

Neutral Citation Number: 2016 EWHC 2856 (TCC)

Case No: 3MA500110

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
MANCHESTER DISTRICT REGISTRY
TECHONOLOGY AND CONSTRUCTION COURT

Manchester Civil Justice Centre,
1 Bridge Street West, Manchester M60 9DJ
Date: 11 November 2016

Before:

HIS HONOUR JUDGE STEPHEN DAVIES
SITTING AS A JUDGE OF THE HIGH COURT

Between :

AMEY LG LIMITED

Claimant

- and -

CUMBRIA COUNTY COUNCIL

Defendant

David Streatfeild-James QC, Andrew Singer & Jonathan Ward (instructed by **Pinsent Masons LLP, Solicitors, Leeds**) for the **Claimant**

Martin Bowdery, QC, Paul Stafford, Frances Pigott, Lauren Adams (instructed by **REN Legal, Solicitors, London EC2**) for the **Defendant**

Hearing dates: 8, 9, 10, 15, 16, 17, 18, 22, 23, 24, 25, 29 February; 1, 2, 3, 7, 8, 9, 10, 14, 15, 16, 17 March;
4, 5, 6, 7, 13, 14, 18, 19, 20, 21 April; 3, 4, 5, 9, 11, 12, 25, 26, 27 May 2016;
27, 28 October; 10 November 2016
(draft judgments circulated 6 September 2016 and 3 November 2016)

JUDGMENT APPROVED

His Honour Judge Stephen Davies

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1. **Introduction and preliminary matters**

1.1 I will begin this judgment by way of a general introduction, and then proceed to address some preliminary matters, including the approach I have adopted in deciding some of the claims in this case, a consideration of the reliance placed by Cumbria on extrapolation, and an overview of the technical issues involved.

(a) **General introduction**

1.2 This is a claim and counterclaim arising out of a contract under which the claimant, Amey, agreed to provide highways maintenance and associated services for the defendant, Cumbria, for a term of 7 years starting 1 April 2005. The services had previously been provided by Cumbria's direct labour organisation (DLO), which was effectively taken over by Amey. Over the duration of the contract around 36,000 individual works instructions were issued by Cumbria, with an approximate processed value of £250 million. This included the laying of around 2,200 surfacing beds, with a combined area of around 4.2 million m² and a total value of around £41 million, and the issuing of around 1,700 separate patching instructions, with a combined area of around 745,000 m².

1.3 Before outsourcing its DLO Cumbria had already outsourced its highways department, responsible for overseeing the highways maintenance services, to the professional services company, Capita, who was to act as overseeing organisation under the contract. The intention was that all 3 organisations would work in partnership for the benefit of Cumbria's road users.

1.4 Although there were, as might be expected, some difficulties along the way, the overall impression is one of reasonable satisfaction on all sides for the first few years of the contract. However in 2008 Cumbria decided to conduct a root and branch review of its highways maintenance services prompted, it appears, by a perception of widespread dissatisfaction with the state of Cumbria's roads, coupled with budgetary pressure to make financial savings. The review process involved the use of external management consultants and had the enthusiastic support of new senior management within Cumbria's highways section. It culminated in a decision to bring Capita's services back in-house once its contract expired at the end of January 2011, and a decision to do the same with Amey's services once its contract expired at the end of March 2012. This decision was taken despite Cumbria being aware that Capita and Amey were very keen to obtain extensions to, or renewals of, their contracts and, in Amey's case, was prepared to offer significant price reductions to secure a contract extension. Cumbria also decided, at around the same, time to trial and then to roll out a new model for undertaking basic road maintenance and repairs, known originally as Customer Care and subsequently as Better Highways. The decision was taken not to await the expiry of the Capita contract and the Amey contract before introducing this new model.

- 1.5 From 2009 onwards the relationship between Amey and Cumbria had steadily deteriorated, so that by the time the contract expired a number of claims and counterclaims had already been intimated, with Cumbria making substantial deductions from Amey's final monthly payment applications, and with both parties actively preparing to pursue claims against the other under the final account process. Neither the final account process nor the subsequent pre-action protocol process resulted in an overall settlement of the claims and counterclaims, with the result that Amey commenced proceedings in the Manchester Technology and Construction Court in December 2013. The claim as pleaded amounted to over £30 million together with interest. The counterclaim, even after taking into account Cumbria's valuation of Amey's claims, was around £20 million. The parties have endeavoured to settle their disputes throughout the course of the proceedings, including undertaking a week-long mediation in May 2014, and have achieved some success, but the majority of the claims and counterclaims remain in dispute.
- 1.6 At the first substantive case management conference the case was listed for a 16-week trial commencing early 2016 and, despite a number of difficulties and disputes along the way the parties have worked hard and co-operated to ensure that the trial date was maintained. The parties sensibly agreed that the trial should be a paperless trial, in circumstances where otherwise the parties and the court would have been overwhelmed by the sheer volume of documentation in paper and electronic format generated during the course of the contract and the dispute.
- 1.7 Although there is considerable strength of feeling within both parties in relation to what each considers to be the discreditable conduct of the others in certain regards, and although the case has been vigorously contested on both sides, I should record my gratitude at the outset to those advising and representing the parties for co-operating with a view to ensuring that, despite the challenges involved, the litigation process ran reasonably smoothly and the trial was able to be completed within the time allocated.
- 1.8 The trial proper began on 8 February 2016 and took 42 days of court time, the first 3 being taken up with oral opening submissions and contested applications, the next 24 with factual evidence, followed by a short break and then 12 days of expert evidence, with a further short break for written closing submissions and concluding with 3 days of oral closing submissions, ending on 27 May 2016. I also had the benefit in the first week of a site visit day, where I was taken to a number of different roads within Cumbria and shown various features of relevance to the issues in this case.
- 1.9 It was recognised by me and by the parties that my judgment produced after this stage could not conclusively determine all of the issues, particularly the final ascertainment of some of the figures, and that certain further working out by the parties, assisted by their quantum experts, would be necessary once I had determined the substantive issues in dispute. Following circulation of this judgment in draft on 6 September 2016 it was agreed that the parties should have time to consider it and to seek to agree or address the outstanding matters, and a further 2 day hearing was scheduled for 27 – 28 October 2016 to determine any outstanding matters which could not be agreed. Prior to that hearing the quantum experts held further discussions

and produced a further joint statement. The parties also produced a very helpful combined list of typographical errors. Cumbria also produced a document running to 36 pages, described as a “list of suggested amendments arising out of obvious errors”. Amey objected to my considering these submissions as amounting, in effect, to an attempt to re-argue certain elements of the case. Upon reading the list of suggested amendments it became clear that it was at least in some respects difficult to disentangle the arguments in relation to the asserted obvious errors from the arguments in relation to the outstanding matters, and in the end it was agreed that all such matters should be addressed to the extent appropriate at the October hearing, so that the draft judgment could be supplemented after that hearing, and then formally handed down and all consequential matters addressed at a further hearing scheduled for 10 November 2016. All remaining items were concluded on 10 November 2016, so that this judgment as handed down the following day addresses all outstanding matters, including the further limited final arithmetical working out required after the promulgation of the supplemented judgment following the October hearing, which the quantum experts were able to agree on 9 November 2016.

1.10 As regards the asserted obvious errors, it became clear at the October hearing that Amey as well as Cumbria was to some extent inviting me to exercise what is commonly referred to as the Barrell jurisdiction. I have considered the written and oral submissions made by the parties and have made such changes as appear to me to be appropriate by reference to the well-established principles as to the circumstances in which a court should accede to a request to re-consider its decision as promulgated in draft. Where I have made changes of substance, or declined to do so, I have made this clear in this judgment.

(b) **The list of issues**

1.11 The parties were able to agree a list of issues, following the same order as Amey’s claims and Cumbria’s counterclaims. There is some degree of overlap between the two; for example Amey’s claim for payment for street lighting materials is met with a defence and a separate counterclaim for repayment of monies for street lighting materials allegedly previously wrongly made. The parties have not, however, rigidly followed the sub-issues within the list of issues in their opening or closing submissions, and a number have been overtaken by subsequent developments anyway, and I do not propose to do so either in this judgment.

(c) **My approach**

1.12 Some of the individual claims are complex and high value, others are less so. The principal statements of case and supporting materials are extremely extensive, extending over many lever arch files in their original paper form, the witness statements are numerous, lengthy and detailed, as are the expert reports, particularly those in relation to liability and quantum, especially when the voluminous schedules, including schedules in Excel spreadsheet form, attached both to the principal and supplemental reports and to the numerous joint statements, are taken into account.

- 1.13 Moreover, even though the evidence has extended over 36 days, it has simply not been possible for the parties to address all factual matters in dispute during in the course of cross-examination. This is not a complaint, merely a statement of fact; had the parties wanted, and the court allowed, all factual matters in dispute to be addressed in evidence it would have been impossible to do so within the time allocated for trial. That does, however, raise three significant questions as to the approach to be adopted in relation to this judgment, particularly given the need for it to be produced within a reasonable length of time.
- 1.14 The first is the extent to which I should investigate each and every issue raised in the pleadings, the witness statements and the expert evidence even where not also addressed in the opening written submissions (running to 269 and 372 pages respectively), in oral opening submissions, in the course of the oral evidence, in closing written submissions (246 and 499 pages respectively, excluding appendices), or in oral closing submissions. Before adjourning for closing written submissions to be produced I indicated to the parties that I would expect those closings to identify all of the positive findings which each party would be inviting me to make in my judgment, although not necessarily to rehearse at length all of the relevant material upon which they relied, other than by reference. I indicated that the parties could not realistically expect to limit their closing arguments to relatively high level points and then invite me to rise and re-read all of the pleadings and evidence and proceed to make findings on all issues raised in the pleadings and evidence on the basis of having to assume that save where expressly conceded or abandoned all were still in dispute and material, without the benefit of knowing at least what findings each party wanted me to make on the issues still in dispute. Both parties proceeded to make closing submissions on that basis. Accordingly, whilst I have refreshed my memory of the statements of case, the witness statements and the expert reports and have re-read the transcripts of evidence whilst preparing this judgment, and whilst I have attempted to address all matters in dispute relevant to my decision, I have proceeded on the basis that the opening and closing submissions set out the parameters of the matters still in dispute and the findings which I am invited to make, and this judgment is produced on that basis.
- 1.15 The second question is whether I should devote the same amount of time and analysis to an individual claim worth around say £50,000 as I should to an individual claim worth around say £5 million. The parties have taken the sensible approach of concentrating their attention of the larger value items and I consider that I should follow the same approach, so that I have attempted to take a proportionate approach when dealing with the smaller individual claims.
- 1.16 The third question is how I should approach the claims whose resolution depends, or may depend, on a close analysis of a large number of individual sub-claims. This particularly arises in relation to Cumbria's schedule 2, 3 and 7 counterclaims, which are claims for defective works. For example, in relation to the schedule 2 and 3 claims, known as the patching and surfacing claims respectively, there are around 1,000 individual items in issue, and it is also in relation to these claims that the thorny issue of extrapolation raises its head.
- 1.17 The majority of the patching and surfacing claims are pleaded on the basis that Cumbria has examined a sample number of patching and surfacing undertaken by Amey, discovered

various breaches of contract in relation to a number of those samples, and put forward its proposals for remedial works and costs by reference to those defective samples. Its claim is then pleaded and presented on the basis that the conclusions in relation to those defective samples can be extrapolated pro rata to the entirety of the works of similar nature undertaken by Amey over the contract period. It seeks to support that approach by expert statistical evidence. There is, not surprisingly, a significant dispute between the parties as to whether or not that is an appropriate course to take, which I shall of course need to resolve in this judgment.

- 1.18 The issue arises as to whether it is necessary for me to make individual findings on each and every disputed defective item within the sample, in circumstances where each has its own factual background and its own documentary evidence pack, and where many, although not all, are separately addressed by the liability experts in the voluminous appendices to their reports. Cumbria argues that there is no short cut, and that I will need to do so in every case. Amey acknowledges that if I accept Cumbria's case on extrapolation I will need to reach a conclusion in relation to the totality of the individual claims, pre-extrapolation, because otherwise there would be no final figure from which to extrapolate, but contends that there is no need to do so if Cumbria fails to persuade me that extrapolation is appropriate. Amey makes the point that if I had to review and decide each item, in circumstances where only a small proportion have been addressed in oral evidence, I would need to decide the remainder from scratch on the papers, which would take a very substantial amount of time and thus unnecessarily lengthening the time for production of this judgment. Cumbria submits that I need to undertake this analysis in any event, because it seeks a judgment on the individual items even if it fails to persuade me on extrapolation. For reasons which I explain in (d) below and in more detail later in this judgment I prefer Amey's arguments, and do not consider it necessary to address and resolve each and every individual item in relation to the extrapolated claims. (I should say that this argument does not apply to the schedule 7 claim, known as the uncorrected defects claim, which raises different issues which I shall address later.)
- 1.19 However it is worth observing at this point that in the course of the numerous interlocutory hearings in this case the question of trial by sample was raised, most often by me, on a number of occasions. Cumbria's position had always been that this was unnecessary, since its extrapolation approach avoided the need to examine every potential defect. That, however, ignored the sheer quantity of items which would need to be addressed pre-extrapolation. It appears that both parties, perhaps understandably, proceeded in the confident expectation that the liability (paving) experts and the quantum experts would reach substantial agreement in relation to individual items or, where not, at least identify what were the common issues, thus avoiding the need to conduct a separate mini-trial of each and every item. However, regrettably, the experts have reached very little agreement, and it has not proved possible to identify common issues which, once determined, will enable the individual items to be resolved without the need for further consideration of the individual circumstances of that item. By the time that it became apparent that this was the case, which was not until shortly before trial due to the delay in finalising the expert paving and quantum evidence, it was too late to consider some further or alternative case management approach to resolving these individual items in a proportionate manner.

1.20 In my view Cumbria, as the party advancing a case based on numerous individually modest defects, had the primary obligation to make it clear to the court at the case management hearings what the realistic trial timetable would be if there had to be a traditional trial of all such items, assuming the worst case in terms of expert agreement, and ought to have presented realistic proposals for determining those items at trial within the time allocated, whether by sampling or some other method, in the event that sufficient consensus was not reached. If Cumbria had made it clear at the case management hearings that, even though a significant part of its case stood or fell on extrapolation, nonetheless there remained significant numbers of individual items which would have to be determined one way or another regardless of extrapolation, then I have no doubt that I would have taken a more interventionist approach than I did. Specifically, had my attention been drawn to the voluminous and detailed appendices to the schedules to the counterclaim, which were not produced in hard copy at the case management hearings, that would have revealed the true scale of the challenge and the implications for the trial timetable.

1.21 Whilst I entirely accept my share of the blame for not ensuring that I was made aware of the true position at the case management hearings, nor do I acquit Amey of any responsibility, nonetheless in my view the fault lies primarily with Cumbria, as the party advancing these claims, to make the position clear to the court from the outset, so that the case could be properly case managed by reference to the worst case scenario as well as the best case scenario. What has happened here may be regarded as a triumph of hope over experience.

(d) **Extrapolation**

1.22 In short, the claim for most of the separate categories of patching and surfacing defects was pleaded on the basis that Cumbria would rely on expert evidence to establish that its findings, based on its actual inspections of sample sites in relation to each of those separate categories, could be extrapolated with a 95% confidence rate across the whole of the works undertaken by Amey falling within those categories.

1.23 This was a significant allegation, because it transformed what would otherwise have been a series of relatively modest claims to a number of very substantial claims. To take one example, visible defects in patches under 5m², pre-extrapolation the cost of remedial works to the defective proportion of the sample was said to be worth around £22,000, whereas post extrapolation the claim was said to be worth around £1.69 million (albeit then reduced to around £690,000 after giving credit for the benefit for the service life of the patches already obtained before the claim was made); see paragraph 40 of schedule 2 as amended. Cumbria has always asserted that this was the only practical way of advancing its case, given the very substantial quantities of individual patching and surfacing works undertaken by Amey over the duration of the contract, since it would have been completely impractical for it to have inspected each individual item of work undertaken and to have pleaded and proved a case in relation to each allegedly defective item separately. I make it clear that I entirely accept that Cumbria is right as to the impracticability of that course.

