

11.15 As a company, we could not agree to what was proposed by tie. This wasn't done out of obstinacy or a hope on the part of BCUK of holding tie to ransom somehow (which

is what tie tried to portray in the press). Rather, it was because there was little belief that we could ever agree Estimates with tie where they fundamentally refused to acknowledge the importance of the Pricing Assumptions under Schedule Part 4. I understood from discussing matters with my colleagues and reviewing the relevant correspondence (including our letter of 4 November 2008 - 25.1.201/CHBB/837) that we wanted at least the reassurance of a cap on the level of work which could be instructed in this way, and a commitment by tie to respond to the outstanding Estimates which they were then sitting on. tie's Protocol had also suggested that they could 'instruct' works to be carried out under Clause 80.13, and we did not agree with that interpretation. However, it is simply incorrect to say that Infraco were not continuing with works without instructions. We did so and even looking at the letter I've referred to of 4 November 2008, this is clear. The penultimate paragraph of that letter provides:

"We have, notwithstanding this uncertainty (about the approach to clause 80.13 being proposed by tie) and following assurances given at the aforementioned Gallagher/Walker/Flynn meeting, continued with the works for which a relevant valid instruction has not yet been received. However, we are not willing to allow this situation to continue. It is therefore crucial that you and we reach urgent agreement on a mechanism for urgent instructed change that does not rely on clause 80.13...."

11.16 We never managed to reach agreement with tie on this. We continued with what were called the 'goodwill works'. tie never changed their opinion on how the Infraco Contract was to be interpreted on key issues. Ultimately, as tie got more and more entrenched in their position, we took the decision to cease good will works but this was not until September 2010 (I refer to this further below).

11.17 It should be noted that there was always a contractual remedy for tie if it wished to have Infraco proceed with works which it considered to be urgent. In these circumstances, it was open to tie to refer a disputed Estimate to the Dispute Resolution Procedure, in which case it could instruct Infraco to progress with the works which were subject to Change (including which were considered to be a Notified

Departure) with Infraco being entitled to be paid its 'demonstrable cost' for such work (this is with reference to Clauses 80.15 and 80.16 of the Contract). It was always therefore open to tie to use this mechanism to have Infraco proceed with works where Estimates were not agreed.

11.18 **Murrayfield Underpass Adjudication (INTC 109)**

11.19 Ultimately, we took the decision in mid 2010 to refer this whole issue to adjudication. We did this in the hope of unlocking this particular dispute and in the belief that we were right in our interpretation of the Infraco Contract.

11.20 This dispute referred to the Murrayfield Underpass which was a reinforced concrete structure at Murrayfield. tie had been notified that a Notified Departure had occurred because the Design shown on the Issued for Construction drawings differed from the Design shown on the Base Date Design Information. This was notified by way of INTC 109 in September 2008. The cost of this tie Change was estimated by Infraco at £134,296.71. On this issue, tie accepted that a Notified Departure occurred, but disputed this value. However, tie had then issued us with a letter on 19 March 2010, instructing us to proceed with these works under Clause 80.13 of the Infraco Contract. We believed that this was an instruction which tie were not permitted to give us, and moreover, that we precluded from proceeding with these works until the Estimate had been agreed.

11.21 This was referred to Lord Dervaird, one of the adjudicators named in the Contract. He issued his decision on 7 August 2010 and found entirely in our favour. In short, what he determined was that in the absence of an agreed Estimate, Infraco is not obliged or permitted to commence or carry out works associated with a tie Change (Mandatory or otherwise). I expand on the key principles established by this adjudication in Appendix 1 to my statement.

11.22 Unfortunately, and as with the majority of adjudication decisions issued in our favour, tie refused to accept what this adjudication decision determined. They continually came up with arguments which ran contrary to this decision and continually insisted

that we must proceed with the Works, whether or not they were connected to an Estimate which had not yet been agreed by them. This continued right up until mediation. It was also typical of tie's whole approach to any adjudication decision which went against it (as they mainly did on all points of principle) – tie simply stuck to its position and the parties became more and more entrenched.

11.23 tie issued a letter to us on 10 August 2010 as a result of Lord Dervaird's decision. This letter intimated that tie believed they could still rely upon clause 34.1 which provides that:

"The Infraco shall construct and complete the Infraco Works in strict accordance with this Agreement and shall comply with and adhere strictly to tie and tie's Representative's instructions on any matter connected therewith (whether mentioned in this Agreement or not) provided that such instructions are given in accordance with the terms of this Agreement and will not cause Infraco to be in breach of this Agreement..."

11.24 tie's position was that where it disputed a Notified Departure had occurred and either there was an Estimate (provided by Infraco) or there was not, it was entitled to rely upon Clause 34.2. We did not consider that to be correct and it was not in accordance with Lord Dervaird's decision. He makes the point that the question here is whether an instruction given by tie under Clause 34.1 would 'be in accordance with this Agreement'. He concluded (paragraph 21 (v)) that it would not i.e. that parties were directed to clause 80 where there was a Notified Departure and that in terms of clause 80.13, tie could only issue an instruction where an Estimate had been agreed (the last part of 80.13) or where Clause 80.15 applied. tie's interpretation of Lord Dervaird's decision was wrong.

11.25 I am concerned that this question posed by the ETI seems to indicate a misunderstanding of the Contract [this is question 12 of the ETI letter to Pinsent Masons dated 18 June 2015]. If Clause 80.13 and Lord Dervaird's decision is properly examined, it should be clear that we were correct that as far as Notified Departures

were concerned (which is what we are talking about, rather than 'Variations'). We were not obliged to proceed with works unless there was an agreed Estimate and tie had issued a tie Change Order (or an order, where applicable, under Clause 80.15).

11.26 In terms of the second part of this question, where works were not held up by tie's refusal to accept what the Contract said and to apply its provisions correctly, we did proceed with works. What must be understood however is that the whole site was generally held up by delays caused by a lack of agreement to critical changes, late completion of design and incomplete MUDFA works. There were large stretches where there was very little that we could do at all. In advance of the mediation which I refer to below, two drawings were produced which showed the extent to which the whole site was affected by INTCs which were either not agreed, or had been specifically rejected. These drawings [ULE90130-SW-DRG-00803 and 804] were shown to tie, although not produced with the mediation documents. They show that there were only very small sections of the works which were not affected by non-agreed INTCs. I would dispute that we didn't try to mitigate delays where we could by proceeding with work that we could do.

12. **ADJUDICATIONS AND THE DISPUTE RESOLUTION MECHANISM**

12.1 There were 12 adjudications in total between the Infraco and tie during the Project. There were other disputes which didn't quite make it to adjudication stage. As noted, there was also an adjudication on Princes Street which never reached the stage of a decision being reached by the Adjudicator, because it settled after the mediation in March 2011.

12.2 As I mentioned above, we had discussed early on with tie that it would be good to get clarity on the interpretation of the Infraco Contract and resolve the disputes between the Parties, by referring certain key and important issues to adjudication. By way of explanation, the dispute resolution procedures in the Infraco Contract were contained within Schedule Part 9 to the Infraco Contract. This provided that where a dispute had arisen, the Parties were to follow a staged process to try and resolve the issue. This staged process included:

12.2.1 a meeting between tie and Infraco's Representatives to be held within 3 business days of either party notifying the other of a dispute;

12.2.2 if that meeting either didn't take place or didn't resolve matters, the parties were to serve a written Position Paper on each other within 7 days of the notification of the dispute. That Position Paper was to state in reasonable detail that party's position and what it was looking for, from the dispute, as well as commenting on the other party's position;

12.2.3 Once the Position Papers had been exchanged, the Chief Executives of Infraco and tie were to meet to seek to resolve the dispute in good faith;

12.2.4 If that didn't work and there was no settlement of the dispute within 20 business days of the original notification of the dispute, then the Chief Executives of both companies had a further 5 days to agree how to resolve the dispute. That could be by

(a) mediation as set out in Schedule Part 9

(b) adjudication again as per Schedule Part 9 procedures; or

(c) litigation in the Court of Session

12.2.5 If they couldn't agree how to resolve the dispute, then mediation became mandatory, before the party wishing to raise the dispute could refer it to adjudication. There were many mediations which took place on issues which I have discussed elsewhere in this Statement, including the dispute we had in relation to the sums due to us under the PSSA, MUDFA 1 etc.

12.3 Normally, we would have welcomed a stepped dispute resolution procedure like this because if parties can properly air their differences, there is always a possibility that the dispute can be resolved without having to resort to formal adjudication or court proceedings. However, here, because relations were so bad, there was never any agreement at meetings, nor was there even an agreement of which method of dispute resolution the parties wished to adopt to resolve the issue. It is perhaps understandable why this came to be the case. As I've stated throughout this statement, tie refused to accept what the Infraco Contract said, and in particular refused to accept the risk allocation as per Schedule Part 4 of the Infraco Contract. This was a point of principle and a point of contractual interpretation, and not something where concessions could be made in a meeting between the Chief Executives.