- 1.24 Importantly, Cumbria has always accepted, and rightly so, that the reference to a 95% confidence rate could only sensibly have been understood by those with knowledge of statistics as a contention that the sampling process which had been undertaken could be demonstrated to be a statistically genuinely random sampling process, based on what is known as probability sampling. That, in summary, is because it is well understood by statisticians that a 95% confidence rate can only be demonstrated mathematically if random probability sampling has been undertaken.
- 1.25 In the course of oral opening submissions on day 2 Mrs Pigott explained that Cumbria's statistical expert, Mr Hodgen, had accepted that the sampling process could not be shown to have been statistically random, so that the pleaded case about seeking to extrapolate with a 95% confidence rate could not be supported. However, Mr Hodgen was satisfied that the case on extrapolation could be supported on the basis that, even though it was not statistically random, it was sufficiently representative for reliance to be placed upon it from a statistical perspective, and this was how Cumbria would be advancing its case at trial.
- 1.26 I accept that it is open to Cumbria as a matter of law to seek to persuade me to accept its extrapolation case on the basis that its sample is sufficiently representative to be relied upon. I accept that there is no principle of law nor of statistical theory that a claim or a proposition can only be established by statistically random sampling. I accept that it is perfectly open to a claimant to seek to establish a claim by reference to representative sampling, although further and different considerations will apply to such a claim, with which I shall have to engage in due course.
- 1.27 However it is Amey's position that at the time the original defence and counterclaim was filed and served it was known by at least Mark Robinson, as the Cumbria representative with direct responsibility for this aspect of the case, that it would not be possible for Mr Hodgen as Cumbria's chosen expert to support the case on the pleaded basis of a 95% confidence rate, because Mr Robinson was fully aware by that time that the sampling exercise had not been undertaken on a statistically random basis. It is also Amey's position that even though this was known from the outset, and even though nothing occurred subsequently which could have changed that, other than making it even more apparent that this was the case, there was never any formal or explicit acceptance that the existing pleaded case, based on random probability sampling, could not succeed and would need to be amended, until Mrs Pigott made that clear on day 2 of the trial.
- 1.28 In the course of written closing submissions I was informed that following cross-examination of Mr Robinson Amey's solicitors had written to Cumbria's Chief Executive to give notice that Amey was "considering all options available to it including contempt proceedings against you and members of Cumbria's legal team". In oral closing submissions there was some debate about the propriety of this letter. I made it clear then, and I make it clear now, that these are not matters for me to address in this judgment; I will address such matters at the appropriate time, if any.

- 1.29 However it is both necessary and appropriate for me to make findings in this judgment as to the circumstances in which Cumbria came to plead and to continue with its 95% confidence rate case. That is because Amey invites me to conclude, based in particular on Mr Robinson's evidence, that Cumbria never had any basis for making such an allegation, and knew that to be the case, so that it was an abuse of process to do so. This is relevant because Amey contends that if I am not satisfied that Cumbria has established its new case based on representative sampling then I should not permit Cumbria to do what it seeks to do, namely as a fall-back position to persuade me to award damages for defects on a non-extrapolated basis.
- 1.30 In closing submissions reference was made to the decision of the Supreme Court in Fairclough Homes v Summers [2012] UKSC 26, which was an accident at work claim where the claimant was found to have fraudulently exaggerated the extent of his injuries. In summary, the Supreme Court held that whilst a court does have jurisdiction to strike out a claim for abuse of process, even after a trial following which the court is in a position to make a proper assessment of both liability and quantum, it should only do so in very exceptional circumstances.
- 1.31 I will set out the detail of my findings when addressing in more detail the extrapolation claim in relation to the patching and surfacing claims. As will appear, however, I do not accept the serious criticism made of Mr Robinson, namely that he was responsible for the defence and counterclaim being filed and served, verified with a statement of truth, in circumstances where he knew that it was false in that it would never be possible for Cumbria to establish its case on a 95% confidence rate. I am, nonetheless, critical of him and of Cumbria for the claim having been pleaded in this way, and having not been amended once it became absolutely clear to Cumbria and its advisers that the pleaded case based on the 95% confidence rate could not be supported. In particular, it is very unsatisfactory that when the reply to the amended defence to counterclaim was served in July 2015, at a time when it must have been apparent that Mr Hodgen could not support a case based on random sampling, there was at most a rather oblique reference to that being the case, rather than an explicit acceptance of the position. It is also surprising that there was no explicit reference to this in Cumbria's opening written submissions, even though it had been raised in terms by Amey at the pre-trial review in December 2015.
- 1.32 Nonetheless, I do not consider that these criticisms come anywhere close to justifying striking out Cumbria's fall-back claim if it was otherwise properly pleaded and advanced.
- 1.33 However, that begs the question as to whether or not Cumbria's fall-back position is indeed properly pleaded and advanced. In my view it is neither. The extrapolated claims have been pleaded solely as extrapolated claims. Cumbria has not pleaded its claims on the basis of a separate claim for damages in relation to the allegedly defective samples, either as a separate pre-extrapolation claim or as an alternative fall-back claim. Despite inviting me in closing submissions to award damages on the non-extrapolated basis if I was against Cumbria on its extrapolated claim no application to amend to advance such a claim has been made. Whilst I had made it plain at the outset of the trial that I would not be sympathetic to either party taking purely technical pleading objections and the parties have sensibly adopted that

pragmatic approach, in circumstances where the value of the claims has changed as the experts have given further consideration to the claims, that approach does not extend to allowing either party to run whatever new claim they might wish without seeking and obtaining permission to amend if there is a valid objection. Amey's objection is very far from being a purely technical objection. Cumbria has chosen to advance a very substantial series of claims which are wholly dependent on extrapolation. On the existing claim, failure on extrapolation means total failure. On the proposed fall-back claim, Cumbria would still obtain a judgment, albeit modest in comparison, in very different circumstances.

- 1.34 Whilst Cumbria might argue that it would always have been necessary to examine the merits of each individual sampled claim in any event, that would only have been true had I accepted its case on extrapolation. If Cumbria had pleaded from the outset, and made it plain to Amey and to the court from the outset, that it was seeking as an alternative a judgment on each individual sampled claim in any event, regardless of extrapolation, then I have no doubt that the court would have had to have given serious consideration as to how that could be achieved in a proportionate manner, having regard to the value of those claims in the context of the case as a whole. That approach is something which was emphasised, in a similar context, by the Court of Appeal in Sullivan v Bristol Film Studios [2012] EWCA Civ 570. Cumbria's approach has effectively deprived Amey and the court of the opportunity of addressing this issue, and of appropriate case and costs management orders being made, at the proper time. There is no justification for now allowing Cumbria to depart, on an unannounced and unsanctioned basis, from its existing pleaded case.

(e) **Overview**

- 1.34 Cumbria is one of the largest counties in England by area, geographically ranging from mountainous central Lakes District and Pennine areas to flat coastal areas; it is predominantly sparsely populated, but there are some densely populated areas. Its road system is equally variable; the majority of the road network comprises unclassified roads in rural locations, many of which have evolved over time, using progressive maintenance such as surface dressing, patching and overlaying, rather than being designed and constructed to a uniform modern standard, such as the Highways Agency design manual for roads and bridges. The maintenance of such a road network is inevitably challenging, especially in times of financial pressure.
- 1.35 The pavement of a road is a reference to the structural elements of that road. It typically comprises a sub-base, usually an unbound aggregate such as crushed rock, on top of which there is base course and/or a binder course, and finally a surface course, also known as a running or wearing course. There may also be a surface dressing on top of the surface course. If the foundation is not in a satisfactory condition, for example because it is comprised of uneven bedrock of poor quality material, it may need to have a regulating layer of crushed rock installed as a preliminary to the base or binder course. Evolved roads may simply comprise successive layers of surface course laid on top of stone pitching (stones hand placed across the road to form a tightly packed interlocking foundation, without a sub-base).

- 1.36 The function of a base course and a binder course is to provide a well-shaped surface onto which the surface course can be laid and to assist the waterproofing of the pavement structure as a whole. It typically comprises a dense asphalt concrete, the difference between the two normally being the bitumen content, which is higher in the binder course, and the size of the aggregate.
- 1.38 A surface course also typically comprises an asphalt concrete. It is referred to as close graded macadam in the contract. There are also some particular types of surface course referred to in the contract. In particular there is:
- (a) Hot Rolled Asphalt (HRA), which is aggregate surrounded by a mixture of bitumen, sand and filler, with a 30 – 35% stone content, and which has pre-coated chippings applied to the surface during installation.
 - (b) HRA 55%, which is similar to HRA, but has a 55% stone content and, hence, does not require pre-coated chippings as well.
 - (c) Thin surface course system (TSCS), which is a proprietary surfacing system.
- 1.39 Surface dressing involves a thin layer of bituminous binder being applied to the road surface, with stone chippings spread and rolled into it. This is the principal method of routine maintenance of road surfaces. Another application used in this contract is slurry seal, which is a pavement maintenance technique using a layer of emulsified bitumen, fine aggregate and mineral filler applied to the top of the pavement surface.
- 1.40 Highways works broadly fall into the following categories: emergency works; planned works, routine and reactive maintenance such as patching and surfacing; maintenance to highways electric items such as street lights and road signs; winter maintenance, such as gritting and snow clearance.
- 1.41 Surfacing involves the removal and replacement of a whole stretch of pavement, including base and/or binder layers as well as surface course layers. Patching involves more limited works, including the removal and replacement of individual areas and/or layers of pavement. It would appear that the distinction between a large patching job and a small surfacing job is a question of degree, as indeed is the distinction between a small patching job and the repair of a pothole. In this contract the highways specification appears to envisage that the minimum patch area should be 3.6m² (600mm x 600mm) and the maximum 20m²: see clause 771AR(17). However clause 772AR(1) states that “permanent repairs to potholes will normally be treated as patching and instructed under clause 771AR”. The notes to clause 771AR(17) also state that individual patches over 20m² are generally not hand laid (and thus laid by machine) and “could be considered as surfacing – depending on patch shape”. Appendix 7/71 stated that there were 5 separate types of patching, type 1 being simply sealing the service with slurry seal, type 2 being the removal and replacement of the surface course alone (with 6 separate sub-options being listed), type 3 being the removal and replacement of the surface and binder course (with 4 separate sub-options listed), type 4 being the removal and replacement of the surface course, binder course and base course (with 5 separate sub-options), and type 5 being local reconstruction, including the removal and replacement of the sub-base, with 5 separate sub-options). The contract required the application of a tack coat of

bitumen to seal the existing bituminous surface to the base surface. The contract also requires the application of edge sealant, also known as joint sealant, which is a bond coat of bitumen, to seal the existing and new vertical faces. The purpose of these seals is to make the patch and surrounding pavement a monolithic structure, preventing water penetration and improving its resistance. As well as edge sealant, Amey might be instructed to apply edge banding, also known as overbanding, which is a top coat applied to the surface of the joint.

- 1.42 It is Cumbria's pleaded case that the expected service life of a patch is at least 8 years, although Amey says that it is less than that.
- 1.43 A particular type of patching is pre-surface dressing patching, which involves undertaking patch repairs to a road, usually over the summer, followed by surface dressing over the repaired area the following summer. In such a case, of course, the patch itself is no longer visible once it has been surface dressed over, unless it subsequently fails so that, for example, a depression is visible underneath the surface dressing, or the surface dressing wears away.
- 1.44 There are also a variety of tests which can be undertaken on a course or courses within a pavement. The course may be tested by use of a nuclear density gauge (thus known as NDT testing), which is done during the process of laying the course to measure its compaction, compaction being important to ensure the structural integrity of the course and to minimise water penetration. The course or courses may also be tested by coring which, as its name suggests, involves taking a core sample which is then tested in the laboratory. Coring also allows the material to be identified and the thickness of the course layer to be measured. NDT testing is relatively straightforward and inexpensive to undertake, whereas coring normally has to be done after the course has been made, and thus involves greater cost, including the costs of any necessary traffic management as well as laboratory testing.
- 1.45 There are also a variety of tests which can be undertaken to the surface of a pavement. The surface macrotexture, also known as the texture depth, can be tested. The purpose of this is to ensure that the road surface is not completely smooth, to guard against the risk of hydroplaning, where a thin layer of water between the road surface and the tyres of a car can lead to skidding, especially on high-speed roads. It is the aggregate exposed at the surface, whether in the form of chippings or otherwise, which is what gives the road surface its texture depth, and which explains why the quantity and distribution of chippings is of importance. Texture depth can be tested by a volumetric patch test, using sand or glass beads. It can also be tested by a laser sensor, known as a Scanner device. The wet skid resistance of a service can also be tested by measuring the polished stone value (the PSV) and the aggregate abrasion value (AAV) of the aggregate in the surface layer. The wet skid resistance can also be tested using a Scrim test.
- 1.46 The regularity of a pavement surface, its longitudinal surface profile, can also be tested, by means of a rolling straight edge test. As well as being important to promote a smooth driving experience, if a surface is uneven that can lead to uneven impact with potential damage and reduced lifespan, and it will also impact on its drainage ability.

- 1.47 Road marking can also be tested by a variety of means.
- 1.48 There are a wide variety of potential defects in a pavement, of which some of the most common or significant are as follows.
- 1.49 The stone chippings which are spread onto a road surface may be spread insufficiently thickly, or too thickly. If the tar to which the chippings are applied is not spread sufficiently evenly the chippings may not be securely affixed where the tar is too thin, or may insufficient texture depth where the tar is too thick.
- 1.50 There may be deformation of the asphalt surface. This may be due to deformation within the surface itself, or deformation of the underlying layer. An asphalt course may become deformed if the binder used is not sufficiently stiff, or if the asphalt is laid at too cold a temperature. This may also result in what is known as shoving, where soft asphalt at the road surface becomes deformed.
- 1.51 Another problem is delamination. This is where the entire layer is separated from the layer below, and becomes removed from the road surface. This may be caused by a lack of bond due to insufficient tack coat being applied.
- 1.52 Edge deterioration is self-explanatory and is caused, says Cumbria, by there being no or insufficient edge sealant being applied, or by poor compaction.
- 1.53 Fretting is the progressive removal of stones from the surface of the asphalt. It is caused, says Cumbria, by a lack of compaction or by laying when the asphalt is too cold.
- 1.54 Finally, so far as this overview is concerned, there is stripping, which involves a failure of the bond between the aggregate and bitumen, and may lead to the bitumen binder being removed from the asphalt aggregate at the road surface.

2. **The Contract**

(a) **The tender process**

- 2.1 Before I turn to the detailed terms of the contract, I should say that something about the tender process. The tender exercise began in October 2003. The tender required the successful bidder to purchase Cumbria's existing highways maintenance department and its assets, and also to take the benefit of any existing third party contracts that the highways maintenance department had in place at the time of transfer. Thus it was necessary for tenderers to value that business and propose a capital receipt to be paid to Cumbria on award of any contract. Amey submitted its tender in June 2014, offering £8 million by way of capital receipt.
- 2.2 As part of the tender documentation Cumbria provided all prospective tenderers with a copy of the highways pricing schedules, which already had entered against them the rates which the DLO charged Cumbria for carrying out those works. What Cumbria required prospective

tenderers to do was to tender on the basis of offering a discount against those existing rates. Cumbria also provided prospective tenderers with a set of indicative quantities for modelling purposes, although it was made clear that the quantities were not guaranteed. Amey's tender offered what was on average a discount of 9.5% against the existing rates, but there was a considerable variation in the individual discounts, ranging from 3.3% to 25%.

- 2.3 There was no requirement for tenderers to submit a detailed breakdown of their tender prices or rates, and Amey did not do so. However it did undertake its own detailed analysis to satisfy itself that the discounted prices and rates it was offering were realistic, in that they would still deliver an acceptable margin to Amey, once account had been taken of its anticipated direct costs, its overheads, the repayment of the capital sum, and the required investment in upgrading the highways maintenance vehicle fleet. Mr Rhoden, Amey's group estimating and pricing director at the time, explained that it was a complicated process, because Amey did not have the same flexibility to allocate its margin for overhead and profit to individual rates as well as to preliminaries as it thought fit in the same way as it would have done in a more conventional tender process. Nonetheless it was done, and Amey has disclosed its final internal summary spreadsheet, or "make up of selling price" (MUSP), which indicates the headline figures, in particular the allocation of margin as within the various elements of the tender. The MUSP also reveals that Amey was working on the basis of a net margin recovery of 18.6% as regards the highways pricing schedule works.
- 2.4 Amey also produced further internal spreadsheets in relation to its tender. It produced a spreadsheet breaking the individual rates down into labour, materials and mark-up, and a further spreadsheet containing a detailed analysis of the individual rates broken down into the individual items of labour, plant and materials, this spreadsheet being entitled "bill order worksheets".
- 2.5 One particular issue which has arisen in relation to the basis of Amey's tender relates to what has been referred to as the "local area overhead", to which I refer in more detail below. Another particular issue which has arisen relates to certain tender clarifications provided by Cumbria during the tender process, relevant to the street lighting materials claims, and to which I refer at that point.

(b) **The contract documents**

- 2.6 The contract documents are voluminous. However there are 2 key contractual documents. The first is what is referred to as the services agreement. This is the umbrella agreement, under which, and subordinate to, stand the separate agreements dealing with each of the 4 categories of services to be provided by Amey, namely the highways maintenance services, with which this case is concerned, as well as the grounds maintenance services, fleet services and waste sites services which are not the subject of dispute. The separate agreement dealing with the highways maintenance services is referred to as the highways special conditions which, although heavily amended, has as its genesis the NEC second edition priced contract with activity schedule. It is a curious feature of this contract that what was intended by the drafter of the NEC standard form contract to be the primary contract document has been incorporated

by reference into the services agreement as the subsidiary contract document in this case. The services agreement also incorporates the highways specification, which comprises a list of bespoke amendments to the Highways Agency specification for highways works, to which I shall refer in more detail below.

(c) **The services agreement**

- 2.7 At this stage I intend to give only an overview and to deal with one particular matter concerning the valuation of change control items; detailed reference to other clauses will be made as and where necessary.
- 2.8 Condition 4, entitled “Partnering”, imposes mutual obligations of fair dealing, good faith and mutual co-operation and a specific obligation to operate the strategic partnership board, being the primary vehicle to drive improvements and resolve differences. This general obligation is reinforced by specific obligations, such as the obligation in condition 9.3 upon Amey to inform Cumbria of any inability or failure to provide the services, and the further obligation in condition 9.7 to take action and advise Cumbria of its efforts as regards any failure to meet the contract standards.
- 2.9 Conditions 3 and 6 imposed a qualified obligation on Cumbria to invite Amey to provide the relevant services, and an unqualified obligation on Amey to do so, but Cumbria gave no undertaking as to the volume or level of services to be commissioned under the contract. In commercial terms, therefore, Amey bound itself to perform whatever work Cumbria might instruct it to undertake, without any firm guarantee of a minimum amount of work or any upper limit on the work which Cumbria might require it to undertake. This is particularly relevant to those claims made by Amey on the footing that in order to accommodate Cumbria’s requirements for work it had to procure work through sub- contractors and hence, says Amey, at a lesser margin than it had anticipated at tender stage. There was also a “pain /gain” type provision in schedule 13, which is relevant to the efficiency savings claim and counterclaim, and to which I shall refer at the relevant time.
- 2.10 There were a number of provisions which reflected the fact that Amey was carrying out services which Cumbria was obliged by statute to perform, and which also reflected Cumbria’s status and statutory obligations as a local authority as regards the provision of such services. Thus by condition 8.4 Amey accepted that its conduct should be subject to review and scrutiny by Cumbria’s monitoring officer and its chief financial officer, conditions 24 and 42 imposed specific obligations upon Amey in those regards, and condition 25 imposed obligations on Amey in relation to Cumbria’s best value duty. Amey also undertook an obligation under condition 9.5 to provide reasonable access to premises, documents, employees and IT systems in relation to the performance of the services, and conditions 43, 44 and 54 made further provisions in relation to access to records and data. I shall need to consider these conditions in more detail when I come to address Cumbria’s overarching complaint that Amey has failed to comply with these obligations in relation to the provision of documentation and information as regards the performance of its services.

- 2.11 Amey also accepted extensive performance monitoring obligations through condition 28.6 and particularly schedule 11, referring as it did to performance indicators, performance criteria, and a performance system referred to as a performance dashboard. Condition 52 provided a means for the enforcement of these performance obligations, by way of issue of deficiency notices, default notices, warning notices and, potentially, termination. In similar vein, condition 37 imposed specific obligations on Amey as regards quality management, including an obligation to provide an outline quality statement and a quality plan in accordance with the highways special conditions, and to which I shall refer in more detail below.
- 2.12 Although the services agreement also made provision for payment, more detail is to be found in the highways special conditions, and I will refer to those provisions at that stage. Part 1 of schedule 13 comprised a table setting out the agreed discounts from the schedule of rates to be found in the detailed pricing schedules at volume 3(k) of the contract documentation, which itself is to be read subject to the preamble which appears at volume 3(j).
- 2.13 Condition 35 provided that any changes to the services should only be made in accordance with the change control procedure provided for by schedule 6. Changes might be requested by Cumbria or by Amey, and the change control procedure also applied to relevant changes of law, which was a defined term which I shall consider later in the context of certain of Amey's claims. If, as happened here, a change was requested by Cumbria, Amey was obliged to respond by way of response notice, providing the details required by paragraph 4 which included "the anticipated financial consequences of implementing the service change including (where appropriate) a statement of the cost of implementing the service change setting out the details of any lump sum payable by Cumbria and details of the corresponding adjustments to be made to the pricing schedule" (paragraph 4.3). By paragraphs 5 and 7, Cumbria was entitled to challenge the reasonableness of Amey's response and, if necessary, to refer any dispute for determination in accordance with the dispute resolution procedure in schedule 8, which contained a conventional structured escalation procedure, the last stage being the strategic partnership board, followed by adjudication or litigation as a last resort. If the change control procedure worked properly, no change could be brought into effect without agreement or dispute resolution occurring first, however the procedure did not cater for the – sadly not uncommon – situation where the parties agreed to implement the change without having first agreed or having had determined via the dispute resolution procedure the financial consequences of that change. In particular, that is what happened here in relation to a number of the claims involving relevant changes of law; it is common ground between the parties that in such circumstances it is for court to resolve the financial consequences of that relevant change of law on the basis of schedules 6 and 8.
- 2.14 There is, however, a significant issue between the parties as to whether the financial consequences of such changes should be valued only by reference to the additional cost incurred by Amey in complying with the relevant change in law, as Cumbria contends, or whether regard should be had to wider considerations, in particular on the basis that the financial consequences may be those anticipated at the time of the change and not necessarily limited to those actually incurred, as Amey contends.

- 2.15 Cumbria's argument is based on the wording of paragraph 4.3, referred to above, with particular reference to the statement of the cost of implementing the service change. Amey, however, submits that this cannot have been intended solely as a reference to historic costs, and also that the reference to a lump sum or an adjustment to the pricing schedule shows that this was not intended to limit any claim only to direct costs actually incurred.
- 2.16 In my view Cumbria is plainly wrong to submit that the wording of schedule 6 means that Amey is restricted only to the recovery of actual direct costs incurred as a result of the change in law. There is no reason, for example, why in an appropriate case a new rate should not include an element of margin or overhead and profit. However I do accept that schedule 6 does not in itself entitle Amey to include such a claim, nor does it mandate that the valuation must be on a hypothetical looking forwards basis. The task under the change control procedure is to determine the reasonable financial consequences of compliance, on the basis that those consequences are to be kept to a minimum (see paragraph 5), and it will depend on the particular circumstances as to whether that should be by way of cost or a new rate and, in either case, whether that will be a net cost or may include some element of overhead and profit.
- 2.17 Finally, I should refer to condition 38, which made provision for emergency services, and to which I shall refer later in connection with Amey's item 20 claim for timebound works.

(d) **The highways special conditions**

- 2.18 In the same way as with the services agreement I do not attempt an exhaustive summary of the highways special conditions at this point.
- 2.19 Works were to be ordered by way of works instruction. These were to be issued by the named project manager or supervisor who would be a representative of Capita as the overseeing organisation. The works would either be works falling within the schedule of rates contained in the highways pricing schedule what were referred to as discrete schemes. The works were to be specified and described in the works information, defined in part 1 of the contract data as being the individual works instruction and the relevant related information within the highways specification and appendices. Clause 44.3 provided that the price for the works instruction would be obtained by multiplying the final quantities of work done by the relevant rates in the pricing schedule. Clause 21 provided that the works instruction should contain a finish date, which was to be certified as having occurred by Capita.
- 2.20 Consistent with the partnership approach, by clause 6 both Amey and Capita were to warn each other of any matters which could change the prices, the timing or performance of the works or impair the performance of the network, and by clause 7 there were to be regular monthly progress meetings.
- 2.21 As I have already indicated, the special conditions made further provision for quality management, by clause 28, which imposed 3 separate obligations. The first obligation was to

comply with the requirements of the technical submission. The second was to prepare a quality plan procedure and to comply with it. The third was to provide information to demonstrate compliance with its quality management obligations.

- 2.22 The technical submission is a detailed 340-page long document which formed part of Amey's tender submission, and which had 8 separate appendices attached to it. Quality assurance and control procedures were dealt with at section 7.2.1(b) at page 157. In particular, reference was made to: (i) the project specific quality plan, also referred to as the service delivery plan, then in draft, the purpose of which was to describe how quality was to be assured on an individual project; (ii) Amey's external and internal quality assurance compliance auditing and self-certification systems.
- 2.23 The quality plan, comprising part 1 of the service delivery plan, is at [H/1/1]¹. It is a document which was subject to revision over the duration of the contract. It stated that it identified the procedures to be used to comply with Amey's integrated management system, which itself required compliance with national highway sector schemes. One particular sector scheme which has been referred to at trial is sector scheme 16, which is the contract specific quality plan for the laying of asphalt mixes and which, it is common ground, applied to the surfacing works undertaken by Amey. It appears to have been first issued in March 2010. There are 18 sections and 4 appendices. Of relevance to this case is section 18 (page 12) entitled "inspection and testing", which requires an inspection and test plan to be produced in accordance with appendix D, which itself specifies what is required in terms of testing and records. In particular it identifies a requirement for dipping records (to show material depth), with the option of materials reconciliation as an alternative, and sand patch and rolling straight edge tests for surface macrotexture and surface longitude respectively. A record sheet, or roadworks inspection sheet, was to be completed and signed each day to confirm compliance with the specification and contract, using the bespoke form provided. The inspection sheet envisaged that the requisite test results would be attached to it. There was a bespoke dipping record sheet, delivery record sheet and materials reconciliation sheet provided. The dipping record sheet was to record the depth of material laid; the delivery record sheet was to record amongst other things the material delivery temperature, with a comments column to record the material rolling temperature; the materials reconciliation sheet was to compare the intended materials usage with the actual materials usage. It also made provision (page 12) for the retention of records; thus records of inspection and testing of incoming materials and the finished pavement layer were to be kept for at least 6 years, whereas all other records were to be kept for at least 6 months from the end of the maintenance period.
- 2.24 I have referred to these documents in some detail because, as Cumbria submits, they indicate the level of documentation which it was entitled to expect Amey to have been able to produce for each day's surfacing work in order to satisfy its contractual quality assurance obligations.

¹ All references to the documents in the trial bundle appear in this manner.

- 2.25 Clause 29 made provision for testing and inspections. Amey was obliged to undertake the tests and inspections required by the relevant works information, which therefore requires reference to the particular works instruction and the relevant parts of the specification and appendices to ascertain what tests or inspections are required in a particular case.
- 2.26 Clauses 31 to 34 inclusive made provision for defects notification and correction and, thus, are of some importance to Cumbria’s defects claims. In summary, the position was as follows:
- (i) By clause 31.2, there was a mutual obligation upon Amey and Capita to notify each other of any defects found prior to the relevant defects date for each work instruction. Part 1 of the contract data provided at paragraph 4.1 that the defects date was to be 52 weeks from the finish date, unless 104 weeks was specified in the works instruction.
 - (ii) By clause 32.1 Amey was obliged to correct defects as soon as possible, even if not notified by Capita.
 - (iii) Clause 32.1 also stated the consequences of Amey not correcting defects within the time stated which, by paragraph 4.2 of part 1 of the contract data, was 52 weeks. Although not entirely clear whether this was also 52 weeks from the finish date, or 52 weeks from the notification under clause 31.2, in my view it must be the latter, so that Amey had 52 weeks from the date of notification to correct any defects; otherwise this provision would make no sense. This interpretation is also consistent in my view with clause 32.3 and the definition of a defects certificate. It does, however, follow that Capita would be entitled to notify Amey of a defect up to 1 year (or, 2 years, if the works instruction so stated) from completion, and Amey would have a further year to remedy that defect. If Amey did not comply, Capita was to “assess the cost of having the defect corrected by other people and Amey may be requested to pay this amount”. This provision appears again at clause 34, which does not, so far as I can see, add anything material to what is already in clause 32.1.
 - (iv) Cumbria places some weight on the reference to “other people”, which it submits means “Others” as a defined term, thus excluding Cumbria, Capita or Amey. In my view all that this means is that, as one would expect, if Amey had failed to remedy a defect within the time allowed, Capita would have to arrange for it to be remedied by another contractor, and that is the basis by which the cost to be claimed against Amey was to be assessed.
 - (v) Clause 32.2 provided that where it was not possible to correct a defect, then Amey might be required to pay an amount to Cumbria, assessed in the same way as a compensation event. Two points may be made about this. First, there is a difference between something being not practicable and something being not possible; the latter being a more exacting requirement. Second, as will be seen later by reference to the compensation event procedure, what this means in my view is that the assessment will be based on the actual cost to Amey of correcting the relevant defect, ascertained by

reference to the Schedule of Cost Components (as to which see later), plus the stated percentage fee.

- (vi) Finally, clause 33 allowed the parties to agree that instead of a defect being corrected there should be a reduction in the price. Whilst obviously sensible, that has no application in this case where there has been no agreement.

2.27 It is clear in my judgment that these clauses are intended to, and do, comprise a self-contained code for dealing with defects notified within the defects liability period. They are, I am satisfied, not intended to apply to defects which are not notified within that period. That does not mean that Cumbria has no remedy in relation to non-notified defects; what it means is that its remedy is provided for by the general law rather than by these detailed contractual provisions. Although Cumbria appears to suggest that the obligation imposed on Amey to correct defects under clause 32.1 applies whether or not it has been notified of them under clause 31.2, I am satisfied that this is not an indefinitely continuing obligation or, in any event, that non-compliance brings in the remainder of clause 32.1 or clause 34, which in my view only apply to defects which are notified within the requisite time period, but not corrected within the further requisite time period.

2.28 Clauses 37 to 39 made provision for the assessment of what is to be paid by Cumbria to Amey. Clause 37 provides for Capita to make monthly assessments of the amounts due at each assessment date, the amount due being defined as being the sum of the price for work done to date and other amounts to be paid to Amey, less amounts to be paid to or retained by Cumbria. Clause 38 made provision for the submission of a statement of annual account by Amey not later than 6 weeks after the end of each financial year, which “shall be the summation of the 12 monthly assessments, supporting documentation and details of all further sums which Amey considers to be due to it under the contract”. Capita was obliged to issue a payment within 6 weeks after receipt of the annual account “and all information reasonably required for its verification”. Clause 39 made provision for the submission of a statement of final account by Amey not later than 3 months after the end of the contract, which shall “include the summation of all previous annual accounts and supporting documentation showing in detail the value of the work done in accordance with the contract together with all further sums which Amey considered to be due to it under the contract”. Capita was to issue a final payment within 3 months of receipt and of all information reasonably required for verification.

2.29 It is Cumbria’s case that each and every monthly and annual assessment and payment was purely provisional, so that at final account stage Amey was obliged to provide full substantiation of its entitlement as regards all of the work done over the full 7 years of the contract.

2.30 At trial Amey accepted, rightly in my view, that the monthly and annual assessments were not, as a matter of construction of these clauses, final in the sense that they were legally conclusive. Indeed specific provision was made for correction of such assessments in later payments, including in cases of mistake or compensation events, see clauses 37.2.4 and 41.2.