12.4 The result of all of this was that the proposed meetings were merely perfunctory in order to get to the stage of mediation. The mediations were almost exclusively before Eileen Carroll who I mentioned above and who was the mediator in the mediations which took place in summer 2009. Again and unfortunately, these mediations were a waste of time because tie refused to concede that our interpretation of the Infraco Contract was correct and we could not compromise on our clear contractual entitlements. The mediations which took place never lasted the whole day they were set down for and were really only held in order to allow the party wishing to refer the dispute to adjudication to do so. The adjudications themselves were 28 day

processes, which could be extended by up to another 14 days with the approval of the party referring the dispute or longer with the approval of both parties. The adjudicators were obliged to issue reasons for their Decisions.

12.5 In Appendix 1 to this Witness Statement, I have inserted my understanding of the importance of these adjudication decisions. On major points of principle, some of which I've already covered above, the decisions without exception were in favour of Infraco. It was very frustrating for us that right up until mediation, tie refused to accept the validity of these Decisions and refused to implement them, both on an individual basis and by refusing to accept that they set broader precedents for how other disputes would be determined. Had they done so, I believe that this would have unlocked the ongoing battles and disputes, and should also have led to tie identifying and confirming to CEC at a much earlier stage, that it did not have sufficient funding to complete the whole of the planned Edinburgh Trams Network.

13. CORRESPONDENCE

13.1 From around early 2010 until mediation, tie ramped up the amount of correspondence we received on a daily basis. On occasion we were receiving up to 50 letters a day. These letters continuously made unsubstantiated allegations that we were failing to perform and failing to comply with our contractual obligations. It took an enormous amount of time, effort and manpower to respond to this correspondence. Our commercial team, led by Kevin Russell who reported to me, took on board the task of responding to these letters. At the heart of almost all of it was the same disagreement about the way in which the Infraco Contract was intended to operate. These letters dealt with a huge number of issues, many of which I refer to elsewhere in this statement.

13.2 For example, on 1 April 2010, we received a 10 page letter from tie [INF CORR 4648] which covered a large number of issues and which was intended to provide a response to letters which the Infraco had sent to tie which were listed at the end of the letter. I've read this chain of letters to remind myself of the issues which were being discussed at that time. The letters which we were receiving from tie showed fundamental disagreements on how the Infraco Contract was intended to operate. The sheer volume of correspondence which we were receiving from tie at this time made it a real challenge administratively to respond to everything appropriately. For example, in our response to this 10 page letter [letter 25.1.201/KDR/5689 dated 21 May 2010], I made reference to the fact that we were having to respond to over 100 letters received from tie in the space of one week alone.

13.3 The issues covered in this chain of letters included the following:

13.3.1 The complete inability to agree a workable Construction Programme with tie. I mention above the fact that we worked with tie to try to agree a revised Programme for the Works but it was impossible to get any agreement to this with tie because of their failure to accept the delay which we were reporting. tie's position remained throughout that we could do more to mitigate delays

or that our programmes were in some way inadequate. We refuted this. In reality, we believed that the real reason tie would not accept a revised Programme was that they would then have to report to CEC and others that the Project was at least 2 years in delay (for reasons which were not Infraco's responsibility);

13.3.2 Continuous disagreement about the operation of Clauses 65 and 80 and their interaction. As noted above, Infraco was subsequently found to be correct in its interpretation of the Infraco Contract on these key issues;

13.3.3 Following on from this, tie continually insisting that we were obliged to comply with instructions they issued to carry out works, either under Clause 34, clause 80.15, 80.16 or based on other interpretations of clause 80.13. Again, tie were subsequently held to be wrong in their interpretation of the Infraco Contract (with reference to the Lord Dervaird adjudication decision on Murrayfield Underpass);

13.3.4 tie continually alleging that Infraco's interpretation of Clauses 65 and 80 made 'no commercial sense';

13.3.5 Continuous allegations that Infraco would have to prove that delay had not been caused by its own mismanagement of the SDS Designer;

13.3.6 Allegations that one of the reasons tie could not issue the tie Change Orders that were required by Clause 80.13 was because Infraco was inflating the amount it was looking for as contained within Estimates;

13.3.7 tie stating that it could not issue tie Change Orders because of the absence of competent Estimates submitted by Infraco. We disputed this strongly and I have made reference to this ongoing debate on Estimates (which again was ultimately determined in Infraco's favour). Notwithstanding this, it is rather obvious that if tie rejected the principle of a change having occurred, then the subsequent matter of an Estimate is irrelevant;

13.3.8 By this point in time, tie was repeatedly referring to Infraco as a 'delinquent contractor' and was accusing us of responding to their letters in 'abusive and inflammatory language'. I accept that the wording of the letters going back and forth between tie and Infraco was more aggressive that I am used to using in contracts of this nature. However, our need to respond robustly was driven by the very aggressive position adopted by tie and its complete refusal to accept what the Infraco Contract said.

13.4 I believe that a letter which I sent to tie on 1 March 2010 [25.1.201/KDR/4836] accurately sums up why we were obliged to enter into correspondence of this nature, and expresses the frustrations we were experiencing:

"It would appear from this letter [reference to tie's letter of 19 February 2010 [INF CORR 4032] which was part of this chain] *and from others received by us over the past few days, that there has been a deliberate decision by tie to focus on areas where it is alleged that Infraco is failing in its contractual obligations. The continued focus on Estimates is one such area. We are of course acutely aware of our obligations to assist you with audits and to assist you in complying with your own statutory duties, and will continue to oblige in this regard. However, if this project is to move forward in any meaningful way, there must be a corresponding acknowledgement by tie of its contractual obligations. This includes an acknowledgement that this contract (which was negotiated at arms length by large organisations over many months and with considerable legal advice) is clear it its terms. tie cannot now complain that certain conditions are not to its liking and therefore de facto seek to set them aside. tie must accept that this is not a fixed price contract and that the convenanted pre-requests for the execution of the Works, have not been fulfilled. Once this is acknowledged, we would hope that the project can be administered in such a manner as to achieve real and substantial progress by permitting Infraco to comply with its obligations under the contract."*

13.5 Unfortunately and as narrated elsewhere, tie never got to the stage of accepting what the Infraco Contract stated, nor did it acknowledge the contractual risks stated therein.

It was another year (mediation in March 2011) before we seemed to get any breakthrough at all in terms of tie/ CEC finally accepting that we had been in the right in terms of our stated position on the Infraco Contract throughout. It was also a few days after I sent this letter, that Richard Walker wrote to CEC on behalf of the Infraco, again expressing our frustration (letter dated 8 March 201 referred to in section 14 of this statement). I refer to this letter as it is a good summary of all of the issues which were ongoing at that time.

14. **LETTER TO THE CITY OF EDINBURGH COUNCIL MARCH 2010**

14.1 One step which we did take was that the Infraco consortium, all three members, wrote to the City of Edinburgh Council in a letter of 8 March 2010. This letter is referred to in the document which we prepared in advance of the mediation in March 2011. CEC was the Financial Guarantor to the Project. The reason for sending this letter, at that point in time, was to try and go above tie who we felt were not taking a pragmatic approach to the Project at all, and who we suspected were not properly reporting matters to CEC.

14.2 The letter references the following issues:

14.2.1 the ongoing MUDFA delays which were having a significant impact on our works and where tie continued to be unable to tell us when the MUDFA works would actually be complete;

14.2.2 tie's intransigence and its refusal to address the realities of where we found ourselves in a constructive manner;

14.2.3 reference to tie's misleading correspondence which made serious accusations and representations of fact which we believed were demonstrably incorrect;

14.2.4 that tie was wrong to continue to insist that it had signed a lump sum, fully fixed price contract with the consortium as evidenced by the pricing assumptions which formed an integral part of the contract. We stated that tie had to accept the risks enshrined in Schedule Part 4 and that having done so, tie either needed to make arrangements to have appropriate funds made available or review the project scope with a view to agreeing a reduced scope which could be performed within the available budget;

14.2.5 details of the points of principle which had been established by the adjudication decisions which had taken place by that time and which were entirely decided in Infraco's favour on the points of principle before the

adjudicators (Gogarburn, Carrick Knowe and Russell Road Retaining Wall) and the fact that tie refused to acknowledge what those rulings meant to the Project;

14.2.6 the fact that tie had accused Infraco of 'delinquent behaviour' for not proceeding with works which were subject to a change without prior agreement of tie and the fact that Infraco was only complying with the Infraco Contract in this regard which tie failed to acknowledge;

14.2.7 unfounded and publicly made accusations of tie in relation to the alleged inflation of Infraco's cost estimates (with specific reference to the Russell Road Retaining Wall 4 Dispute which I refer to below);

14.2.8 the reason why Schedule Part 4 existed and the agreed risk allocation in the Infraco Contract;

14.2.9 the fact that Infraco had proposed an On-Street agreement for the remainder of the On-Street Works (similar to the Princes Street Supplemental Agreement which I discuss above) but tie unilaterally terminated those discussions;

14.2.10 We also informed CEC I that the Project was at least two years in delay and that we estimated additional costs in excess of £100 million;

14.2.11 We referenced the fact that we were concerned that tie was considering terminating the Infraco Contract and that we did not believe that there was a legal basis for doing so;

14.3 This letter was sent by Richard Walker but was prepared by the wider team for BCUK and I would have reviewed and approved it before it was sent. It is a very good and accurate record of the issues ongoing at that time and I think expresses well the frustration we felt with tie. The conclusion of this letter was however that we were committed to finding a consensual approach with all project parties which would enable the project to proceed with a defined scope and within an appropriate and

available budget. It is very unfortunate, I believe, that CEC did not take the opportunity at this time to discuss these matters with us. Tom Aitchison, the Chief Executive of CEC at that time, sent a letter to Richard Walker on 21 April 2010 which stated that he did not agree with the statements of fact in Richard's letter of 8 March, that he was extremely concerned about lack of progress on the project but that the issues would need to be resolved between the principal contracting parties. I believe that this was a missed opportunity for CEC to step in and resolve the mess that the Project was in by this time – this only happened once Sue Bruce joined CEC as Chief Executive in place of Tom Aitchison.