- 2.31 However Amey also submits that as a matter of common sense it could never have been intended that at final assessment stage every item of work undertaken over the past 7 years would need to be fully substantiated from scratch by documentary and/or other evidence. Amey submits that as a matter of interpretation of the contract, and as applied in practice, once: (a) the work instructed under a particular works instruction had been completed; (b) the claim for payment of the final price for that works instruction (see clause 44.3) had been submitted by Amey to Capita on Siteman (see later); (c) the process of discussion and agreement between the relevant representatives of Amey and Capita, following production of such documentary and/or other information as reasonably required, had taken place; (d) the Siteman status of the work instruction had been updated by Capita to show that the work instruction was finalised; (e) the next monthly application included this as a finalised works instruction; (f) payment was made on that basis, then for the next annual assessment and for the final assessment there would be no need to submit anything other than the finalised works instruction in order for Amey to establish its right to that payment, unless or until some proper ground was made out by Cumbria for seeking to re-open that finalised work instruction.
- 2.32 Amey supports its argument by reference to the section at 1/14 of the highways appendices in relation to payment applications, and also by reference to the section in the technical submission in relation to system workflow. It submitted that what happened in practice accorded with these provisions, and that the process was subsequently set out in the Siteman works ordering management procedure flow chart [JA3/33], which showed that once the work was completed Amey and Capita would agree the completion date and work order content, if necessary with a site measure, and that Amey's quantity surveyor would then submit the final account for agreement and measure and approval for payment by Capita, who would then input these details onto Siteman, including the payment certification.
- 2.33 Cumbria does not dispute any of this; indeed this procedure is positively pleaded by Cumbria in its amended defence and counterclaim at paragraphs 78 to 90.
- 2.34 In my view the parties are plainly correct about what was envisaged and indeed agreed within the contract as regards the process for agreeing works instruction final accounts and, hence, what would be required to be produced at annual account and final account stages as regards such finalised works instructions. Of course, to the extent that works instructions were not finalised or agreement reached in annual accounts, as Cumbria says occurred increasingly towards the end of the contract, and as Mr Smith accepted was the case in relation to certain claims in certain years (paragraph 105, first witness statement), this argument does not avail Amey. Amey goes further in relation to the Better Highways claim, and says that even though the works instructions were never formally finalised, due to the continuing disagreement over what rate should be applied, nonetheless the previous procedure continued whereby Amey made monthly submissions for that work, which were scrutinised by Capita and subsequently by Cumbria, and any queries over times worked or materials used or the like discussed and resolved, with Amey providing copies of relevant documents where necessary or required, so that it would not be correct to regard the final account exercise as, in effect, starting from

scratch or in a vacuum, divorced from what had already happened. I address this point in more detail later, since it is more a matter of evidence than contract interpretation.

2.35 A further issue between the parties is whether or not the provision of “all information reasonably required for the verification” of the final account was a condition precedent to Cumbria’s obligation to pay. This is a matter of construction of the clause in its proper context. In my view it was not a strict condition precedent, in the sense that any non-insignificant failure to comply meant that Cumbria was under no obligation to make any payment. Instead, what was envisaged was that Cumbria should be entitled to make reasonable requests for information to verify the claims made, and should then have up to the stated period from the provision of the requisite information to consider that information before making payment. In the context of a contract such as this, envisaging a significant number of individual works instructions issued each year, it could not in my view have been intended that a failure to provide a reasonable level of information in relation to one could justify non-payment of the remainder. Nor could it have been intended that Cumbria could justifiably refuse to make any payment in relation to an individual works instruction for, say, £500,000 simply because Amey had failed to provide a reasonable level of information in relation to one small element of that works instruction. In my view what the clause meant was that Cumbria was entitled to seek all verifying information reasonably required, and that Amey was obliged to provide it, but that if Amey did not do so, whether at all or in some part, then Cumbria’s obligation was still to pay within the specified time, but only on the basis of the information which had been provided. Any dispute would then be resolved, if necessary, via the dispute resolution procedure in schedule 8 to the services agreement.

2.36 Clause 45 provided how the invoice price for works instructions for “routine and cyclic maintenance” is to be calculated. This is a significant clause, because Amey contends that it is the appropriate clause for the valuation of its Better Highways claim. It is common ground that the work undertaken under Better Highways was indeed routine and cyclic maintenance. The clause is sufficiently important to set out in full:

“45.1 The Invoice Price of Works Instructions for Routine and Cyclic maintenance is calculated using any or all of the following methods. A change to a Works Instruction for Routine and Cyclic maintenance is not a compensation event:

45.1.1 where no change occurs to the quantities or items of work instructed then the Price will be calculated by multiplying the quantities of work by the appropriate rate(s) from the Highways Pricing Schedule.

45.1.2 where a change occurs to the quantities of work instructed then the Price will be calculated by multiplying the revised quantities of work by the appropriate rate(s) from the Highways Pricing Schedule. This may occur if the quantities change sufficiently to take the item into another price band.

45.1.3 where a change occurs requiring other items of work to be included in the Works Instruction and these items are contained in the Highways Pricing Schedule then

the Price will be calculated by multiplying the quantities of work for the revised items by the appropriate rate(s) from the Highways Pricing Schedule.

45.1.4 where no Highways Pricing Schedule item is available then the Price for that item will be assessed by the Shorter Schedule of Cost Components. If it is likely that this item will reoccur then details should be collated to enable a new rate to be calculated and included in the Highways Pricing Schedule.”

- 2.37 Thus clause 45.1.1 provided for what was to happen where there was no change to a works instruction; clauses 45.1.2 and 45.1.3 provided for what was to happen where there was a change to a works instruction; whereas clause 45.1.4 provided what was to happen where a works instruction was issued, or changed, in circumstances where no highways pricing schedule item was available. In such a case its price was to be assessed by using the Shorter Schedule of Cost Components (SSCC). The SSCC was incorporated within the highways special conditions. It is, as is well known to quantity surveyors and other construction professionals familiar with the NEC forms of contract, a contractual basis for the valuation of costs, sub-divided into what are known as “people” costs together with the costs of equipment, plant and materials and various other specified types of costs. It also provided for a specified percentage uplift to be added to “people costs” which, the contract data provided here, was 75%. The contract data also provided that the cost of equipment was to be ascertained by reference to the most recent edition of the list published by the Civil Engineering Contractors Association (CECA). There was the option in the contract data to specify a discount from the CECA rates, but that option was not taken up here.
- 2.38 The quantum experts agree that valuation in accordance with the SSCC and the contract data does produce a relatively high valuation compared with other valuation methods, both because of the generous 75% people uplift and because of the use of undiscounted CECA rates, which are also generous. They agree that valuation in accordance with the SSCC is higher than valuation in accordance with the Schedule of Cost Components (SCC), which also forms part of the highways special conditions and is an alternative contractual valuation basis used with the NEC forms of contract. Accordingly, if clause 45.1.4 applied to the valuation of the Better Highways works, then Amey would be entitled to payment calculated by reference to this generous valuation method.
- 2.39 However clause 45.1.4 also provided for what should happen if this item was “likely to recur”, namely that details should be collated to enable a new rate to be calculated. Cumbria contends that on a true interpretation of clause 45.1.4 where there was a new item which was likely to recur, then the new rate which was to be collated and included in the highways pricing schedule was a rate to be calculated without reference to the SSCC, and by reference to established valuation principles based on evidence of actual costs incurred by Amey. In contrast Amey submits that it means no more than that the details which had been obtained by the use of the SSCC to ascertain the relevant costs for people and equipment and so on and used to assess the price should also be collated so as to arrive at a new rate for that new item. In this way Cumbria seeks to avoid the disadvantageous consequences to it of the SSCC being used if Amey is correct to say that clause 45.1.4 should apply.

- 2.40 Whilst I can see that using the SSCC to arrive at a new rate would prove commercially unattractive for Cumbria that consideration is not relevant to my determination; the question is purely one of interpretation alone. Indeed, Cumbria can scarcely complain about the result of using the SSCC when it had agreed to the details being included in the contract data which provided such a relatively high rate. I am unable to accept Cumbria's argument on the interpretation of the clause. If it had been intended that a new rate would be fixed not on the basis of the SSCC but on the basis only of actual costs incurred, or indeed on some other basis, then surely the clause would have said so in clear terms. The words used here are far more consistent with the more straightforward process of taking the details already obtained from the use of the SSCC to enable a new rate to be ascertained. These words and this process are very different for example to the detailed procedure in clause 49 which provides for how a new rate would be arrived at in the case of a compensation event. In any event Cumbria was not locked in to such a rate; if it had wanted to make a permanent change to the services, rather than simply to instruct Amey to undertake routine and cyclic work for which no item was provided for by the highways pricing schedule, then it was entitled to use the service change procedure in Schedule 6 of the service agreement. If it chose not to do so, the result would be that further instructions to undertake that type of work would be valued by reference to a rate arrived at by use of the SSCC.
- 2.41 Accordingly I am against Cumbria on this point of construction.
- 2.42 I turn next to clauses 46 to 51, which addressed what were referred to, following the NEC2 standard form, as "compensation events". Clause 46 identified 22 separate circumstances which were compensation events, including the final catch-all case of any breach of contract by Cumbria, and 2 circumstances which were not, namely changes to the extent of the road network the subject of the contract and, repeating clause 45, a change to a works instruction for routine and cyclic maintenance.
- 2.43 The procedure in relation to compensation events appears in clauses 47 and 48; consistent with the general philosophy of the NEC standard form the expectation was that any price change would be dealt with at the time of notification by the submission of quotations by the contractor for consideration by the overseeing organisation. More significant so far as this case is concerned is clause 49, which specified a number of separate means by which a change to a price arising from a compensation event would be calculated. The starting point, and the default position, is that under 49.1.1 the change would be assessed by reference to the effect of the compensation event upon the "Actual Cost" and the "resulting Fee". The actual cost was a defined term - the "cost of the components in the SCC". As I have said the SCC provided an alternative basis for the assessment of the various cost components of the works, broken down in the same way as the SSCC into people, equipment, plant and materials and the like. The fee was specified in the contract data as being 9%. This has been treated by the quantum experts as being equivalent to Amey's contractual allowance for its head office overhead and its profit. It follows that if clause 49.1.1 applies the actual cost is ascertained in accordance with the SCC and the price is increased by reference to the increase in the actual cost and the addition of the relevant fee. Clause 49.1.10 provided that the assessment should

proceed on the basis that Amey reacted competently and promptly and that the actual cost was reasonably incurred.

- 2.44 If however the compensation event only affected the quantities of work in the highways pricing schedule the change was simply valued by changing the quantities with no change in the fee: clause 49.1.3. Cumbria contends that this is how the Better Highways claim should be valued. There are 2 further alternatives, both of which however could only apply if Amey and Capita agreed, which were either using existing rates as the basis for assessment of new rates or using the SSCC. These are not relevant to this case, since neither Amey or Cumbria has alleged that any agreement was reached as regards these in this case.

(e) **The highways maintenance services specification** (HMSS)

- 2.45 This is identified as being volume 3d of the agreement and comprised a list of bespoke amendments (identified with an “AR” suffix) to the Highways Agency’s Specification for Highways Works (SHW). The services specification comprised 134 pages. The specification for highways works comprises volume 1 of 4 volumes referred to collectively as the Manual of Contract Documents for Highways Works, and comprised 671 pages. At this stage, it is only necessary to refer to the following clauses.

- 2.46 Clause 177AR contained a number of general provisions relating to works instructions. I shall refer to individual parts of this clause where relevant in relation to individual claims.

- 2.47 Series 700 contained a number of detailed provisions relating to road pavement works. Clause 702 was entitled “horizontal alignments, surface levels and surface regularity of pavement courses” and provided details of what was required and the accepted tolerances.

- 2.48 Clause 702.10, entitled “rectification”, stated that “where any pavement area does not comply with the specification for regularity, surface tolerance, thickness, macrotexture depth, material properties for compaction, the full extent of the area which does not comply with the specification shall be made good and the surface of the pavement course shall be rectified in the manner described below”. The clause then referred to what was required in 5 separate cases.

- 2.49 Number (iv) was headed “surface courses, binder courses and top surface of bases in pavements without binder course”, the first paragraph of which provided as follows:

“These shall have the full depth of the course removed, or in the case of base in pavements without binder course, the topmost layer, and replaced with fresh materials laid and compacted in accordance with the specification.”

- 2.50 Number (vi), which was added by the services specification, was “patches” and provided:

“Where the tolerances in clause 702 are exceeded, the overseeing organisation shall determine the full extent of the area which is out of tolerance and the surface of the pavement course

shall be made good by removing the full depth of the layer and replacing fresh materials laid to specification.”

- 2.51 Cumbria relies on these provisions entitling it to demand rectification in accordance with these clauses in each and every case of non-compliance. I do not agree. I accept that it specifies what remedial work is required where the non-compliance is such that replacement is reasonably required. It may also very well be that it sets the starting point, particularly in a case falling within the defects correction provisions of the highways special conditions. However in my view it does not alter the general law, so as to entitle Cumbria to insist upon Amey undertaking work which is not reasonably necessary.
- 2.52 I have already (para 1.39 above) referred to clause 771AR, in relation to patching. The clause also identifies the performance requirements to be “generally as section 2 of the New Roads and Street Works Act Code of Practice Specification for the Reinstatement of Openings in the Highway (with the exception of surface profile and surface regularity)”. There is a streetworks code dated 2002 and an updated streetworks code dated 2010. The latter contains certain provisions relied upon by Cumbria and its paving expert, to which I shall refer at the relevant time.
- 2.53 Clause 3302AR, entitled Highways Response Teams, is of some importance in this case, together with the accompanying appendix 38/5, because the comparison between these highways response teams and the subsequent Better Highways teams is of considerable relevance to Amey’s claim for payment for the Better Highways teams. The teams were to carry out “responsive and preventative maintenance” to roads within their particular geographical area of responsibility and, additionally, were to respond and make safe to reports of dangerous defects identified through the call centre and instructed by Capita, with their general principle being to “find and fix” defects, so as to attempts to achieve a permanent fix at the first visit. They were to undertake work either on their own initiative, or in response to reports from the call centre, or in liaison with community representatives, or by instruction from Capita. It was envisaged that there should be 13 teams of 2 men per team, although in practice it appears there were only 12. Each team should operate with a vehicle and trailer, carrying a limited specified assortment of equipment. They were to work on minor repairs and maintenance, a non-definitive list including potholes and other small scale repairs. They were to work under the instruction of, and report to, using a specified form, the local Capita area inspector. Amey was to be paid on the basis of a rate specified in the schedule of rates per team per day, with a separate rate for additional out of hours working time. Amey was also entitled to payment at the rates specified in the schedule of rates for materials used.
- 2.54 In addition to the small scale repair works envisaged to be done by the highways response teams, clause 3801 AR, entitled “routine maintenance”, made provision for Capita to issue instructions to Amey to undertake a number of conveniently grouped small scale repair works, to be undertaken by small gangs as planned works. This work would be paid for at schedule of rates prices applicable to the particular work done, with a percentage adjustment if instructed to be done out of normal working hours, or within 7 or 28 days.

- 2.55 It follows that under the contract small scale repair works could be undertaken either by the highways response teams working on what was, effectively, a per day rate basis, or by works gangs undertaking planned works on a per item rate basis. The same is true, for example, as regards road sweeping works: see clause 6701AR. It is important to note therefore that Cumbria had the option of instructing this type of small scale repair and maintenance work on either basis; there was no obligation on Cumbria to choose one or the other, and it would have been perfectly entitled, had it so wished, to have instructed Amey to undertake all of this work either through the highways response teams or as planned work.
- 2.56 The services specification also made reference to the winter services, being the provision of an inspection service and a salting / gritting and snow clearance service on specified routes as detailed in appendix 1/74 over the winter period in order to allow traffic to safely on those routes during periods of adverse weather. As part of the service Amey was required to provide a detailed winter service quality plan each quarter to be reviewed and approved by Cumbria. Clause 7101AR identified, in paragraph 10, the routes in question, but also stated that the length was approximate and could vary from year to year. There was also, in paragraph 4, an obligation to provide and maintain specialist plant and other plant and equipment sufficient to carry out the winter service.
- 2.57 I should also refer to the preamble to the specification. Amongst other things this identifies which of the appendices to the specification for highways works was to apply to this contract.
- 2.58 Thus for example there is an important appendix, numbered 1/5, which prescribes the testing to be carried out by Amey. Happily, there appears to be a large measure of agreement as between the paving experts as to what is required in terms of testing; by reference to the corrected table produced by Mr Griffiths, which was copied by Cumbria in paragraph 508 of its closing submissions, it appears that the only dispute relates to surface macrotexture tests. As to this, the entry against clause 921 provides that continuous surface macrotexture testing is required to “all surface courses specified in Appendix 7/1. See note 10”. Appendix 7/1 specifies the surface courses for which surface macrotexture testing is required, and also states “as detailed on works instructions and scheme specific appendices”. Note 10 states that “texture depth measurement requirements shall apply to all areas of surfacing on site exceeding 100 m²”. Furthermore, as Mr Griffiths notes, clause 921 itself is headed “surface macrotexture of high-speed roads”. It provides for measurement using a volumetric patch technique and, by clause 921.2, stipulates an average macrotexture depth of not less than 1.5 mm.
- 2.59 The end result of all this is that Amey contends that this type of testing is only required in relation to high-speed roads exceeding 100 m², and then only in relation to those services mentioned in Appendix 7/1, where there is a specific instruction to that effect on the works instruction or scheme specific appendix. Cumbria contends, however, that there is no need for there to be a specific instruction, nor is the obligation limited to high speed roads. In my view Cumbria is right. Whilst I accept that clause 921 refers only to high speed roads, I consider that this general provision is overridden by note 10, which provides specifically that the testing requirement applies to all areas over 100 m². I do not accept that the reference in Appendix 7/1 to testing being “as detailed” on works instructions and scheme specific

appendices means that without such a specific instruction there was no obligation. It follows, I am satisfied, that there was an obligation to undertake surface macrotexture tests on all surfaces specified in Appendix 7/1 over 100 m².