15. **USE OF THE MEDIA BY TIE**

15.1 Clearly we had some very substantial disagreements with tie on many points of principle including the interpretation of the Infraco Contract.

15.2 Clause 101 of the Infraco Contract deals with Confidential Information and provides obligations on both parties (tie and Infraco) to treat all Confidential Information belonging to the other Party as confidential and to safeguard it accordingly. Confidential Information concerned information which had been designated as confidential by either party, including matters such as commercially sensitive information and intellectual property rights.

15.3 Clause 101.14 provides that *"Any public relations material, press releases, public presentations or conference engagements in relation to this Agreement planned by the Infraco requires tie's prior approval".*

15.4 There is no such similar clause requiring Infraco's agreement to any such public relations material or activities planned by tie. This was often referred to in the press as a 'gagging clause' which prevented Infraco from telling its side of the story in the constant media campaign launched by tie and its individual members, which was aimed at portraying BCUK in a very bad light in the Scottish press and beyond.

15.5 Throughout the Project, tie sought to portray us as the party who were creating all of the delays and the problems and who were wrongfully refusing to carry out works and holding the Project to ransom (usually expressed as demanding increased payment before we would start any work). We felt we were unable to respond to this to explain the truth – that we were only doing as expressly set out in the Infraco Contract by seeking agreement of Estimates and the issue of a tie Change Order before we were permitted to start work which was subject to a Notified Departure. This came to a head when David Mackay, the Chairman of tie, resigned from his post in November 2010. In an article in the Scotsman newspaper on 3 November, Mr Mackay described BCUK as a *"delinquent contractor who scented a victim, who probably greatly under-bid and who would use the contract to make life extremely difficult for the city."* This resulted in

BCUK for the first time feeling the need to respond to what was arguably a defamatory statement. A decision was made by the Board of Directors of Bilfinger to commence legal proceedings against David Mackay personally, in respect of this defamatory statement. Although this action was withdrawn for commercial reasons and to prevent escalation of the problems faced by the Project, it is another example of how poor our relationship with tie was by this time.

15.6 At other times, rather than accepting that they had lost adjudications, tie used the press to state that it had been necessary to take the dispute to adjudication in order to push back on the exorbitant amounts of money which the Infraco were looking for, for individual changes. One such example is in relation to the Russell Road Retaining Wall Two adjudication (which I have summarised in Appendix 1 to my statement). tie were entirely unsuccessful in this adjudication, but still sought to portray this as a 'victory' of sorts, claiming that the Infraco had been looking for an additional £5 million and had only been found entitled to payment of an additional £1.4 million. This was a complete misrepresentation of the truth. The total value of the Notified Departure (which including for removing contaminated materials and other matters) was in the region of £5 million. However, the whole Notified Departure was not referred to adjudication. The section that we did refer was only to do with the direct costs of the changes to the piles and foundations. Our claim was for £1.8 million and we were awarded £1.4 million in relation to that claim - a substantial win. For tie to claim this as a victory and that they were “protecting the public purse” when compared with the delay and legal costs to achieve a determination is frankly absurd.

16. FURTHER DISRUPTIVE TACTICS BY TIE IN THE PERIOD LEADING UP TO MEDIATION IN MARCH 2011

16.1 Rather than focus their energies on managing the delivery of the Project and finding a way through all of the issues and disagreements, tie continually sought ways in which to bring pressure on Infraco, with a view to forcing us to accept a compromise in relation to our contractual position and contractual entitlements. We had rarely seen such aggressive behaviour from an Employer on any project we had worked on worldwide.

16.2 tie's approach was reflected in a number of campaigns to bring pressure on us. These included the following:

16.3 **tie's use of Audits**

16.3.1 In my opinion, tie sought to abuse the audit process provided for in the Infraco Contract, for the purpose of trying to find evidence which it could use against Infraco.

16.3.2 Clause 104 of the Infraco Contract is headed 'Information and Audit Access'. Clause 104.2 provides as follows:

'The items referred to in Clause 104.1 (all Deliverables, and invoices, timesheets to support claims for reimbursement....) shall be kept in good order and in such form so as to be capable of audit (including by electronic means) by tie's Representative, tie, CEC, tie's auditors or CEC's auditors or any other third party. The Infraco shall make such records available for inspection by or on behalf of tie's Representatives, tie, CEC, tie's auditors or CEC's auditors or any other third party at all reasonable times during normal working hours on not less than one Business Day's notice...."

16.3.3 The frequency of such audits was to be reasonable. Clause 104.2 also stated:

"In addition to the requirements of Clause 104.1 and 104.2, the Infraco shall provide to tie's Representative, tie, CEC, tie's auditors, CEC's auditors of their successors, any other information, documents, records and the like in the possession of, or available to the Infraco (and to this end, the Infraco shall use all reasonable endeavours to procure that all such items in the possession of the Infraco Parties shall be available to it) as may be reasonably requested by tie's Representative, tie, CEC, tie's auditors of CEC's auditors for any purpose in connection with this Agreement and/or the Infraco Works.."

16.3.4 From mid-2009, tie started to request a high frequency of audits and audit meetings. From the start, the way in which tie managed the Audit process was confrontational. It engaged a plethora of outside consultants at further expense to the Project, to attend these meetings. The audits were also attended by lawyers, and we instructed Pinsent Masons to attend on our behalf. In my opinion, the approach which tie adopted at these audits was entirely unreasonable. They were not looking for information to aid the Project in any constructive way; instead they were looking for evidence which they could use against us in their ongoing campaign to deny our entitlements under the Infraco Contract. In the Audits held in 2010, there was a clear design slant to the issues raised by tie. They were trying to find evidence to prove that Infraco was not managing the design process or fully integrating the design.

16.3.5 I have reviewed a couple of the letters issued during this process, including a letter from tie to me of 30 June 2010 (INF CORR 5464/RB) and my response of 5 July 2010 (ETN(BSC)TIE$Q&ABC#051041). In tie's letter of 30 June 2010, they accused Infraco of not co-operating and engaging in the audit process. Attached to the letter was a schedule of additional information required. This was all very much focused on our dealings and discussions (commercial and otherwise) with the designers SDS. The list is huge, it was

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taking days and days of our time to pull information together and even where we stated that we did not have some of the information tie were looking for (such as hand written notes of commercial meetings between SDS and Infraco), they would not accept this as an answer. It is clear to me that tie were looking for ammunition to use against us in their continuing allegations that we were not progressing with the Infraco Works and were not managing the design process properly. tie had also been asking for information about compensation events. Through Pinsent Masons we had confirmed that we would be following the procedure in the Infraco Contract in relation to Compensation Events, that is, Clause 65. The general tone of this letter was to complain about our lack of reactiveness to the audit request. My response of 5 July 2010, sets out our position on a lot of these issues. We pointed out that there did not seem to be any clear audit objective and that the time spent in trying to comply with these audit requests, was time which would have been better spent in progressing the Project. In addition, the schedule that tie produced of the documentation they were looking for, made it clear that they must already be in possession of this information they were asking for. My conclusion in this letter sums up Infraco's position in response to these audit requests - we thought that the time that it was taking us to comply with the audits was excessive and unnecessary and that tie were trying to interfere and disrupt our ability to perform our contractual obligations. I referred tie to clause 6.3.4 of the Infraco Contract whereby under the partnering obligations, neither party was to interfere with the rights of the other party or hinder or prevent the other from performing its obligations under the Contract. I also referred to the duty contained in Clause 118 which stated:

'Wherever in this Agreement a Party is required to make any determination or give any decisions, instructions, opinions or consents or to express satisfaction or approval or otherwise take any action, that Party shall act fairly and reasonably within the terms of this Agreement (save where the

Agreement expressly states that tie is to have absolute discretion), and having regard to all the circumstances."

16.3.6 We definitely did not believe that tie were acting reasonably in relation to these audit requests, but rather, were looking for ammunition to use against Infraco in its ongoing attempt to wear us down and to persuade us that we were incorrect in our interpretation of the Infraco Contract and our attempts to pursue our contractual entitlements.

16.4 **Permit to Work**

16.4.1 Before starting work on any particular site, we required to obtain a Permit to Work which was to be issued by tie. The requirements for obtaining a Permit to Work were that we had to submit certain documents as set out in Schedule Part 3 to the Infraco Contract (the Code of Construction Practice, clause 3.4 thereof). In the areas where we were able to progress works, we had been operating this system successfully and obtaining Permits to Work from tie.

16.4.2 In around March 2010, tie started to change the basis of what it required from Infraco before it would issue Permits to Work. This came to a head in the section of work between Shandwick Place and Haymarket. This area had been badly affected and held up by ongoing MUDFA Works. However, in early 2010, we understood that the works which by that time were being carried out by Clancy Docwra, would shortly be completing.