- 2.60 Another dispute arises in relation to the testing requirements under clause 929, relating to base and binder course macadams. There is a requirement to carry out one in situ air void content test “per site” and a requirement to carry out continuous monitoring with a nuclear density gauge for compaction. The former would have to be carried out by means of a core test, which is consistent with the obligation specified in the streetworks code of 1 core per 6 m². However, both requirements are subject to note 9, which draws a distinction between surfacing sites exceeding 100 m² and patching. As regards the former, the frequency of testing is said to be “as detailed above”. As regards the latter it says:

“A sample as directed by the overseeing organisation (maximum area of 10% of the work identified in the work instruction).”

- 2.61 Cumbria contends that as regards patching Amey was obliged to undertake core tests to 10% by area of its patching works, without needing any specific instruction to do so, whether within the relevant works instruction or otherwise. Amey, on the other hand, contends that unless or until it was instructed by Capita to undertake core tests in relation to specified patching works it was under no obligation to do so. This is a small but significant point of construction, the subject of Cumbria’s patching counterclaim as regards testing, where it values its claim as being £372,191. It is a pure question of construction. Thus it is irrelevant to my decision that the paving experts expressed differing views as to what testing they expected would be required in relation to patching works, as opposed to surfacing works. It is also irrelevant to my decision that Mr Collins expressed the strong view that unless core tests were specifically instructed in relation to patching, he would not expect to do so. Furthermore, although there was some cross-examination as to the circumstances in which certain specific core testing was required in relation to certain specific patching, that again in my view is not relevant, first because it post-dated the contract, and second because it related to a specific request in relation to a dispute which have already arisen, rather than being a general direction of the type envisaged by note 9.

- 2.62 In my view the words “as directed by the overseeing organisation” are clear and can mean only one thing, which is that Amey is under no obligation to undertake any core testing in relation to patching unless and until it is directed to do so by Capita. Capita would be entitled to direct core testing subject to the 10% maximum area limitation. I do not accept Cumbria’s arguments that this is simply a reference to Capita directing the particular location or locations within the patching instructed by the works instruction where the core testing should be carried out. In my view the fact that there is an express limitation placed on the amount of core testing which Capita can direct is only consistent with Amey being under no obligation to undertake core testing without such a direction. Amey was doubtless able to price for this contingency on the basis that its maximum obligation would be limited to 10%, and also on the basis that Capita, as a responsible independent overseeing obligation, would only issue such directions if it thought there was good reason to do so.

- 2.63 This meaning also seems to me to be consistent with the factual matrix. It is clear in my view that there is a distinction to be drawn between surfacing and patching. Patching, as recognised by the contract, encompassed a wide variety of different works, ranging from a small surface patch in an isolated country road to a number of large pavement reconstruction patches on a busy road. What might be expected in relation to the latter might well be completely different to what might be expected in relation to the former, and it would make sense to allow Capita to decide what was necessary in an individual case, rather than forcing Amey to core test all patches in the same way in a “one size fits all” type approach, especially when the cost of so doing would very likely be passed on to Cumbria through Amey’s pricing.
- 2.64 It is also to be observed that Cumbria’s claim for damages assumes that Amey was obliged to test 10% of all patches. But if Amey’s obligation was only to test up to a maximum of 10% of patches, and if as Cumbria says Capita did not have to direct Amey as to how many it should test, then as a matter of law Amey would be entitled to test less than 10% of patches without being in breach of contract. That point is not just relevant to the quantification of any claim for damages; the fact that on Cumbria’s case Capita is not required to direct that particular core tests be taken before Amey’s obligation arises must mean that Amey must decide for itself where and how many core tests to take. It follows that Amey would have been entitled to decide to test any proportion from nothing (subject to an argument that it was implicit that it would have to be a reasonable decision) up to 10%. That construction, however, introduces far more difficulties, and makes less commercial sense, than does Amey’s construction.
- 2.65 Insofar as it was argued, I do not accept that the reference to core testing in the streetworks code can override note 9, given that the former is a general performance requirement, whereas the latter is a specific contractual testing requirements, and given also that it is difficult to categorise the core testing obligation as a performance requirement anyway.

(f) **Other contractual documents**

- 2.66 Whilst there are a large number of other appendices, and other contract documents, incorporated by reference into the contract, I do not need to refer to them specifically at this point. It is perhaps worth noting, since it is relevant to Cumbria’s schedule 5 claim as regards the effect of Cumbria’s tender clarification, that the contract does not contain a compendious list of all contract documents; instead, as I have said, as regards the highways maintenance works there are 3 core contract documents, being the services agreement, the highways special conditions, and the highways maintenance services specification, with other documents being incorporated by reference or, even, by reference through reference.

3. **The witnesses**

- 3.1 This is not a case which turns to any material degree on hotly contested factual disputes which require me to prefer the evidence of one or more witnesses on one side to those on the other side. With very few exceptions, I was satisfied that all of the factual witnesses had come to court to give honest evidence and had done so. Some were more knowledgeable about certain

matters than others. Some had better direct knowledge. Some had better and more reliable recollections. Some were more willing to make concessions adverse to their employer's case. Where relevant I have regard to these considerations in assessing the weight to be given to their evidence. There are of course factual disputes, but by and large they must be resolved through the familiar process of considering the reliability of the evidence given by the witnesses in the context of the contemporaneous documents and the inherent probabilities. Nonetheless I should refer to the witnesses from whom I heard and record, if only briefly, my impression of them as witnesses, before I turn to the substantive issues.

3.2 My assessment of the expert witnesses is perhaps of more significance, and I set out my views of the experts after referring to the witnesses of fact.

(a) **Amey's factual witnesses**

3.3 I should begin by observing that the majority of the employees who had worked for Amey on this contract had transferred over to Amey from Cumbria at the beginning of the contract and then transferred back to Cumbria at the end of the contract. In those circumstances Amey was in some difficulty in obtaining witness statements from the majority of employees who had worked for it on this contract. Nonetheless, Amey was able to adduce evidence from the majority of its senior management team responsible for this contract and, in particular, from 3 of the 4 employees with overall responsibility for the contract, in chronological order Mr Graham, Mr Northrop and Mr Forster, together with its commercial manager, Mr Smith, and its operations manager, Mr Collins. It was also able to call 2 of its 3 area operations managers, as well as a number of others, and was able to cross-examine a good number of Cumbria's witnesses who had previously worked for Amey whilst engaged on the contract.

3.4 I refer to the witnesses in the order in which they gave evidence.

Adam Forster

3.5 Mr Forster gave evidence on days 4 and 5 of the trial. He was the service director of January 2009 until the end of the contract. My overall impression of him was that both in his evidence and in the contemporaneous correspondence he consistently sought to put a spin on his account of events so as to bolster his own position and improve Amey's case. One good example was in relation to the written review which he produced in 2010, where it seemed to me that he was unduly critical of the performance of the previous Amey contract management team and sought to exaggerate his own achievements since being brought onto the contract in early 2009. For that and other reasons I do not regard him as a particularly reliable witness where his evidence was not supported by or inconsistent with the contemporaneous documentary evidence or was contradicted by other more reliable witnesses.

3.6 One important aspect of his oral evidence was whether or not, as he claims, Mr Moss of Cumbria had agreed, both orally and in correspondence, that Amey would not lose out financially by assisting Cumbria in the introduction of the Better Highways programme, so that Amey would not recover a lesser overhead and margin under Better Highways than it was

recovering under the existing arrangements. Mr Forster was unable in my view to provide any convincing level of detail about the conversations in which he said this had been agreed, and the correspondence seemed to me to amount to little more than his communicating his aspirations to Mr Moss, without Mr Moss expressly disagreeing. Indeed, he did not seem to know what the existing overhead and margin was for the particular types of work to which he was referring, and there is no evidence that his discussions, such as they were, with Mr Moss would have involved any greater level of particularity. Overall, it seems to me to be implausible that Mr Moss would have given any assurance of the nature suggested by Mr Forster, let alone have given any contractually binding commitment, and I am unable to accept Mr Forster's evidence to the contrary.

- 3.7 I reached the same conclusion as regards his evidence that there was an agreement between Amey and Cumbria that new rate items should be agreed to cover the increased costs arising from an increase in landfill tax. Mr Forster referred to this agreement to seek to explain why Amey had been unable to provide comprehensive records to evidence its increased costs. Whilst it is apparent from the correspondence that there was an expectation that, going forwards, new rate items should be agreed, it is also apparent that Cumbria never agreed with Amey that Amey did not need to correlate or to keep comprehensive records of its actual costs to substantiate any claim for any period prior to reaching agreement on new rate items.
- 3.8 Another issue of some importance was whether or not Amey had already, by October 2010, decided to reduce its direct employed workforce and make more use of sub-contractors to cater against the risk that the contract would not be extended. In his October 2010 review Mr Forster had made it quite clear that this was the plan, but in cross-examination suggested that this would only have happened had overall turnover reduced, which in fact it did not. When asked in more detail about this review his explanations seemed to me to be contrary to the obvious reality, which was that Amey had, for perfectly good commercial reasons, taken this decision in late 2010 and that this decision explained in part, although I accept it was not the only reason, the increased reliance upon subcontractors in the later stages of the contract.

Russell Smith

- 3.9 Mr Smith gave evidence on days 5 and 6 and again, in relation to the proprietary IT system used by Amey and known as SAP, on day 11. He was, as I have said, the commercial manager for this contract throughout, being a former Cumbria employee who had transferred to Amey and one of the few who had stayed with Amey rather than transferring back at the end of the contract. He seemed to me to have a reasonably good recollection of events. However, I reached the conclusion that his knowledge of the detail of the events and of the claims was not as good as the impression he sought to convey in his witness statements, and I also reached the conclusion that his overall reliability was affected to some degree by his close involvement in the final account process and this litigation.

Ronnie Collins

3.10 Mr Collins gave evidence on days 6 and 7. He was, as I have said, the operations manager for this contract. He was willing to accept in cross-examination, as indeed was to be expected, that he had limited knowledge of the commercial and financial aspects of the relationship between the parties and as to the financial aspects of the claim. It is perhaps unfortunate, therefore, that in certain parts of his witness statements he gave the impression that he could say more about these aspects of the case than in fact he could. Nonetheless he seemed to me to have a reasonably accurate recollection of those operational matters about which he could speak from his personal involvement and knowledge and in respect of which he came across to me as a reliable witness.

Alec Felc

3.11 Mr Felc gave evidence on day 8. He was employed by Amey as an engineering services manager, effectively in charge of Amey's testing laboratory at Penrith, which undertook testing services in relation to the work performed under this contract. Perhaps because he was not directly involved with the performance of the contract he came across to me as holding less strong views than some of the other witnesses and, thus, as reasonably reliable in relation to matters about which he could speak from his own personal knowledge.

Darren Foote

3.12 Mr Foote also gave evidence on day 8. He had been employed by Amey as the area operations manager for the eastern area, comprising Eden and Carlisle, but had subsequently left Amey to join another company. He came across in his oral evidence as a fair-minded and reliable witness, although in the same way as with Mr Collins it seemed to me that his witness statements contained more evidence than he could really give from his own direct knowledge or involvement.

Ewan Preston

3.13 Mr Preston also gave evidence on day 8. He was employed by Amey as a performance manager. The focus of his involvement and evidence was on the process rather than the substance of what Amey did. It seemed to me that he was unable to contribute very much by way of relevant evidence.

Caroline Dodgeon

3.14 Ms Dodgeon gave evidence on day 9. She was employed by Amey at the pre-contract stage and at the early stages of the contract, until mid-2006, as a communication manager. She was therefore unable to say very much about matters immediately relevant to the issues in dispute. In particular, her evidence that towards the later stages of the contract the partnership between Cumbria, Amey and Capita had effectively collapsed was based more upon what she had been told than on any first hand involvement or knowledge.

David Graham

3.15 Mr Graham also gave evidence on day 9. He was employed originally by Cumbria as its head of the construction service, including highways maintenance, and had transferred over to Amey to become its general manager. Following a period of illness in 2007 he became employed as a business development manager, with particular responsibility for service improvements on the Cumbria contract, a role he retained until the end of the contract, after which he rejoined Cumbria for a short time, until taking voluntary redundancy in 2013. In his witness statement he had been critical of Mr Moss; it was put to him that this was due to personal animosity as a result of the circumstances in which he had left Cumbria in 2013. He denied this, in my view convincingly, although it is clear nonetheless that his view of Mr Moss was coloured by his adverse view of him as a manager.

Paul Little

3.16 Mr Little gave evidence on day 10. He was employed originally by Cumbria as a contract manager in the highways department, and transferred over in that capacity to Amey. In 2007 he became “watchman in chief” in relation to the contract, a new managerial role which involved him being the main client contact with Cumbria and others associated with it, such as parish and district councils. He remained in that role until the end of the contract, after which he rejoined Cumbria for a short time before transferring to take employment with another local authority. He gave no indication of having any particular motive to favour one side or the other, and came across to me as an objective, reliable witness. He was cross-examined about his criticism of Mr Robinson as lacking the partnership spirit which the contract required, and I am satisfied from the contemporaneous documentation to which I have been referred that this was indeed the case. Whether or not Mr Robinson’s criticisms of Amey were well founded, it is quite clear that he had little or no intention of adopting a constructive partnership approach to Amey.

Michael Johnson

3.17 Mr Johnson gave evidence on day 10. He was employed by Amey as the area operations manager for the Western area, comprising Allerdale and Copeland, from April 2006 to April 2012. He is no longer employed by Amey, and gave no indication of any adverse view of Cumbria, and came across to me as an objective reliable witness.

Michael Gerrard

3.18 Mr Gerrard gave evidence on day 11. He is employed by Amey as a business support manager. He was initially involved in 2005 in introducing Amey’s financial and administrative systems into the Cumbria contract, including SAP. He was brought into the case as a late stage to give detailed evidence about SAP, in circumstances where the person who would otherwise have been asked to do so, his superior Mr Graham Moss, Amey’s financial controller for its local government contracting sector, was unavailable at trial. As it transpired, it appears that he had an extremely good and detailed knowledge of the intricacies of SAP, using it on a frequent and intensive basis, so that he proved an impressively

knowledgeable and helpful witness. As will be seen, it is unfortunate in my view that Amey did not call on his services at an earlier stage in this litigation, throughout 2015, when Cumbria and its quantum experts were making requests for information from SAP which, I have no doubt, Mr Gerard could have provided had he been asked.

Graham Northrop

- 3.19 Mr Northrop gave evidence on day 12. He was initially involved as Amey's bid manager for the tender process for this contract. He was then involved as the manager of the mobilisation team, and later brought in again from late 2007 to late 2008 to act as general manager, when he left for personal reasons and was replaced by Mr Forster. He is now employed by another company as a contract director. He came across as a reasonable objective witness, with no particular strong view against Cumbria.