16.4.3 tie's position was that we had failed to provide all of the documents we were obliged to submit in order for the Permit to Work to be issued. They insisted on the proposed work site being divided into smaller packages and required additional documents (including Method Statements which we did not consider required tie approval). They also stated that they would not issue Permits to Work where we could not produce executed subcontracts to which all three of the Infraco members were party. We did not believe that

any of this was a condition which was required before we were able to commence our works in this area. There was a series of correspondence between us and tie which dealt with this issue [see tie's letters of 8 April (INF CORR 4736 and 24 May 2010 (INF CORR 5133) and Infraco letters of 22 April 2010 (25.1.201/BDo/5499)] and 29 April (25.1.201/DG/5564)

16.4.4 At around this time, I received a marked up drawing of the Haymarket area, which showed that although the utilities works were shortly to come to an end, there were a large number of utilities still below the ground in the area where we would be carrying out our civil works. In addition and without advising us in advance, we learned through the press that tie were intending to reopen the Haymarket area to traffic to give drivers respite from the utilities diversion work which had been going on and which had been planned for completion by the end of 2008 (see Scotsman article of 30 March 2010). It therefore seemed clear to us that the reasons tie were giving for refusing to grant us a Permit to Work in the Haymarket area were entirely spurious. This was an area which had already been subject to a great deal of design change (changes from BDDI to IFC) and where there were many Notified Departures which had not been agreed with tie, including in relation to the delays caused by MUDFA. Nevertheless it was one of the areas where we were prepared to carry out work on a 'goodwill basis'. Given that the Project was so far behind schedule at this time, it was absurd for tie to introduce spurious reasons (for not issuing the Permits to Work) which would not have prevented us from progressing (such as subcontracts not signed by all three Infraco members) with the physical works. It seemed clear to us that tie's real reason for refusing us the Permits to Work was that as soon as we opened up the road to start carrying out our works, we would discover utilities which had not been diverted which would mean notification of more Notified Departures and a physical inability to proceed with our works. tie had in any case decided that the road should be reopened to the public and we were not therefore to be permitted access.

16.4.5 Given that we were receiving so many letters at this point from tie complaining about our refusal to carry out work where tie Change Orders had not been issued, and complaining about our performance generally, if tie had truly wanted us to progress with the works, they would not have put barriers in our way in this manner. tie's position was also totally inconsistent in this regard - there were other works underway elsewhere on the Site where the absence of a subcontract signed by all three parties had not prevented us from progressing (e.g. Barr's work at the depot, Expanded, and MacKenzie). There was an adjudication on the issue of Subcontracts (which I explain in Appendix 1 to this statement) and whilst tie were found to be correct on the issue that all subcontracts required to be signed by all three Infraco members, it still was not a condition precedent to the issue of a Permit to Work.

17. ALTERNATIVE PROPOSALS MADE BY INFRACO

17.1 Richard Walker's letter of 8 March 2010 to CEC, also introduced the fact that we had been looking at alternative ways that the Project could be delivered. As I said above, I came to Edinburgh to deliver the Project, not to get involved in protracted disputes many of which were of a very legal nature. Also as a company, we wanted to finish this Project as soon as we could and find a way to resolve the intolerable situation we found ourselves in. We therefore made a series of proposals to tie, about what we might be able to deliver for them for the budget that was available to them.

17.2 The first of these was called the On Street Supplemental Agreement. The basis for this agreement was almost identical to the PSSA which had allowed the works on Princes Street to proceed. This had been prepared by us but based on a jointly proposed strategy to try and overcome the effect of the very delayed MUDFA Works which were badly affecting the on-street sections of the Project, as well as the changes (Notified Departures) which remained unresolved and which were therefore holding up our ability to progress with the Works. In fact, this continuation of the PSSA to all other On-Street works, was one of the issues which was part of the mediation before Eileen Carroll at the end of June 2009, which I refer to above. Although we didn't reach agreement on such a revised deal at that time, we agreed to continue the discussions and proceeded to work up a proposal. We got so far with this proposal and we believed that it would be a good workable agreement which would allow works to progress even where the cost of changes and the impact of the MUDFA delays were not agreed. The basis for this agreement was that all of the on-street works would be paid for on a 'demonstrable cost', 'open-book' basis (the 'On Street Supplemental Agreement' or 'OSSA'). Our final proposal was sent to tie on 19 February 2010 [25.1.201/KDR/4740].

17.3 The On Street works could have proceeded under this arrangement in early 2010. However, after six months of negotiations, and after receiving our final proposal on 19 February 2010, tie responded by way of letter dated 26 February [INF CORR 4262/RJ] referring to 'our OSSA' proposal (when in fact it had been a joint initiative) and

declaring that the OSSA would have been a breach of its obligations under EU procurement legislation. Discussions on such a proposal were therefore abandoned at the end of February 2010. It was frustrating that we had put so much effort into this for tie subsequently to cut the proposal dead, on the basis of EU legislation which, if correct, was something that they should have been aware of six months earlier.

17.4 **Project Carlisle**: In May 2010, the parties entered into discussions to reach an agreement whereby the scope of the works would be reduced, a new programme agreed, risk re-allocated in the Contract and a new price agreed. This followed on from discussions which had taken place between Tony Rush, tie's consultant, and Siemens' Michael Flynn. The discussion took place in Carlisle, hence the name of the initiative. Infraco produced two proposals on this basis ("Project Carlisle 1" and "Project Carlisle 2") which were followed by detailed discussions on how the Project might be completed. The proposals were based on delivering a reduced scope for the funding which was available to tie, and seeking to simplify the contractual procedures which had been at the heart of many disputes between the parties.

17.5 For BCUK, we brought in Mr Ed Kitzman to lead the discussions with tie on our behalf. He mainly dealt with Tony Rush and his colleague, Jim Molyneux (they were both from the Gordon Harris Partnership). Our original proposal was submitted on 29 July 2010. tie's request had been for us to propose a Guaranteed Maximum Price ('GMP') based on a reduced scope and an accelerated programme. Our proposal envisaged that the tram line would run from Edinburgh Airport to the East end of Princes Street. At this time, tie was discussing bringing in a replacement contractor for civil works east of Princes Street. We proposed an amended change mechanism whereby work in respect of a change could progress even where it was not agreed. However, there were still many uncertainties and although tie wanted a fully fixed and final GMP, there still remained risks which we could not accept. We therefore proposed retaining certain Pricing Assumptions: the key ones being in relation to the discovery and replacement of utilities, and ground conditions. However, the majority of the other pricing assumptions would go, including those that related to design change. Our

accelerated programme envisaged completion of construction and commissioning in August 2012 (Section C Completion).

17.6 tie responded by way of a letter on 24 August 2010 which seemed to take us backward rather than forward: this letter proposed an alternative GMP proposal but the proposed GMP was entirely unrealistic and all Pricing Assumptions were removed. Rather than looking at an achievable programme, tie went back to asserting that Infraco had not proved an extension of time but that tie would allow the time already awarded by Robert Howie QC and a 9 month extension of time which tie had 'offered' previously etc. tie's proposal would have meant that Infraco took all remaining risk for utilities which might still be present. Schedule Part 4 would effectively be deleted. It was an entirely unrealistic proposal and one that could not be accepted by Infraco. tie had also expressed a request for BCUK not to do any further civil engineering works, except the remedial works on Princes Street. In discussions, tie had stated that it was reflecting CEC's desire 'not to have Bilfinger Berger in Edinburgh Streets."

17.7 However, discussions continued and on 11 September 2010 we submitted Carlisle 2 ('Project Carlisle – Revised Infraco Full and Final Proposal') to tie. This letter made reference to attempts to incorporate tie's requirements but that we had not been able to incorporate all of them (for example, tie had made assurances about Third Party Approvals being resolved but they had not managed to resolve a single outstanding issue). There were therefore remaining risks which again, we could not take ownership of. I also confirmed in this letter that tie's 'Counter Proposal' would not be considered by us further as we considered it to be *'wholly and totally unrealistic both in terms of it's pricing structure and level of risk transfer back to Infraco'*. Our new proposal was to stop work at Haymarket. We took the transfer of risk in relation to matters which we considered were quantifiable, but again, could not take other risks as we still believed that these could potentially increase our costs substantially.

17.8 tie responded with a letter dated 24 September 2010. It was as if they continued to refuse to believe what we were telling them about not being prepared to give a truly Guaranteed Maximum Price, given the risk that remained. This letter in essence

repeated much of tie's previous counter-proposal and continued to insist that any agreement must provide price certainty for tie and its stakeholders. tie also wanted complete veto over who Infraco's Representative would be going forward, and to request that only Key Personnel as approved by them be allowed to have day-to-day responsibility for the Contract. Unhelpfully, tie also never provided a detailed breakdown which would allow us to see where their numbers came from. Their proposed GMP Price remained entirely unrealistic. I made this clear in a response to tie on 1 October 2010 when I concluded that '*Until such time that tie formally proposes increased amounts, we feel that Project Carlisle will most likely fail.*'

17.9 Following this, we received a further letter from tie on 12 October 2010 with further proposals in relation to Project Carlisle. We received this on the same day that we received yet another Remediable Termination Notice. After this, relationships deteriorated very quickly. Our letters to tie of 14 and 29 October 2010 show that we believed that there was very little point in continuing the discussions: on our analysis and based on tie's proposed GMP, tie were asking Infraco to 'donate' (that is, lose) around £45 million if we entered into the type of agreement tie was proposing. tie had also stated in conversations that '*Infraco must reduce its price by £45 million to avoid termination*'. tie's approach was entirely unacceptable and we saw no point in continuing with these discussions. My letter to tie of 29 October 2010 referred to the impasse between the Parties which I described as:

"...*Infraco will not agree to reduce its price, tie's non-payment of Preliminaries to which Infraco is entitled, tie's non payment of £3Mio for the demonstrable costs on Princes Street to which Infraco is entitled, tie's non payment of other parts of agreed changes or Clause 80.15 instructed works to which Infraco is entitled, tie's constant threat to Infraco of termination and tie's general failure to act in a fair and reasonable manner in administering the Contract. Clearly tie has difficulty accepting the entitlements arising for Infraco therefrom.*

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Each month tie continues to prevaricate and to not accept our Project Carlisle Proposal, the cost of the Project increases, making the gap between available funding and the cost to complete even greater…."