Simon Rhoden

- 3.20 Mr Rhoden gave evidence on day 12. I have already referred to his involvement in the tender process. He had no further involvement with this contract until asked to make this witness statement. He had no involvement with the claim, nor was he asked to provide assistance in relation to such parts of the claim as involved considering the initial tender build-up. He is still employed by Amey, and I am satisfied that he was a reliable witness.

(b) **Cumbria's factual witnesses**

Mark Robinson

- 3.21 Mr Robinson gave evidence on days 13 and 14. He is an engineer by background, originally employed by Cumbria, subsequently transferring to Capita. By 2007 he was the Capita business manager in the southern area (Barrow and South Lakes), responsible for managing the contract in that area. He transferred back to Cumbria in the same capacity once Capita's contract had expired in February 2011. Upon his return to Cumbria he became increasingly involved with the disputes with Amey and, in February 2012, became involved full time in this dispute as a commercial claims manager, effectively acting as number 2 to Mr Moss.
- 3.22 Amey submits that both during the contract, particularly in the later stages, and subsequently during the course of this dispute, including in his witness statements and in his oral evidence, he displayed a partisan approach to the case and, in particular a deeply ingrained distrust of and disdain for Amey, its commercial probity and the quality of its contractual performance. I agree with Amey that it can clearly be seen from the contemporary correspondence and from his witness evidence that Mr Robinson did indeed display a partisan approach and these adverse views of Amey. It seemed to me that he was a little more circumspect in his oral evidence but, nonetheless, maintained his essential stance.
- 3.23 I accept that Mr Robinson honestly holds these beliefs, and I also accept that in some respects at least they are not completely without foundation. Nonetheless I accept Amey's overall

submission that I must exercise caution before accepting Mr Robinson's evidence on matters fundamentally in dispute, because his views are so partisan and entrenched that there is a real risk that his evidence is skewed as a result.

- 3.24 I have already referred to his evidence as to the circumstances in which the random sampling points was pleaded in the defence and counterclaim. As I have said, I will deal with it in more detail later, but I emphasise at this point that I do not consider that he is guilty of causing Cumbria to verify a statement of case knowing it to be untrue in the respect complained of by Amey.

Nick Raymond

- 3.25 Mr Raymond gave evidence on day 15. He has worked for Cumbria since 2001, initially as an area engineer. He became a member of the Better Highways project team in August 2009, and became a convert, having initially been somewhat sceptical. He was given responsibility for approving payments to Amey for its Better Highways works as from roll-out stage. He failed in my view to act independently in this respect, effectively doing Mr Moss' bidding, and I did not accept his explanations for the failure to deal in a proper fashion with Amey's payment applications. Once however it had become apparent to him that there was nothing to be gained by obfuscation he came across in evidence as a fundamentally honest and reliable witness, prepared to accept points being put to him where they accorded with his recollection, even where his answers were unfavourable to Cumbria's case.

Martyn Taylor

- 3.26 Mr Taylor also gave evidence on day 15. He worked for Capita as a technician from 2003 onwards in the South Lakes area until February 2011, when he transferred to Cumbria. He was also involved in the Better Highways project from August 2009 onwards, but at a relatively junior role. He was a genuine witness, although there were some errors in his witness statement due to his lack of high level involvement and his lack of direct involvement with the project from February 2011 onwards but also because his witness statements had been made from his unaided memory and without reference to contemporaneous documents.

Brian Rollitt

- 3.27 Mr Rollitt also gave evidence on day 15. He worked for Cumbria and then for Amey until March 2012, when he transferred back to Cumbria. He became a highways steward in 2007, and subsequently worked in a Better Highways team. He was off work for part of that time due to an accident at work for which he successfully sued Amey. In his witness statement he made a number of serious allegations against Amey, none of which were supported by contemporaneous documentary evidence or by the other witnesses; indeed in some respects his evidence was inconsistent with evidence of witnesses called by Cumbria.
- 3.28 He claimed that he had made his statement from contemporaneous notes in his diary, which he said he had made available, but which had not been produced before giving evidence, and I

did not find his evidence convincing about that. More generally, I found his evidence hopelessly confusing and confused. In my view he was a fundamentally unreliable witness, both as a historian and also because his evidence was impaired due to his antipathy towards Amey. It follows that I am unable to place any reliance on his evidence, in particular as regards the serious allegations he made about Amey tipping contaminated waste in quarries and about deliberate double recording and charging for Better Highways work and winter services work.

Phillip Turner

- 3.29 Mr Turner gave evidence on day 16. He worked for Cumbria as a highways operative and then transferred over to Amey. During his time with Amey he became a supervisor. He had made his witness statement without reference to any documents and it was apparent when he was cross-examined that, unsurprisingly, his knowledge of the detail of events and when and in what order they occurred was a little shaky. He was however perfectly willing to admit as much and came across as genuine, albeit not completely reliable for the reasons given.

Marie Fallon

- 3.30 Ms Fallon gave evidence on day 16. She was appointed by Cumbria as the corporate director for environment in March 2009, which included responsibility for highways as well as transport generally and other areas such as regeneration, waste and planning. Mr Moss as the assistant director of highways was specifically responsible for that part of her role and reported directly to her. She remained in that capacity until November 2011, when she left for personal reasons. She was responsible, alongside Mr Moss, for introducing the Better Highways model to Cumbria.

- 3.31 She had produced her witness statement without having had the benefit of sight of many of the contemporaneous documents, and was clearly not as familiar with the detail of the history of events as those with continuing involvement. It was also clear that highways took up only around 20% of her time, so that she was reliant on Mr Moss in particular for the details. It also seemed to me that she was a little defensive when cross-examined on areas where she or her department might be vulnerable to some criticism, for example for proceeding with the Better Highways project roll-out without having put detailed costings in place first. Nonetheless overall my impression of her was that she was a genuine and a mostly reliable witness.

Barry Mallinson

- 3.32 Mr Mallinson gave evidence on day 17. He was employed by Cumbria, then by Amey, and again by Cumbria as a highways supervisor in the Eden area. His evidence was directed to the winter services issue which, after the evidence was called, was the subject of a compromise. Nonetheless, since he gave evidence, I should record that I accept his evidence, which gave a fair and even handed account of his role. The same is true of the other witnesses called that day in relation to this issue, namely James Comerford, Gareth Northwood, Steven Harrison,

Paul Lippett, and also of Timothy Shield and Kevin Towers (who both gave evidence on day 19).

Stephen Pickthall

- 3.33 Mr Pickthall gave evidence on day 18. He was employed by Cumbria, by Amey and again by Cumbria as a street lamp attendant. His evidence related to his knowledge of whether red or white diesel was used by Amey's MEWPS vehicles prior to the change in the relevant law in April 2008. In his witness statement he was clear that he never used red diesel to fill up the MEWPS he drove. He remained clear on that point throughout his evidence, which I have no doubt was honestly given. The question is as to whether it is reliable evidence, which I must consider in the light of the other conflicting evidence on this issue. The same is true of the other witnesses who gave similar evidence on this point on days 18 and 19, namely William Byers, Paul Gilmour, Gary Moore, Les Johnson and Michael Robinson.

Dr Simon Ferley

- 3.34 Dr Ferley gave evidence on day 18. He is employed as a geotechnical engineer by Capita. In 2012 he became involved in providing advice and assistance to Cumbria in relation to what became its schedule 8 waste material claim. He is clearly someone of great ability and expertise, and also someone who took proper care and skill in performing the task assigned to him. Although Mr Streatfeild-James QC was able, by skilful cross-examination, to demonstrate that the work that he and his colleagues undertook was done under time and budgetary constraints and, hence, not as comprehensive as it might otherwise have been, and also that the final reports never proceeded beyond the draft stage, he was not in my view able to undermine the substance of Dr Ferley's evidence or the overall reliability of the reports.

Kieron Thexton

- 3.35 Mr Thexton gave evidence on day 20. He was employed as a quantity surveyor by Cumbria, then by Amey, and again by Cumbria. Whilst with Amey he was responsible for the preparation and submission of the interim and final account claims for the Lilyhall building works. He was, I am satisfied, entirely honest and genuine, and although he willingly accepted that his recollection was limited, and that he had never previously undertaken a quantity surveying exercise on a cost plus contract basis, in my view he was fundamentally reliable and, importantly, there was no basis for thinking that he had knowingly produced an exaggerated or an unsubstantiated claim.

Andrew Moss

- 3.36 Mr Moss gave evidence on days 20 and 21. He had been employed in local government and in highways management for many years, taking a business management degree, before joining Cumbria as interim head of highways in November 2008. In April 2009 he became assistant director of highways and transport, reporting directly to Ms Fallon and her successors, until his position was made redundant and he left Cumbria in September 2015. He was, therefore,

responsible for the Amey contract from late 2008 until its expiry in March 2012, and for the subsequent final accounts and dispute resolution processes.

- 3.37 Although he had not undertaken a detailed review of the contemporaneous documents before producing his witness statement or giving evidence he had, for the most part I am satisfied, a reasonably accurate recollection of the important events. He came across to me as a very intelligent man, who listened carefully to the questions and answered equally carefully. It was a fundamental part of Amey's version of events that he had decided from the outset that he wanted to get rid of Amey and take back the work in-house. His evidence was to the contrary, and he said that he had approached Amey and its contract with an open mind. Insofar as this is a relevant issue, I tend to prefer his version of events to that given by Amey, particularly the evidence given by Mr Forster on this point.
- 3.38 Nonetheless, as with Ms Fallon, I am critical of the decision to roll out Better Highways without having fully understood the budgetary implications and risks and, furthermore, I am satisfied that it was at his instigation that these budgetary problems were managed, at least in the short-term, by instructing Mr Raymond not to pay Amey amounts which, leaving aside the dispute as to the rate, there was no reason to challenge.

Keith Field

- 3.39 Mr Field gave evidence on day 21. He was employed initially by Cumbria as a site and laboratory technician. He transferred to Amey Engineering Laboratories (AEL) in 2005, where he was a senior laboratory technician, then to Capita in 2009, and back to Cumbria in 2011. Whilst at AEL he worked with Mr Felc. The primary importance of his evidence related to the amount of core testing for patching works undertaken by AEL on Amey's instructions. Although there was some inconsistency in his evidence under cross-examination on this point, overall it seems to me that his evidence was consistent with the documentary evidence and that of Mr Felc, and there is no reason not to accept it.

Andrew Harrison

- 3.40 Mr Harrison gave evidence on day 21. He was employed by Cumbria as a road operative, who subsequently became a supervisor at around the time of his transfer to Amey in around 2005, in 2007 transferring to Capita where he became an inspector in the Allendale area, before re-transferring to Cumbria in February 2011. He was cross-examined on the basis that in his witness statement he had included a number of criticisms of Amey and its work quality, which appeared to have been extrapolated from individual examples of poor practice he had experienced into a more widespread problem not just in his own limited area but across Cumbria as a whole. Whilst I am satisfied that he was giving his honest recollection of individual problems, I am not satisfied that I can draw any wider conclusions from that evidence.

Trevor Capstick

3.41 Mr Capstick gave evidence on day 22. He was employed by Capita from 2005, and subsequently from 2011 by Cumbria, as a highways network engineer, with particular responsibility from 2009 for surface dressing work. His evidence concerned Cumbria's schedule 7 claim for uncorrected defects, specifically its claim for uncorrected defects for surface dressing works undertaken in year 3 of the contract onwards. He had made it clear in his witness statement that he was not purporting to give expert evidence, as opposed to evidence of his involvement in the inspection and defect notification process. He came across to me as honest, genuine and fundamentally reliable, although I do not accept all of his evidence for reasons which I make clear when dealing with schedule 7.

David O'Farrell

3.42 Mr O'Farrell gave evidence on days 22 and 23. He is a civil engineer who was employed by Cumbria and then, from 2001, by Capita, before returning to Cumbria in February 2011, acting throughout as a consultant, advising on various technical matters including pavement failures. In March 2012 he joined a company known as PTS (short for Pavement Testing Surfaces), again as a consultant, performing a similar role. Cumbria instructed PTS in 2012 to undertake inspections and produce reports in relation to its concerns as to patching and surfacing works undertaken by Amey. Those instructions were extended and enlarged, so that in the event they continued through until February 2014.

3.43 Mr Farrell was not instructed to act as Cumbria's expert in relation to these matters, in circumstances where Cumbria had already retained the services of an expert in relation to the quality of the works and an expert in relation to statistical issues. However he had nonetheless produced reports and provided comments which, at least in part, read as if they were expert reports and, for reasons which are not entirely clear, were disclosed and relied upon by Cumbria as such in the pre-action protocol exchanges. He said, and I accept, that so far as he was concerned his reports and comments were intended to assist Cumbria's retained experts, rather than to be relied upon as reports and opinions in their own right. Furthermore, he was called to give evidence, and did so, specifically on the basis that Cumbria was not seeking to rely upon any opinion evidence contained in the reports which he produced.

3.44 I am critical of Cumbria for the confused and inconsistent way in which Mr O'Farrell and PTS were instructed to produce some form of hybrid factual and expert assistance in this case, in circumstances where these instructions ran parallel to instructions to paving and statistical experts who, so far as I am aware, were always intended to fulfil this role in case of any litigation. Since Cumbria has maintained privilege in relation to these matters, both Amey and this court have been left rather uncertain as to the extent to which the investigation into patching and surfacing defects was being directed, from a technical and statistical perspective, by Cumbria, by its internal or external lawyers, by its non-expert consultants, by PTS, or by its retained experts. Not only has this approach not assisted Cumbria when I come to consider the substantive criticisms made by Amey of the way in which PTS conducted the work which it did, but it also placed Mr O'Farrell personally in a rather difficult position when it came to giving evidence. However, I am satisfied that he did his best to give non-partisan and genuine

evidence under cross-examination, and that he was an honest, genuine and largely reliable witness of fact.

Steve Brammer, Tom Savage and Andrew Johnston

- 3.45 Mr Brammer and Mr Savage both gave evidence on day 23. They are both employed by PTS. They both undertook inspections of various patching and surfacing works as part of the PTS testing operation described above. Both were cross-examined with a view to identifying errors or inconsistencies in their identification of defects on their inspection forms. There were, it appeared to me, some errors which were apparent. Mr Brammer was more willing to accept errors than was Mr Savage, who was more keen to defend himself against any criticism of his work. I was not convinced that Mr Savage had conducted quite so thorough and careful an inspection process as he asserted, no doubt due to the pressure of time and work caused, not least, by the difficulties in locating a sufficient number of suitable patches to inspect in accordance with the timetable and procedure established by Cumbria and its advisers.
- 3.46 Mr Johnston gave evidence on day 26. He is a former employee of PTS, who conducted a number of inspections and produced a number of inspection forms in the same way as did Mr Brammer and Mr Savage. It is apparent from his contemporaneous records and his oral evidence that he was a careful and reliable inspector upon whose evidence, both contemporaneous and oral, I could rely.

Michael Roper

- 3.47 Mr Roper gave evidence on day 24. He has been employed by Cumbria throughout, until late 2010 as a principal auditor, working in Cumbria's internal audit department, with a particular focus on auditing partnership arrangements of the type entered into with Capita and Amey. From late 2010, due to his increasing involvement in the issues involving Amey, he became seconded to the role of project officer, working exclusively on the claims and counterclaims the subject of this case.
- 3.48 He was cross-examined by Mr Singer for Amey on the footing that in his role in investigating and preparing the defence to Amey's claims and the counterclaims made by Cumbria he had adopted an adversarial approach, as opposed to the dispassionate objective approach to be expected of an auditor. Whilst it may be open to question as to whether or not he was undertaking an audit role at this stage, I am nonetheless satisfied that he did indeed display a partisan approach. It seemed to me that he had followed the party line, emanating from Mr Moss, Mr Robinson and the head of internal audit, Simon Smith, to the effect that Amey had not performed the contract in accordance with the standards required, and had repeatedly stonewalled and obfuscated Cumbria's attempts to obtain information and improvements. The end result was that he was willing to believe them capable of serious misconduct, on the basis of relatively limited information. In the event, therefore, whilst I accept him as an honest witness, I am unable to place much weight on the conclusions derived from his investigations, where not supported by reliable contemporaneous evidence.

Andrew Hill

- 3.49 Mr Hill gave evidence on day 25. It became clear that he had little if any involvement in patching works, as opposed to his primary area of kerbing and flagging works, so that he was unable to give any evidence of any real relevance to the issues in this case, notwithstanding what he had said in his witness statement.

David Atkinson and David Crowe

- 3.50 Mr Atkinson and Mr Crowe also gave evidence on day 25. Mr Atkinson was employed as a ganger whilst with Amey, subsequently transferring back to Cumbria. He worked predominantly in the Eden area. As his evidence unfolded it became clear that he had little of any real relevance to say; for example whilst at first reading his paragraph 9 of his witness statement might have conveyed the impression that the patch edges parallel to the road were not saw cut and, hence, defective, under cross-examination it became clear that the only point he was making was that they were not saw cut because they did not need to be saw cut. He also gave some evidence about what he said he had been told by someone else was the practice in the South Lakes area, about which I do not consider I can place any reliance, not least given that it was not supported by the evidence of Mr Crowe, who was a ganger in that area but who did not address that in his evidence.

Ricki Crawford

- 3.51 Mr Crawford gave evidence on day 25. He was employed as an inspector by Capita in Copeland, transferring back to Cumbria. He gave evidence as to the performance of his role, from which it was apparent that when defective work was observed it was addressed, where necessary, by his issuing a defects notice and, if not remedied, escalated in accordance with the contract procedure. Insofar as the tenor of his evidence was that the standard of work was such that there would have been many occasions when defective work was not seen and was covered over, so that it was not possible to issue a defects notice, I do not consider that I can safely draw any such inference from this evidence by itself, his evidence being no more than his general and undocumented recollection of events now going back over 5 years.

Sean Mitchell

- 3.52 Mr Mitchell gave evidence on day 25. He was employed as an inspector by Capita before transferring back to Cumbria. His evidence was to similar effect to that of Mr Crawford. Insofar as he became aware of defective workmanship, he would deal with it through the contract procedures by way of defect notices. In the same way I do not consider that I can draw any wider inferences from his evidence. Also, I was not convinced by his evidence about some records relating to a surfacing carpet tile test being forged; there is no evidence that this was raised or investigated at the time, and it seemed to me that he was not willing to come clean in his evidence and say who he believed was responsible for this on the only individual occasion he says he was able to remember it happening.

David Huck

- 3.53 Mr Huck gave evidence on day 26. He is a former Capita inspector, now working for Cumbria. His evidence was to similar effect as that of Mr Crawford and Mr Mitchell. He came across to me as a sensible and a reliable witness.

David Harrison

- 3.54 Mr Harrison gave evidence on day 26. He was an engineer employed by Capita as the man in charge of technical matters in Allendale, subsequently transferring to and performing a similar function for Cumbria. It is apparent from his evidence that he, along with others within Capita and Cumbria in Allerdale, were thoroughly unimpressed with Amey's performance in Allerdale, and had made a number of repeated efforts to persuade their superiors to take robust action against Amey in relation to what they believed was persistent poor performance if not worse. By and large, those efforts were unsuccessful until 2010 when, having gone direct to an elected member in frustration about their complaints being ignored by their superiors, the audit department became involved, leading to Mr Roper's investigation.
- 3.55 Mr Harrison was subjected to forceful cross-examination on the basis that his evidence was partisan and unreliable due to the strength of his adverse views of Amey. I do accept much of that criticism and, whilst I accept that he was a genuine witness who genuinely believed that Amey's performance was at best poor and at worst sharp practice, nonetheless given the partisan nature of his evidence I do not consider that I can place very much if any weight on it, save where corroborated. Indeed his recollection in cross-examination of the detail of matters was, it seemed to me, extremely poor, either because he had largely forgotten the detail, or because in a number of instances I am satisfied that he was taking refuge from difficult questions by professing to have a lack of recollection. For example in his witness statement, referring to a report he produced in late 2007, he stated that matters did not improve subsequently, whereas the contemporaneous documentation which was put to him showed that there was indeed an improvement after that time.

John Robinson

- 3.56 Mr Robinson gave evidence on days 26 and 27. He is now retired, but was employed by Cumbria over the duration of the contract as a senior officer, responsible for overseeing the highways capital and revenue works undertaken by Cumbria. It was apparent that he had enjoyed reasonable success in enabling the parties to reach constructive agreements in relation to matters in dispute which arose during the course of the contract and for which he had responsibility. He came across to me as plainly honest and reliable, with a reasonable recollection of the matters in which he had been involved.

Amber Sykes

- 3.57 Ms Sykes gave evidence on day 27. She was employed by Cumbria as an engineer, then by Capita as a business manager, and again by Cumbria as a network manager. She was

previously known as Sean Sykes, which explains why the contemporaneous documents refer to her by this name. She came across as plainly honest and reliable and, although it was suggested to her that she had become part of the “claims team”, with a motive to exaggerate her criticisms of Amey, I did not receive that impression from her evidence in cross-examination.

Kevin Thompson

- 3.58 Mr Thompson gave evidence on day 27. He was employed as an engineer in the Copeland area, first by Cumbria, then by Capita, then back to Cumbria. He was a plainly honest, reliable and fair minded witness.

Karl Melville

- 3.59 Mr Melville also gave evidence on day 27. He was the Capita service manager for Copeland from 2005 through to 2011 and, in the latter stages of that period, also the Cumbria area engineer for that region. He was seconded to Better Highways, and had clearly “bought in” to that project. In his witness statement he was critical in places of Amey’s engagement with Better Highways but, when taken through the contemporaneous documents in cross-examination, a far more complimentary picture emerged, where the focus of his criticism seem to be much more directed against Capita than Amey and, insofar as it was directed against Amey, was more due to a personal dislike of Mr Johnson than any general criticism of the organisation as a whole. In the circumstances, it seemed to me to be difficult to place much, if any weight, on his oral evidence where not supported by or not inconsistent with the contemporaneous documents.

(c) The paving experts

- 3.60 In summary, both paving experts were highly impressive as regards their qualifications and their experience, and both faced a difficult task in terms of the volume of material with which they were faced and the absence of much by way of contemporaneous documentary information. They were both faced with the difficulty of having to provide information from such documentary evidence as there was, principally the subsequent inspections by PTS and others. However Mr Griffiths had taken the opportunity to undertake physical inspections of a number of the sites in order to clarify matters, whereas Professor Knapton had not, principally – but not exclusively – due to his relatively later instruction as an expert in this case.
- 3.61 They both came across, as would be expected, as properly independent witnesses, willing to make reasonable concessions where appropriate. That said, there were individual instances where each had given an opinion which in the end they were unable to justify, but where instead of conceding as much they continued to seek to defend it in cross-examination. To some extent both of them had taken an entrenched stance, consistent with their clients’ respective positions.

3.62 On balance, where there is a dispute on a particular issue within their sphere of expertise, and which I cannot resolve by reference to my assessment of the evidence on that specific issue, I prefer the opinion of Mr Griffiths to that of Professor Knapton. That is because I consider that overall he has adopted a more careful and detailed approach to the individual issues than has Professor Knapton. I consider that Professor Knapton has been too reliant upon the case put forward by Cumbria, without critically analysing the source or the reliability of the evidence or sources of that case.

Professor Knapton

3.63 Professor Knapton gave evidence on days 28 and 29. He was instructed in July 2015 following the resignation of Professor Walsh, who Cumbria had originally instructed as its paving expert. He has, as I have said, great expertise, both technical and practical, in relation to paving works. However he was placed in the unenviable position of inheriting a case from a previous expert, where there was a large volume of individually small cases, predominantly produced on the basis of visual inspections by PTS, instructed on a “quasi expert” basis, with further input from some unidentified person or persons as to whether or not what was viewed comprised defective works and what remedial works were required, with no indication that the previous expert had undertaken a physical inspection or all, or even any, of those individual sites, and in circumstances where he was faced with a relatively tight timescale for engaging in joint discussions, producing a joint statement, followed by his principal report, further discussions and statement, and supplemental report.

3.64 Thus, working under considerable pressure, he produced a preliminary joint statement and a further joint statement with Mr Griffiths in August and in October 2015 respectively, and then produced his principal report in November 2015. At no point prior to this did he inspect any of the patches or surfaces. It follows that his report was a “desktop study”, and it is in my view surprising that he did not, as Mr Griffiths had done, inspect if only a small number to get a flavour which could not be obtained purely from the photographs produced by PTS. Furthermore, Professor Knapton had not even looked at all of the documentary material generated by others and then formed his own opinion on that material; instead he had conducted a review of the work undertaken by PTS and others. His principal report contained lengthy extracts from the patching and surfacing schedules produced by Cumbria in support of its case, without rigorous independent analysis of the contents of those schedules.

3.65 It seemed to me that in his first report, due to his lack of previous involvement, the lack of time properly to familiarise himself with the detail, and this failure to undertake physical inspections, he had been somewhat too ready to accept the comments of PTS at face value, so that he had said that he could support a number of claims when subsequent analysis showed that he could not. In cross-examination he had to accept that there were further errors in his analysis which he had not previously observed. It seemed to me that he had been too willing to discount all criticism of PTS or its methods, without having undertaken a full or a rigorous examination of what they had done.

- 3.66 I am also critical of his expressing a view on the schedule 7 claim in his principal report, in circumstances where he had clearly had insufficient time to do anything more than to undertake at most a cursory review of Cumbria's case in relation to that claim prior to producing his report. It also was the case that in his principal report he had expressed views on matters which he knew were in dispute and were not for him to opine about, such as what the contract required in terms of testing on patching: see paragraph 14 of his executive summary.
- 3.67 It also seemed to me that he had not fully engaged with the difficulties caused to Cumbria's case by the fact that PTS had not been asked to provide any input either into the question of the cause of the defects observed, in particular whether it was a breach of contract on Amey's part and, if so what, or into the question of what, if any, remedial works were appropriate. His reasoning at paragraph 4.49 of his principal report on this question seems to me to be confused and confusing; whilst he accepted that there could be other causes of patch defects, he rejected those in this case because, he said: "generally PTS have identified patches installed by Amey". Whilst in fairness to him he did consider this question further at section 8 of his report, there he makes comments for example about the design of the patches which in my view are difficult to justify as a matter of expert opinion. In cross-examination he said that he was aware that these matters had been addressed by "the Cumbria team", but he seemed to me to be a little reluctant to explain who he meant by this, or even whether he knew who they were. Overall, it seemed to me that he should have appreciated that he would need to devote some considerable time and energy to these significant issues but, probably due to the pressure of time, had not done so. It seemed to me that as a consequence a significant proportion of his opinion evidence on these important points came very much "off the cuff", rather than being properly thought through.
- 3.68 For example, in relation to patching visual defect claim number 208, which I refer to in more detail below, the photographs showed very little, and the visual inspection sheet did not give very much more information. The claim appeared distinctly odd, explaining perhaps why no claim had been made originally by Cumbria, and if Professor Knapton had gone to the core test, which he did not do even though it was this which was said to justify the claim, he would have appreciated that the core had not been taken from this patch, so that it did not support or justify the claim. Another example is patching visual defects claims 186 and 256, where the PTS inspector had inspected the wrong patch, but Professor Knapton supported PTS, and dismissed the contrary views of Mr Griffiths and Mr Collins without having inspected the patch, even though he knew that they had done so before saying what they did, and even though the photographs he referred to in his principal report to justify his stance showed quite clearly that what Mr Griffiths and Mr Collins were saying was right. It was only after he and Mr O'Farrell had gone out to inspect the patch during the course of the trial that he accepted that Mr Griffiths and Mr Collins were right and he was wrong, although he did not explain this until he was cross-examined upon it.
- 3.69 As well as deferring unduly to the views of PTS, he also seemed to me to be too willing to defer to the views of the Cumbria team in relation to whether an item recorded by PTS was a defect for which Amey was responsible and if so what remedial works were appropriate. An

example which sticks in the mind is in relation to surfacing visible defects claim 58, where 1 issue was whether a defect was inside or outside the area surfaced by Amey. In cross examination Professor Knapton seemed to place reliance on the “feeling” expressed by Mr Robinson at the site view when considering whether or not the defect was inside or outside the area of surfacing works.

- 3.70 There were also some occasions where it seemed to me that Professor Knapton had been a little careless; for example there was a photograph which clearly, at least to the expert eye, showed that overbanding had been applied to a joint to a patch and the adjacent surface, but which he had referred to as if it was an example of evidence of proper application of the tack coat applied to the joint.

Mr Griffiths

- 3.71 Mr Griffiths gave evidence on days 30 and 31. Amey had originally instructed a Mr Elliott as its paving expert, but had replaced him with Mr Griffiths, albeit at a much earlier stage than Cumbria had involved Professor Knapton. As with Professor Knapton, Mr Griffiths clearly had great expertise, both technical and practical, in relation to paving works. His principal report began with a desktop review including an examination of the relevant photographs. Unlike Professor Knapton, he also undertook 2 site visits, which supported the conclusions he had reached from his desktop review. In my view Mr Griffiths approach was preferable to that of Professor Knapton, in that he looked at the individual claim in the context of the overall history and the location of the patch, rather than looking at the patch in isolation.
- 3.72 However Mr Griffiths had adopted at times what appears to me to have been rather too robust an approach in relation to individual claims in the schedules attached to his reports. In some cases he cast doubt on individual claims without having undertaken a sufficiently intensive analysis which would have justified some of the comments made. One such example relates to surfacing claim 60, where in my view his initial opinion in his report was based on an insufficiently careful examination of the PTS inspection and the works instruction, and an over readiness to assume that the cause of any defect was a problem with the foundations or an inadequate design, without there being any real basis for that assertion.
- 3.73 Moreover, there was some tendency to obfuscation in his evidence. For example, when he was asked about the importance of the thickness of the surface layer, he initially sought to avoid giving a straightforward answer and, in the end, gave what appeared to me to be a rather grudging half admission. This was allied to a tendency to be rather stubborn in his view under cross-examination, only conceding a point where the evidence was really overwhelming.
- 3.74 However, despite these criticisms overall I was, as I have said, more favourably impressed with his evidence, written and oral, than I was with that of Professor Knapton.

(d) **The statistical experts**

Mr Hodgen

- 3.75 Cumbria relied upon the evidence of Mr Gordon Hodgen, who gave evidence on day 32. He is a chartered accountant, specialising in forensic accounting, with a particular interest and a familiarity with statistical techniques. He is a Fellow of the Royal Statistical Society. He accepted in cross-examination that his expertise was more in using statistical techniques in auditing quantum claims, as opposed to devising and implementing statistical investigations. His approach and his evidence in this case was consistent with his expertise, focusing on his assessment of the practicalities of the sample testing undertaken by PTS, as opposed to an analysis of what further or other statistical investigation PTS might have been able to undertake had it considered the importance of doing so from the outset.
- 3.76 In his report and in his evidence he sought to justify Cumbria's case on extrapolation on the basis that the sample, although not statistically random, could nonetheless be justified as being statistically representative, and thus something upon which reliance could be placed to support the extrapolation contended for by Cumbria.
- 3.77 In so doing, he placed significant reliance upon his assessment of PTS as a company, and Mr O'Farrell as an individual, as having significant knowledge and experience in sampling, which would have been used to ensure that a proper representative sample was obtained. Unfortunately for him, the evidence demonstrates quite clearly in my view, as I will set out in more detail later, that this reliance was misplaced. Although he strove gallantly in cross-examination to support his opinions, he faced a very difficult task and, ultimately, was unsuccessful, for reasons I give in detail later. However I should say at this stage, insofar as it is relevant, that I entirely accept his evidence that his previous involvement, in late 2013 and in 2014, in providing advice on statistical issues to Cumbria, was at a high level of generality, and did not involve him providing detailed advice as to the specifics of the further sampling exercises undertaken by PTS in 2014.

Dr van Liere

- 3.78 Amey relied upon the expert statistical evidence of Dr Kent van Liere, who gave evidence on day 33. Dr van Liere has academic and commercial expertise in sample analysis, and in survey research, with substantial experience of designing and implementing sampling plans, including plans in connection with litigation in product defect cases. He was critical of the sampling undertaken by Cumbria in relation to its patching as well as its surfacing claims, concluding that they could not safely be used to support the extrapolation contended for by Cumbria. He was also asked to consider the sampling undertaken by Amey in relation to its claims 17 and 20. He was careful only to support those elements of that sampling which he felt could properly be supported which, importantly, did not include the extrapolation claim in relation to liability in claim 17.
- 3.79 I found him an impressive and a reliable expert witness. It was put to him in cross-examination that there was an inconsistency in his approach as regards his criticisms of Cumbria's sampling as compared with his endorsement of Amey's sampling, but I am satisfied first that he had only a very limited role in Amey's sampling processes, secondly that

he had not endorsed Amey's original sampling approach, and third that he was able to explain convincingly why he had felt able to support certain aspects of Amey's revised sampling approach in a way which was not inconsistent with his criticisms of Cumbria's sampling approach. Overall, I have no real hesitation in accepting his opinions, and in preferring them to those expressed by Mr Hodgen, where there is a significant dispute between the two.