17.10 The Remediable Termination Notices referred to are dealt with in the following part of my Statement. Reference to tie's failure to pay our Preliminaries was another 'tactic' devised by tie in roughly March 2010. We subsequently took this matter to adjudication (and won) and the background is explained in Appendix 1 to this Witness Statement.

17.11 Perhaps not surprisingly, discussions on Project Carlisle came to an end at about this time. However, when the decision to proceed to mediation was announced, we further developed the Project Carlisle proposal. Internally we referred to this as Project Carlisle 3. It was submitted to tie on 24 February 2011, which was shortly before the mediation, and had by this point been christened 'Project Phoenix' by Richard Walker.

17.12 **Project Phoenix**: As noted, this was a continuation and amendment of the previous Project Carlisle Proposals. Infraco proposed amending the Infraco Contract on the basis of a truncated Project scope that could fit within a budget that was available to tie, finding a sustainable solution to the matters which divided the parties, and proceeding on a new agreed basis. The key advantages of Project Phoenix which were outlined to tie included not wasting CEC's £400m invested to date; providing greater price/time certainty to CEC, providing revenue earning service to CEC and avoiding a costly and very protracted public dispute.

18. REMEDIABLE TERMINATION NOTICES AND UNDERPERFORMING WARNING NOTICES

18.1 On 9 August 2010, we received the first 3 (of 10 Remediable Termination Notices) and the first of 3 Underperforming Warning Notices from tie. The letters continued up until late October 2010. This was happening at the same time as we were trying to negotiate a solution with tie through the Project Carlisle I and II proposals. It was also happening at the same time as the flood of correspondence, audits and ongoing adjudications occurred. I believed then, and still do, that tie was trying to exert as much pressure on Infraco as they possibly could, to force us to agree to a compromise arrangement with them.

18.2 The remediable termination notices covered the following issues:

18.2.1 2 letters dated 9 August 2010: Both dealing with defects on Princes Street;

18.2.2 Letter dated 9 August 2010: Clause 10.4 and 10.16 - Failure to Provide Extranet and Information in respect of Infraco Claims;

18.2.3 Letter dated 16 August 2010 – Infraco Default (a) : Clause 60 (Programming issues);

18.2.4 Letter dated 1 September 2010 – Bilfinger Berger/ SDS Provider Minute of Agreement

18.2.5 Letter dated 8 September 2010 – Design: Trackworks

18.2.6 Letter dated 21 September 2010 – Failure to Progress Demolition Works at Plots 97 and 102 Russell Road

18.2.7 Letter dated 29 September 2010 – Clause 80 – tie Change

18.2.8 Letter dated 30 September 2010 – Breaches Evincing Course of Conduct

18.2.9 Letter dated 12 October 2010 - Failure to Manage Design at Gogarburn Retaining Wall W14C and W14D.

18.3 The Underperformance Warning Notices we received were as follows:

18.3.1 Letter dated 9 August 2010: Defects on Princes Street;

18.3.2 Letter dated 7 September 2010: Clause 60 (Programme)

18.3.3 Letter dated 12 October 2010: Trackworks

18.4 It is worthwhile explaining the contractual context for these letters. Clause 90 of the Infraco Contract gave tie a right to terminate the Contract for an Infraco Default. The Infraco Defaults were as defined in Schedule Part 1. All of the Remediable Termination Notices we received were in relation to Infraco Default (a) which is defined as:

"a breach by the Infraco of any of its obligations under this Agreement which materially and adversely affects the carrying out and/or completion of the Infraco Works"

18.5 Having served the Remediable Termination Notice, Infraco had 30 days (clause 90.2) to submit a comprehensive rectification plan setting out how it intended to rectify the Infraco Default. Once that rectification plan had been submitted, tie had 10 days to indicate, at its absolute discretion, whether it accepted the rectification plan or not. If it did not accept the rectification plan, then after giving a further 5 days notice, tie could terminate the Infraco Contract.

18.6 Under Clause 56.7.1 of the Contract, tie was entitled to issue an Underperformance Warning Notice to Infraco if *"at any time the Infraco has committed any material breach of its obligations under this Agreement."* After receiving an Underperformance Warning Notice, Infraco had 10 days in which to submit a plan on how it intended to deal with the issues raised in the Notice. Our view was that these Underperformance Warning Notices were really envisaged to be used during the Maintenance Services, not the main construction period. There were rules about how many

Underperformance Warning Notices could be served in a particular period, and if a threshold was reached, tie was entitled to increase its monitoring of the Project at Infraco's expense. If four Underperformance Warning Notices were issued within any 12 month period, this gave rise to another Infraco Default (item (g) under this definition in Schedule Part 1) and tie could then serve a Remediable Termination Notice on this basis as well.

18.7 The first Remediable Termination Notices and the Underperformance Warning Notice received on 9 August 2010, all related to defects on Princes Street. We treated the receipt of these notices very seriously – the consequences of a contract termination could have been extremely expensive for Infraco given that, if it were right in its decision to terminate, tie would have ultimately been entitled to bring in another contractor to complete the Project and Infraco would have been liable for all the additional costs incurred in having to do so, as well as being required to pay the difference between what tie would have to pay to that new Contractor, over and above what it would have been obliged to pay Infraco. It could have been very costly indeed, but either way, would have lead to a huge and complicated dispute. We did not accept the basis for any of the Remediable Termination Notices served on us and we would have disputed tie's entitlement to terminate had it subsequently gone on to do so.

18.8 On 17 September 2010 (letter reference 25.1.201/KDR/6729), we responded to the first of the Remediable Termination Notices. This response was drafted in conjunction with our internal team and our lawyers. In fact, we established a group to keep track of all of the Notices we received and to make sure that we took a consistent approach in these responses. This group also looked at the consequences of immediate steps we would need to take to protect our position in the event of a termination. It was a matter which senior management in Wiesbaden were heavily involved in. Termination of such a large and important contract would have been a major issue for BCUK and therefore the line we took required Board involvement and approval.

18.9 In the letter of 17 September 2010, we refuted that there had been a breach of contract in relation to the defects on Princes Street (which we considered at that time,

were due to the manner in which the works were carried out and the road being opened prematurely to traffic). We also made the point that although it was denied that there was a breach, it did *not 'materially and adversely affect the carrying out and completion of the Infraco Works'*. This was on the basis that the timetable that we proposed in the Rectification Plan also submitted at this time (without prejudice to our position that there was no breach), showed that rectification of the Princes Street works would not affect the carrying out and completion of the Works as a whole. We disputed the validity of the two Remediable Termination Notices which related to Princes Street and we made clear that we did not consider that tie had any grounds to terminate on the basis of these Notices. However, and as noted, we did submit a Rectification Plan on the basis that it was without prejudice to our position that the Notices were not valid. My letter of 17 September 2010 also contained the following statement:

"As at the date of writing you have served Remediable Termination Notices in respect of another 4 matters. None of these matters have been the subject of referrals to dispute resolution. It appears to us that tie has abandoned the contractual mechanism for resolution of disputes. This may be because every major issue of principle has been decided against tie in adjudication. However that is no justification for now abusing the termination provisions of the contract. It is clear that tie is now pursuing a policy of serving a Remediable Termination Notice in respect of each and every grievance it may have, regardless of the significance of each grievance and its implications for the Infraco Works. Whilst we will respond to each Remediable Termination Notice in turn, we object to tie's adoption of this policy"

18.10 The letter also concluded:

"In conclusion, such matters as require attention in Princes Street are being attended to. In no way do these merit the instigation of a process to terminate the Infraco Contract. Such a course of action is wholly disproportionate to the matters in question. We assume that the Notices have been served to advance a tactical position on tie's part, rather than any genuine belief that these matters merit the termination of the

Infraco Contract. This is entirely contrary to the parties' obligations at clause 6.1 of the Infraco Contract."

18.11 Some of the Remediable Termination Notices were for trivial matters, others related to matters which were at the very heart of the disputes between the Parties. For example, the other Remediable Termination Notice of 9 August 2010 related to Infraco's alleged failure to keep documents in an orderly fashion and to allow tie access to those documents; and to set up an Extranet. This seems an entirely trivial reason to seek to terminate the contract. The Remediable Termination Notice of 16 August 2010, dealt with allegations that Infraco had failed to update the Programme and had failed to take all measures to mitigate the effects of any delay. I have already described above, the extensive process we had gone through with tie to try and get agreement on a contract programme which would actually reflect the delay being experienced. It was through no fault on the part of Infraco that we had not managed to achieve this - rather it was tie's refusal to accept the extent of the delay being experienced. By this point we were recording progress against Programme (Revision 3A) as being the most realistic programme against which to record progress. tie had refused to accept that programme for reasons we did not agree with. In addition, by this time, we had had Robert Howie's decision in the MUDFA 1 adjudication which was very clear on what we were and were not obliged to do by mitigation measures - once again, tie seemed to be refusing to acknowledge the effect of that Decision.

18.12 Another example of a Remediable Termination Notice which reflected a dispute which went to the heart of the Infraco Contract was the Notice sent on 29 September 2010 which dealt with Clause 80 and tie Changes. tie repeated all of its arguments about Infraco allegedly submitting INTCs without detail, not submitting Estimates in time, not delivering Estimates at all, submitting incomplete Estimates and again refusing to comply with mitigation measures. We were also accused as we had been before, of over-valuing estimates. The biggest bone of contention was Infraco's refusal to carry out work before a tie Change Order had been issued. By this time we had already had a series of adjudications which dealt with Clause 80 issues, not least the decision of

Lord Dervaird on Murrayfield Underpass of 7 August 2010 which made it clear that Infraco was both required and entitled to refuse to carry out Changes where there was no tie Change Order issued. In our response of 9 November 2010, we made it clear that tie's refusal to even acknowledge that matters were Changes (let alone acknowledge the delay caused by them) had rendered the process unworkable and frustrated production of Estimates. We did not submit a rectification plan in response to this letter because we believed that we were complying with the Infraco Contract. tie were simply wrong to keep insisting on an interpretation of the Infraco Contract which had already been determined to be wrong through the decisions in several adjudications.

18.13 Perhaps the most extreme Remediable Termination Notice we received was on 30 September 2010, being the allegation of breaches *'evincing a course of conduct'*. It appeared that someone had sat with the Infraco Contract doing a page turn. Whenever an Infraco obligation was found, we were accused of being in breach of that obligation: this ranged from allegations of a lack of supervision, disregard for contractual mechanisms, an unwillingness to resolve difficulties or the Infraco's breaches, non delivery of the works (with no reference of course to the reasons why we were delayed), to disregard for the client's public accountability and best value. Attached to this letter at Appendix A, was a schedule which listed out 100 clauses of the Infraco Contract we were said to be in breach of. If the consequences of receiving a termination notice had not been so serious, this would have been laughable. The breaches we were accused of included lots of matters already the subject of other notices or already decided elsewhere. For example, paragraph 2.5.2 again repeated that we were in breach of contract for failing to *'continue with any works which are the subject of a tie Change or Notified Departure prior to the issue of a tie Change Order or the referral of the relevant estimate (if there is one) to the Dispute Resolution Procedure'*. This was just another example of a refusal to accept Lord Dervaird's decision in the Murrayfield Underpass dispute. This letter also continued to accuse us of 'delinquency' which had by this time, become tie's term of choice for describing

Infraco's 'behaviour'. Again, we did not submit a rectification plan in respect of this letter.

18.14 Where we did submit rectification plans in response to receiving these letters, they were never accepted by tie on any occasion. As this was all happening at around the time that we gave notice (on 29 September 2010) that we would be stopping all goodwill works (see below), we were fully expecting tie at any moment to terminate the Infraco Contract. We had contingency plans in place as to how we would deal with this, from the practical (including how we would extricate our documentation and belongings from the site office) to the legal and contractual (with various letters and responses prepared in draft should we receive a termination notice). Our head office in Germany was fully expecting that termination would follow as we really could see no way out of the predicament we were in. We had proposed solutions to tie (Carlisle I and II) but they seemed incapable of accepting or even discussing sensible solutions - at the route of this I believe was their fundamental inability to accept what the Infraco Contract provided for, in particular to accept the risk allocation set out in the contract and that the risks which fell with tie, were what was delaying and holding up progress (e.g. MUDFA delays, and design changes from BDDI to IFC in particular). As with all other matters at this time, a huge amount of senior management time and resources were tied up in responding to the letters and much money no doubt spent (in both tie and Infraco) on outside consultants and lawyers. All of this time, effort and money could more usefully have been engaged in delivering the Project.

18.15 Against this background where we were anticipating termination almost daily, it was a surprise when the suggestion of mediation was made in November 2010.

19. CESSATION OF GOODWILL WORKS

19.1 By late September 2010, and with no sign of any change on the part of tie to accept what the Infraco Contract said and to agree Estimates which they were currently sitting on, we reluctantly took the decision to cease all goodwill works. Our letter of 29 September 2010 set out the Infraco's position in this regard. This decision was made reluctantly and against the backdrop of all of the other correspondence and communication we were having with tie at this time, as discussed in this statement and as should be evident from the correspondence provided to the Inquiry. We had come to build a tram system for Edinburgh, not to get embroiled in disputes. However, faced with the intransigence of tie, we felt we had no other option but to minimise the risk to Infraco of proceeding with Works where tie were refusing to recognise our contractual entitlement to payment and extensions of time.

19.2 Attached to the letter was a list of the INTCs where we had been carrying out works on a good will basis and where work would now stop. This wasn't the entire site but it was a large proportion of it. This is best shown by the 2 drawings which I refer to at paragraph 11.26 above.

19.3 As a result of this decision, we had to make many of our staff redundant and terminate our subcontractors. We made about 35 out of 80 Bilfinger employees redundant and stood down 10 subcontractors with about 300 workers and employees. It was not a decision taken lightly but we felt we had no option.

20. MEDIATION IN MARCH 2011

20.1 As I've noted above, having received the Remediable Termination Notices, and having made the decision to cease all good will working, we fully expected that tie would terminate the Contract. We were therefore surprised when tie suggested mediation, albeit that I believe this may have been driven by a Council Leader's Emergency Motion dated 18 November 2010, rather than by tie themselves. By this point in time, Sue Bruce had been appointed as CEC's new Chief Executive. I first met her at the Mediation and I believe she was a key driver behind the disputes being unlocked at the mediation which took place at Mar Hall in March 2011. She was assisted by Colin Smith of Hg Consulting. We understood that Colin had worked with Sue on previous projects.

20.2 Our approach to the mediation remained solutions orientated. We had not come to get into disputes on this Project. We had come to build the Edinburgh Trams Project for the City of Edinburgh. If this couldn't be achieved, which was looking increasingly likely in the latter part of 2010, then we wanted to agree an amicable separation from tie.

20.3 We worked as an internal team (Infraco and SDS) to prepare our Mediation Statement along with our legal team. We could have made this a very accusatory document, and gone on at length about how we had 'won' at adjudication and how unreasonable tie had been. However, we decided that the document should be far more open and forward looking. Whilst we were reassured that our interpretation of the Contract was correct, as had been determined at adjudication, we recognised that neither party could continue as matters currently stood. We recognised that tie and CEC had budgetary constraints. If they could not afford to build the entire Network at this time, we came up with a proposal of what could be built for the budget that we believed was available. This was Project Phoenix which I refer to above. If tie could not agree to this or some form of amended deal, then we wished to discuss how we could best extricate ourselves from the Contract (referred to by tie as Project Separation).

20.4 In contrast to the position adopted by Infraco in its Mediation Statement, tie took the approach of submitting a document which was very contractual, very confrontational and accusatory, and which presented many contractual arguments (some with a slightly different slant) which had already been progressed in adjudication, and where on the whole and on all major issues of principle, tie had not been successful. The Mediation Statement was also accompanied by 31 exhibits which were obviously prepared by tie's lawyers, and which covered issues such as their view of how Clause 80.13 should be interpreted and so on. We then had to work with our internal team and external legal team to prepare detailed responses to each of these exhibits. Infraco was fully prepared to present the evidence to the Mediator and tie/CEC at Mediation to demonstrate the inadequacies of tie's arguments; however, as it turned out, this was not necessary.

20.5 The mediation started on Tuesday 8 March 2011. The mediation was probably attended by up to 60 people, all of whom had had to sign personal confidentiality agreements prior to even being present. The fact that the mediation was even happening had attracted a huge amount of media attention. Following on from initial opening statements by both parties, the Mediator went with tie and CEC first to discuss their position. The Mediator came back some hours later and stated that CEC were looking for a solution to progress and deliver the project. It was evident that CEC were taking the lead in the Mediation talks rather than tie. The subsequent talks were between CEC and Infraco with limited contributions from tie.

20.6 Although there was discussion around some of the issues which had divided the parties, the focus through Mediation quickly became about how to deliver the project (subject to funding), using Infraco's Project Phoenix submission as the basis for the discussions. The key issues and blockers were discussed and pathways to resolution set out. The new approach by CEC (led by Sue and Colin) was to repair relationships, build trust and work in a spirit of partnership. The challenge set at Mediation was to turn the Project around and to jointly deliver the project under a new governance structure that would be a success and could ultimately be a model for other projects.

This was the challenge communicated to me following discussions between Sue Bruce and Dr Keysberg at Mediation.

20.7 Ultimately, a way forward was found with CEC at Mediation. Heads of Term were agreed on Saturday 12 March 2011 at the end of the week long mediation (the mediation had by this time moved from Mar Hall to another hotel near by with far fewer parties involved). The Heads of Term covered the agreement reached at Mediation: we would enter into immediate further discussions with CEC to get agreement of what were to be known as the Prioritised Works. The tram line would end at St Andrews Square. The price for the Off-Street Works portion was negotiated and reflected in the Heads of Term. This price was based on the Project Phoenix drawings with some exceptions. The remaining On-Street section (Haymarket to St Andrew's Square) was to be further negotiated but was to be based on a Target Sum. Clauses 65, 80 and Schedule Part 4 would be renegotiated. tie would retain the risk associated with the removal of the utilities in the on-street section. CAF were to leave the consortium and be novated back to tie. Everything beyond the Prioritised Works was conditional on tie/ CEC securing additional funding and so there was a cut off date. If additional funding to complete the truncated scope could not be found, the Infraco Contract would automatically terminate on 1 September 2011, and Infraco would be entitled to all sums due to be determined by 1 July 2011, including sums in respect of materials etc purchased for the section of the line which was not now going to be build (St Andrew's Square to Newhaven). There was to be a concerted effort involving CEC to clear all outstanding technical and planning approvals required, and for all other barriers to progression and completion of the design issues, to be removed. The design for the full line (to Newhaven) would be completed, albeit the St Andrew's Square to Newhaven section would not be built. Clause 13.1 of the Heads of Term provided:

"There will be a cultural shift in the behaviour of all parties including interaction, co-location and empowerment."

20.8 This change in attitude and behaviour was crucial to how matters then progressed. Infraco was very keen to see a change of the tie personnel and in fact, tie were then phased out with CEC taking over the running of the remainder of the Project.

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21. PROGRESS FOLLOWING MEDIATION

21.1 Period March 2011 to September 2011

21.1.1 Immediately following mediation, we then got into negotiations on Minute of Variation No. 4 (MoV 4). This was finalised by 20 May 2011. MoV4 dealt with the Prioritised Works which we were to start immediately, subject to certain payments being made and approvals issued etc, which were required to allow the Prioritised Works to progress. MoV4 essentially fleshed out the deal reached as reflected in the Heads of Term agreed at mediation. A revised programme for the Prioritised Works was agreed. MoV 4 envisaged the need to enter into MoV5 which would be the full amendment to the Infraco Contract which was required. Timescales were laid down for when that should happen by. The cut off points if funding could/ could not be found by tie/ CEC were also outlined. MoV 4 also provided that as long as MoV5 was entered into, tie would not terminate the Infraco Contract on the basis of any of the Remediable Termination Notices or Underperforming Warning Notices, and also that Infraco would not pursue any claims under the Infraco Contract (which related to events occurring before the mediation). All existing disputes were to be frozen until 2 July 2011, by which time it was hoped that MoV 5 would be entered into at which point all claims would be finally settled. A new Governance Structure was attached to MoV4.

21.2 Settlement Agreement (MoV 5) and Schedule Part 45

21.2.1 What was intended to be known as Minute of Variation 5, was effectively the Settlement Agreement which finalised the agreement reached at mediation in the Heads of Terms and as further detailed in MoV 4. At this point, funding was in place for the remaining construction work to York Place. This Settlement Agreement also introduced the full contract amendment which was necessary to reflect the agreements reached. The timetable for it slipped slightly but it was eventually executed on 15 September 2011.

21.2.2 The key points to note about the Settlement Agreement are as follows:

(a) The Infraco Contract was 'unpicked' to remove CAF as a party to the Infraco consortium. The Tram Supply and Maintenance Agreements were effectively novated back to CEC as Employer, with various indemnities and waivers of claims which could have arisen being dealt with. The Agreement held that CAF was to have no further liability under the Infraco Contract, and tie and CEC waived any claims against CAF accordingly.

(b) The Tram Supply and Tram Maintenance Agreements required to be amended to deal with the fact that CAF would now be carrying out its obligations under these Contracts, directly for CEC.

(c) Clause 3 of the Settlement Agreement dealt with the fact that it was entered into by all the parties to it in full and final settlement of *"all Disputes claims and entitlements, whether past, present or future, of any kind whatsoever and howsoever arising...."* with a few exceptions (including in relation to disputes in relation to the Prioritised Works which had been carried out under MoV 4, third party claims, claims by tie in respect of systems integration and claims in relation to the underlying construction of the Project (i.e. latent defects etc)). This meant that by signing up to the Settlement Agreement, all of the adjudication decisions previously issued became finalised. It was not open to either Infraco or tie to revisit or challenge those Decisions by taking the underlying disputes to Court.

(d) Schedule A to the Settlement Agreement, dealt with all of the amendments required to individual Parts and Schedules to the Infraco Contract, to reflect the renegotiated deal. It was a major

task to reach agreement on all of this and I deal here with some of the major changes:

(e) Schedule Part 2: the Employer's Requirements were amended to deal with the truncated scope of what would now be delivered by Infraco.

(f) Schedule Part 4: this now contained an Off Street Works Price which was genuinely a fixed price (of circa £362.5 million), and the On-Street Works Price (circa 47 million) which was dealt with by a new Schedule to the Contract – Schedule 45 (On Street Works). A Schedule of Rates was inserted for arriving at the value of tie Changes (other than those that related to the On-Street Works), and a process was detailed for agreeing the value of those Changes.

(g) Schedule Part 45: this was the mechanism for dealing with the Pricing for the On-Street Works Price. This was where some of the terminology and concepts which had previously been in the unamended Schedule Part 4, could still be found. This was to deal with remaining uncertainties in respect of the On-Street Works where tie retained the risk, i.e. the fact that it was known that utilities remained to be diverted and a number of other matters required to be finalised such as third party approvals and outstanding consents etc. This meant that Clause 6 of Schedule Part 45 still had the concept of Pricing Assumptions but there were now far fewer of them. Although clause 80 remained in the main Infraco Contract, all changes to the price and programme for the On-Street Works were only to be dealt with through the Schedule Part 45 mechanism, which effectively meant that Clause 80 was no longer relevant for changes to the On-Street Works. The changes

were now known as Pricing Assumption Variations and not Notified Departures.

(h) The other very important change introduced by Schedule Part 45 was that the prohibition on proceeding with On-Street Works before the value of the Change was agreed, was removed. The concept of an On-Street Works Trigger Date was introduced. This meant that if changes occurred as a result of the Pricing Assumptions (i.e. the facts and circumstances differed from the remaining Pricing Assumptions), and Infraco applied for time and money, which was then not accepted by tie/CEC so that the gulf between what was applied for and what was certified rose to more than 21 days in time, or £750,000, then the Trigger Date occurred. What that meant was that the Joint Project Forum was to meet within 4 weeks of the Trigger Date to discuss the claim. If those differences rose to more than £1.5 million outstanding, then by clause 8.1, Infraco could suspend the On-Street Works and would only be obliged to recommence once the difference got back to £750,000 or below.

(i) Schedule Part 45 also introduced a detailed Variation Mechanism and a Schedule of Rates and Prices for calculating what was due in respect of Pricing Assumptions Variations. It was a far more workable mechanism that the previous Schedule Part 4 and Clause 80 mechanism which had been at the centre of so many of our disputes with tie.

21.2.3 There were many other parts of the Infraco Contract which required to be amended to reflect the agreement reached. Some other issues which relate to management and the clearing out of remaining issues are worth noting as follows:

(a) Following on from Mediation, a new Governance Structure (agreed at Mediation) was put in place. The new Governance Structure and changes from the pre Mediation situation are briefly outlined below.

(b) The project would be led by CEC and directly overseen by the Council CEO. tie would in effect take a step back prior to being phased out. There were clear lines of communication set up between the parties with a commitment at the highest levels to work together in an open manner and spirit of partnership. It was agreed that an Independent Certifier (Colin Smith) would be appointed and would be charged with making determinations on issues that could not be resolved swiftly by the parties.

(c) A series of Control Meetings chaired by the Independent Certifier were set up for each of the key work streams (i.e. Utilities, Design & Consents, Construction, Commercial, Princes Street etc.). The Control meetings encouraged and allowed open and frank discussions on any and all issues. The meetings were held in "the room without corners" as phrased by the Independent Certifier. The expectation was that any issues were to be aired in this forum rather than through formal correspondence. The aim was two-fold: to reduce the amount of project correspondence and to allow for issues to be raised, discussed and resolved face to face. The Control Meetings were attended by the key Project representatives of each party.

(d) Key stakeholders (e.g. Network Rail, Scottish Water etc.) were also invited to all or parts of the relevant Control meeting. This was a positive move to create a spirit of ownership of the project by third parties and for them to understand the challenges faced by or from the perspective of the tram project team as well as outline the issues from their perspective. This greatly assisted in unlocking a

number of key issues and encouraged open communication between all the parties.

(e) Any issues that could not be resolved in a timely manner through the Control meeting process were then escalated. The escalation process, whilst non-contractual, was agreed to by the parties to ensure swift and cost-effective resolution of issues. For any issues that could not be resolved through the Control meeting, briefing papers were prepared by each party and issued to the Independent Certifier. The Independent Certifier would then make his decision promptly thereafter. Should the decision of the Independent Certifier not be accepted, the issue could be escalated to the Joint Project Forum. The Joint Project Forum was chaired by the CEC CEO and attended by the senior representatives of each party including Transport Scotland. Whilst items and updates were reported to the Joint Project Forum, all issues were resolved by the Independent Certifier and no issues were taken to the Joint Project Forum for a decision. I recall that there were only a handful of issues that necessitated briefing papers being prepared – the vast majority of issues were resolved through the Control meetings.

(f) The formal contract dispute mechanism remained in place and available for any party to use; however, this was not required post Mediation.

21.2.4 In addition, a number of initiatives were set up immediately following Mediation. This included the following:

(a) **Prioritised Works**: A number of Prioritised Work areas were identified to be started as soon as possible after Mediation. These included the Depot and mini test track and Haymarket Yards. The

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intent was to make a start on key areas (i.e. Depot) as well as demonstrating that the parties could work together and in turn support the case for the additional funding that was required to deliver the truncated line as far as St Andrew Square. The Prioritised Works were completed on or ahead of programme and within the allowable budget.

(b) **Co-location of CEC and Project Stakeholders**: The CEC Project Management team as well as Planning and Technical Officers re-located to the Consortium Project Office. Additional CEC resources were added to the Project allow for the outstanding approvals to be progressed as quickly as possible.

(c) New office space was added to accommodate CEC as well as the Network Rail team who were brought in to allow for open and immediate dialogue to resolve issues quicker and face to face without unnecessary correspondence or through intermediary parties. The same offer was made to Scottish Water; however, they declined to take office space.

(d) The CEC Approval bodies and Infraco worked seven days a week during April 2011 to progress and resolve the vast majority of design approval issues. tie were excluded from these meetings and the CEC and Infraco teams were charged to resolve the issues which they did successfully. This was clear evidence of the new spirit of working and partnership. There was a clear "re-energisation" of the project at this time.

(e) **Post Mediation Changes (PMCs):** A new approach was taken forward to changes post Mediation. Changes were identified, discussed and agreed in a timely manner through the Control meeting or separate ad-hoc meetings were necessary. Where a

change was agreed, the correct contractual process was followed to allow the works to proceed and mitigate any impact to the programme.

(f) As an example, "time sheet" PMCs were taken forward to allow some design changes (i.e. due to the considerable utility conflict issues still to be resolved) to be progressed. Coming out of Mediation, a number of design changes were identified that could not at that time be fully quantified. In order to avoid any delay to the completion of the design, Clause 80.15 Change Orders were issued by CEC with a not to exceed value to allow the design works to progress. The costs were then tracked through submission of weekly time sheets and costs agreed and tracked on a weekly basis.

(g) The aim of Infraco at Mediation was for tie to be removed from the Project to ensure a successful delivery. This was due to the fact that Infraco and SDS did not have any belief that the project could be delivered with tie as Project Manager. Between March 2011 and September 2011, tie were phased out and Turner and Townsend were brought in to assist CEC in managing and delivering the project.

(h) **Utilities** – there were still substantial utilities diversion works to be carried out (e.g. refer Utilities Control meeting dated 30 June 2011 – tie stated that 600 – 700 potential conflicts identified with further information to be checked). CEC led the new approach which was all parties working together to identify clashes and determine the most appropriate solution (i.e. diversion of the utility, dispensation from the statutory utility authority or amendment of the infrastructure design). The period following Mediation involved desktop review of the utilities issues and trial holes to inform the

next steps. It was a surprise to CEC at this time the extent of the utility works still to be carried out.

(i) **Value Engineering**: A thorough review of the project was undertaken and value engineering opportunities identified and taken forwards by the Project. The focus post mediation was to deliver the tram project. The value engineering opportunities taken forward included removal of the Crew Facility at Haymarket Viaduct, removal of the Canopy and Kiosk at Edinburgh Airport, deletion of significant quantities of setts and deletion of the requirement for full depth road construction.

21.3 **Period September 2011 to Project Completion**

21.3.1 Following the signing of the Settlement Agreement on 15 September 2011, with the project funding secure the project moved forwards under the same Governance Structure.

21.3.2 Whilst there were still a number of issues to resolve (as would be expected in a project of this size, scale and complexity), the new levels of trust built up with CEC and the new project management team as a result of the governance structure put in place by CEC, and expertly led by Colin Smith, overseen by the Council CEO meant that these issues were resolved in a timely manner and without any impact to the Programme. As the issues reduced, the number and frequency of Control meetings reduced.

21.3.3 **Approach to Utility Conflicts and Diversion works:** The strategy for the utility diversion works was also changed moving forwards. The intent was the new Utilities Contractor would go in just ahead of Infraco to excavate down to formation level and resolve the utility conflicts just ahead of Infraco coming on site. This was a more cost effective way to deliver the works.

21.3.4 The CEC leadership team following Mediation were more open and honest about the scope of incomplete utility works. This allowed for a more creative and dynamic environment where ideas and Value Engineering for both parties (CEC and Infraco) could be expanded. The more open 'partnering' approach led to better planning of resources and ultimately less abortive works.

21.3.5 The CEC/Turner and Townsend team, from my perspective, had a better relationship with the Utility providers resulting in faster turnaround on any issues. The process of CEC taking possession of work sites prior to Infraco showed continuity of work streams to all stakeholders (as well as cost savings for CEC as not all works required reinstatement). Furthermore, CEC were more open and realistic when programming the utility works and upfront on the issues and constraints.

21.3.6 **Approach to Traffic Management:** The approach to Traffic Management was much more robust under CEC compared with tie. Following Mediation and the signing of the Settlement Agreement a fresh review of Traffic Management schemes was carried out with the emphasis now on 'getting the job done'. With tie, the priority was very much on minimising disruption. The approach from tie failed and in the majority of cases resulted in increased disruption. Post Settlement Agreement we were allowed to explore and demonstrate that larger work sites were a positive for the Project overall, and these were better promoted by CEC. This also extended to all aspects including City centre embargos and extended site hours with CEC Utilities Contractor (McNicholas) taking site possessions at weekends and nights to reduce the impact to the Infraco Programme.

21.3.7 Under tie, a number of traffic management proposals put forward by BCUK were rejected due to a perceived disruption factor to local stakeholders. The proposals taken forward through tie resulted in longer protracted works that impacted on the local stakeholders for longer. The approach by CEC post

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mediation was very much short term pain for long term gain and delivering a more cost effective works plan that ultimately reduced programme durations. A number of the traffic management proposals developed by BCUK for tie, whilst rejected by tie, were taken forward by CEC post Settlement Agreement.

21.3.8 CEC utilised Clause 80.15 effectively to ensure changes were progressed ahead of agreement of an estimate. This ensured that there was no impact to the Programme and the works progressed. Valuation meetings were held each period and the Independent Certifier ensured that no issues dragged on beyond two periods unless by prior agreement of both parties (perhaps where the full extent of the issue could not be determined within that timeframe). There were no disputes or estimates not agreed within an acceptable timeframe.

21.3.9 **Internal Infraco relations and Infraco – SDS relations**: During this period, whilst there were issues to be resolved between the Infraco parties as would be expected in a project of this size, scale and complexity, the relationships between the parties remained strong and the issues were worked through and resolved in a professional manner and without impact to the Programme. There were no disputes between the Infraco parties.

21.3.10 The Project was completed ahead of the revised Programme and within the revised Budget with no disputes between the parties.

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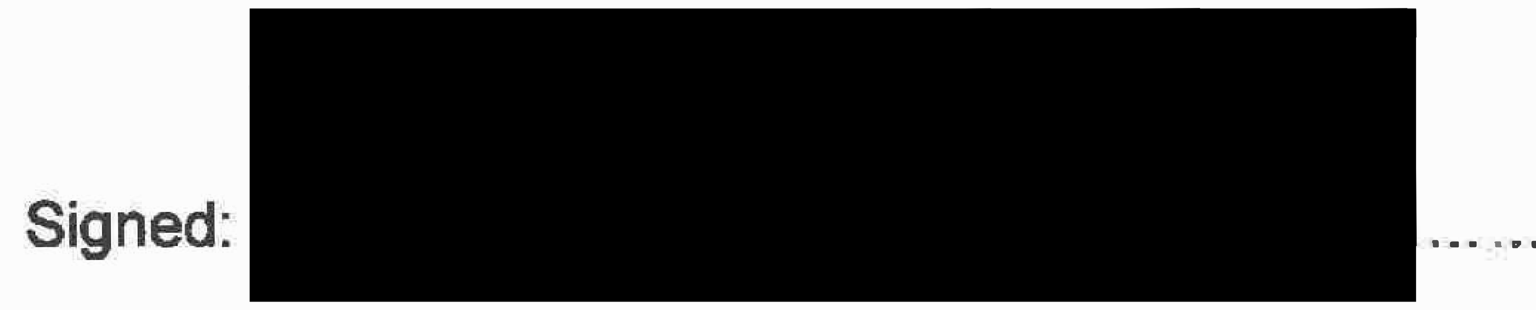
22. **SUMMARY**

22.1 It is difficult to adequately summarise the above but it still amazes me that tie should have adopted such a fundamentally different view to the contract risk distribution since a plain reading of the contract clearly placed the risk of large types of changes with tie. It further amazes me that despite clear judgments in the adjudications from eminent lawyers that tie continued to reject these clearly established principles. I have no rational explanation for this behaviour by tie.

I believe that the facts stated in this witness statement are true.

Signed:  ......

Martin Heinz Foerder

Date: 10th December 2015

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