(e) **The quantum experts**

- 3.80 Amey instructed George Taft to deal with the quantum aspects of all of the claim and counterclaim items, whereas Cumbria instructed Tim McGoldrick to deal with the claim items (and the counterclaim items in so far as they were the obverse of the claim items) and Peter Dale to deal with the remaining counterclaim items (schedules 1 to 5 and 7). In the same way as with the other experts, the quantum experts held discussions and produced preliminary joint statements, before proceeding to produce principal reports, further joint statements and supplemental reports.
- 3.81 During the course of the trial Mr McGoldrick also produced a further supplemental report, considering some of the items further by reference to further documents produced by Amey through SAP which had not been available at the time he produced his previous supplemental report. Amey, sensibly, did not oppose that report being admitted into evidence, subject to being allowed time to produce a further report by Mr Taft in reply, which was duly produced dated 28 April 2016. Further supplemental joint statements were also produced.
- 3.82 The end result was that by the time the quantum experts came to give their evidence all 3 experts had produced a formidable body of written evidence. Regrettably, that was a reflection of the fact that they had failed to reach agreement in relation to a significant number of issues, even on a "figures as figures" basis.
- 3.83 The divergences of opinion was particularly significant as regards Mr Taft and Mr McGoldrick. It was put to Mr McGoldrick in cross-examination that the reason for this was his unrealistic approach to the case, but it seems to me to be more of a reflection of a number of factors, including: (1) the numerous disputed issues of contract construction, of fact, and of expert evidence in relation to liability and extrapolation in Amey's Item 17 claim, all of which were outside the scope of the quantum experts' expertise but which made it difficult for them to reach agreement even on a figures as figures basis; (2) the fundamental differences between the parties as to whether Amey's claims should be valued by reference to the data input onto Siteman or by reference to the records obtained by SAP or from other sources, and if the latter whether those records had been properly or sufficiently disclosed; (3) the rigorous cost-based approach which Mr McGoldrick had been instructed by Cumbria to take to Amey's claims, on the basis that Cumbria as a local authority had statutory obligations to ensure that claims were properly scrutinised and verified before being accepted; (4) the fact that most, if not all, of the claims had already been produced, in some cases in great detail and with considerable assistance from consultants, before the quantum experts were involved, so that their role was more of a review of claims produced by others than the ascertainment of the quantification of the claims from the outset; (5) the sheer scale of the role required of the quantum experts,

coupled with the need for very close continuing liaison between the experts and their respective clients, which led to the experts becoming rather too involved with the case and, perhaps inevitably, less dispassionate and impartial than one would have hoped for. In short, I do not accept Amey's complaint that it is Mr McGoldrick who is responsible for the lack of agreement, although I do accept that there was clearly less of a rapport between him and Mr Taft than there was between Mr Dale and Mr Taft.

Mr Taft

- 3.84 Mr Taft gave evidence on days 34, 35 and 36. He is clearly an experienced and knowledgeable quantity surveyor, and had clearly spent a very considerable amount of time and effort in relation to the claims and counterclaims, having first been instructed in 2012. It would appear that his initial report, produced at that stage, was a relatively high level report, without a very detailed or rigorous analysis of the basis behind many of the claims, where his input was in some respects limited to verifying the arithmetic. However, in perhaps the same way as with Professor Knapton as Cumbria's paving expert, having done so, it seemed to me that he subsequently found it rather difficult to look at the claims and counterclaims again with a completely fresh mind once he had been retained in relation to the litigation itself.
- 3.85 One example relates to the landfill tax claim. There was no documentary or other evidence produced by Amey to show that subcontractors had sought to pass on increases in landfill tax to Amey, thereby potentially removing a substantial part of the claim. The documentary evidence which Amey subsequently produced showed that the subcontractors rates increase was limited to increases in the retail price index excluding mortgages (RPIx). Amey adduced no evidence to the effect that the commercial basis for this increase was that the subcontractors also asked for a further rates increase to cater for the landfill tax increase. However Mr Taft sought to suggest, and persisted in suggesting, that this still might have been the explanation, in an attempt in my view to advance Amey's case when there was no proper basis or material to do so.

Mr Dale

- 3.86 Mr Dale gave evidence on day 37. He is also an experienced and knowledgeable quantity surveyor. He gave evidence in a reasonable and balanced manner. He had, however, strayed a little into matters of argument in his reports, one example being his seeking to suggest that Cumbria's in-house patch repair costs would have been no less than those of the framework contractors it had contracted with after the contract with Amey came to an end, even though there was no evidence to support this argument, because Cumbria had not devised or implemented any IT system capable of recording its direct labour organisation patch repair costs. In fairness to Mr Dale, however, when this point was put to him in cross-examination he readily acknowledged it, consistent with his overall approach to giving evidence in this case.

Mr McGoldrick

- 3.87 Mr McGoldrick gave evidence on days 38 and 39. As I have said, his instructions were to ascertain costs incurred by Amey by reference to the available records, and in my view his approach is open to criticism because he had done so without having regard to wider considerations, what might be referred to as a “reality check”. By way of example, he had concluded that the number of gang days worked was far less than that claimed, on the basis of a narrow examination of the records produced by Amey from SAP, without having regard to the question as to whether or not the outcome was realistic or accorded with what had been discussed or agreed at the time between those tasked with valuing such claims. When pressed about this, his answer was that he had been instructed to value by reference to documentary information, and that is what he had done.
- 3.88 Whilst that is something with which I shall grapple in due course, it is also worth observing however at this stage that he was prepared to conduct an equivalent reality check in certain cases, where it was in Cumbria’s interests to do so. For example one of his reasons for objecting to the valuation of Better Highways using the SSCC and using CECA rates was that it would produce an unacceptably high return for Amey, whereas that seemed to me to be irrelevant to the question of what the contract required and what the valuation should be if SSCC and CECA should apply.
- 3.89 Standing back, however, from all this, this is not in my view a case where I can confidently conclude that I should prefer the opinion of one quantum expert over the other wherever there is a dispute which I cannot otherwise resolve. Instead, I will have to consider the merits of the arguments which they advance by reference to each of the individual claims and counterclaims.

4. **Sources of documents and disclosure issues**

- 4.1 Issues relating to the categories and sources of documentation available to and disclosed by the parties have featured heavily in this case. Both parties have, not surprisingly given the duration and subject matter of the contract, generated very significant quantities of documents, both in paper and electronic form, during the lifetime of the contract and subsequently. Given the breadth and depth of the claims and counterclaims made, a large number of these documents are, or potentially may be, of relevance. The particular question as to the adequacy of Amey’s disclosure, both in relation to its paper documents (in particular its test records and its records of work done under Better Highways) and in relation to its electronic documents (and, in particular, the proprietary software system known as SAP, designed for cost reporting and allocation, and used by Amey since 2002 for financial reporting and recording) has generated considerable debate and dispute both in the interlocutory stages and at trial.
- 4.2 In paragraph 332 of its closing submissions Amey said that “the issue of disclosure has been smouldering throughout the hearing”. It is more accurate to say that it has been smouldering throughout the whole case, but at times, including during the course of the trial, it has been fanned up by one or other of the parties and broken out into fierce flames. It was the subject

of relatively concise submissions in Amey's closing submissions (paragraphs 332 to 339) and more detailed submissions from Cumbria at paragraphs 18 to 114.

- 4.3 Since it is a matter which is potentially relevant both to a number of the substantive issues, where Cumbria invites me to draw adverse inferences against Amey by reason of its alleged failure to produce documents which it was obliged to do, both under the contract and by way of disclosure, and also to conduct, in the context of what will inevitably be a hard fought battle as to costs, the parties were agreed in closing that I should fully address this vexed issue as far as I am able in this judgment.
- 4.4 I will address firstly the uncontroversial issue of common documents, secondly the issue of Amey's documents, and thirdly the issue of Cumbria's documents.

(a) **Common documents**

- 4.5 It is common ground that there were a number of meetings involving the parties under the contract, all of which generated agendas and minutes. So there were senior partnership board meetings, there were monthly meetings of the Cumbria highways management team, there were regular local area partnership meetings, and individual working groups were set up to produce guidance notes. It is also common ground that from time to time defects lists would be produced and circulated.
- 4.6 I have already referred to Siteman. This was Amey's work order management system, secure access to which was made available to Cumbria and to Capita during the course of the contract, which enabled all parties to track each individual works instruction from inception to completion. I have been referred to the Siteman works ordering management procedure flow chart, which sets out in the form of a flowchart how the procedure was to work. In summary, works instructions were generated and input onto Siteman by Capita. Once the works were completed, the completion date and works order content were to be agreed, with a site measure as required, and the relevant data being input by Amey onto Siteman and Capita's agreement also being input onto Siteman. Amey would then produce and submit its interim or final account to Capita via Siteman, who once agreed would input that agreement onto Siteman. The application would then be approved for payment and paid by Cumbria. All three parties would have full visibility of the whole process, both in real-time and after the event.
- 4.7 Siteman allowed works and claims to be input by reference to existing schedule of rate items. In order to allow works to be ordered and processed through Siteman where there was no existing schedule of rate item it was possible for new schedule of rate items to be created, for example for non-standard materials, for bespoke work items, or for specialist subcontractor work.
- 4.8 Siteman did not have the functionality to allow supporting documents, such as record sheets or invoices, to be uploaded onto or stored within it.

4.9 There appears to have been some issue as to Cumbria's access to Siteman after the contract had come to an end. Although this has not been investigated in detail, the correspondence indicates that there were some problems around September 2012, but no evidence to support any argument that Amey deliberately obstructed Cumbria's access to Siteman, and no indication that this was a continuing problem.

4.10 Reference has been made to certain other shared document sources, such as SharePoint and Postbox. More recently, it has been suggested by Amey that Postbox, which is under Cumbria's control, may contain information relevant to the dispute about the number of Better Highways gang days worked by Amey. However there has been no focused search of this data source, either on a joint or individual basis, and Amey has made no formal application in that regard during the course of the pre-trial or trial stages.

(b) **Amey's documents**

4.11 There are 2 separate issues here: the first is Amey's contractual documentation obligations and the second is Amey's litigation disclosure obligations. I will deal with them each in turn.

(c) **Amey's contractual disclosure obligations**

4.12 In closing submissions Cumbria sought to make much of what it contended was Amey's failure to comply with its contractual disclosure obligations. It is important, however, to consider with some care the nature and extent of the individual obligations imposed on Amey under the contract.

4.13 Thus the apparently wide obligations in condition 9.5 of the services agreement are not, on analysis, as wide as might at first sight appear. The condition only applies to requests for reasonable access to relevant premises made within the contract period; it does not entitle Cumbria to demand, after expiry of the contract, documents to be provided by Amey. Furthermore, whilst condition 9.5.2 appears to impose a wide obligation on Amey to allow Cumbria to inspect documents, as does condition 9.5.4 as regards IT systems, there is in my view a difference between allowing Cumbria access to premises to inspect documents in paper or electronic form during the lifetime of the contract (which in fact was requested and did, after some initial delay, occur) and Amey being obliged to provide copies of selected classes of documents on request, in the post-contract and litigation stages, which Amey is not obliged to do under these clauses. Amey also notes that when it offered Cumbria access to SAP to audit its claimed costs for the Lillyhall project, that offer was not taken up by Cumbria.

4.14 The obligation in condition 24 of the services agreement to provide monitoring obligation has no real application to this case, because monitoring is defined by condition 8.4 by reference to specific statutory functions, rather than more widely. The same is true of the obligation in condition 25 of the services agreement to provide information pursuant to the best value duty, and the obligation in condition 42 of the services agreement to make records available for examination in relation to the exercise of Cumbria's audit rights. Cumbria has not advanced a

case to the effect that it has made a formal request under any of these particular conditions which Amey has not complied with.

- 4.15 There is a further obligation in condition 37 of the services agreement, which only applies during the duration of the contract, and there is no evidence relied upon by Cumbria of a formal request being made under this condition.
- 4.16 Cumbria relies upon conditions 43, 45 and 54 of the services agreement. Condition 43 requires Amey to hold securely and properly maintain information and data produced for the purpose of provision of the services, so that it is “accurate, complete and up to date at all times”, and to allow Cumbria’s client officer and his nominees access to “all records, files and data to which this condition applies” during the contract period, including access to obtain copies. I accept that condition 43 does impose a general obligation to maintain information and data, although I do not think that it can apply to each and every document generated by Amey during the course of the contract, and in the absence of an express definition of records information files and data some limitation must be implied to make the contract workable. I also note that the obligation to allow access to records, files and data and to copy such records, files and data does not continue after the end of the contract.
- 4.17 Condition 45.1 provides that all such information and data shall be Amey’s property, save in so far as it is “held or created” on Cumbria’s behalf. Condition 54.3.4 requires Amey, upon expiry of the contract, to deliver up all documents and data still held by it “and which under the terms of the contract are Cumbria’s property”. It follows, of course, that condition 54.3.4 only applies to that limited class of documentation which was held or created on Cumbria’s behalf. Cumbria has not identified which, if any, categories of documents and/or data fall within this description, and it is not obvious that any of the categories of which complaint is made by Cumbria do so.
- 4.18 Condition 45.2 requires Amey to provide to Cumbria any information which it shall “reasonably require during the course of or upon the termination of the contract”. Five particular categories of information falling within this category are identified, the first of which is said to be for “the purpose of reviewing and assessing the contractor’s performance under the contract”. This obligation, whilst wide on first reading, nonetheless has to be read in its context. First it only applies to the provision of information; whilst it could be argued that information might include records and other documents or data, that would be inconsistent with the detailed provisions elsewhere relating to Amey’s obligations in those regards. Second, it only applies during or upon the termination of the contract. Again, whilst it could be argued that this imposes an open ended obligation post termination, that seems to me to be inconsistent with the detailed provisions elsewhere; in my view it must be limited to information reasonably required within a reasonable time from termination.
- 4.19 Cumbria relies on a number of separate provisions in relation to test records. First, Cumbria relies upon clause 29 of the special conditions. However clause 29.3 only obliges Amey to notify Capita of the test “results”, which does not in my view impose an obligation to provide copies of the test records themselves.

- 4.20 Second, Cumbria relies upon clause 28 of the special conditions, which is the clause which imports the Technical Submission and the Quality Plan. It is clear in my view that the specific obligations in clause 28.5 and 28.6 to provide Cumbria and/or Capita with reasonable access and information to enable them to audit Amey's compliance with these documents and these obligations does not extend to a blanket obligation to provide copies of all test records upon request.
- 4.21 Third, Cumbria also relies upon sector scheme 16 to which I have already referred. I accept that this imposes specific obligations on Amey in terms of the production and retention of the records referred to, although it does not in terms require Amey to make copies available to Cumbria or Capita as a separate contractual obligation.
- 4.22 Cumbria also pleads (schedule 3, paragraph 78) reliance on clause 105.2 of the specification for highways works, where there is an obligation to supply to Capita test results from testing scheduled in appendix 1/5 "when requested, within 24 hours of completion of each test". However, it seems to me that this relates to a request made at the time, not a request subsequently made for "all test results".
- 4.23 In conclusion, I do not accept that these contractual provisions can be relied upon by Cumbria as imposing an express obligation on Amey to provide copies of records, in documentary or data form, such as test results, post termination of the contract. Nonetheless, I do accept that these provisions are of considerable relevance when considering what records and information Amey was obliged to produce, to retain and to provide upon request. This is clearly relevant to the scope of Amey's standard disclosure obligation. Indeed, as a general proposition, I would have expected Amey to have been assiduous in relation to the production and retention of relevant information and documents. Thus Amey in its evidence and submissions in this case, in seeking to contest Cumbria's defects counterclaims, has made much of its internal management system, its extensive and robust internal and external audit and quality assurance procedures, and the like.

(d) **Amey's litigation disclosure obligations**

- 4.24 The principal order regarding disclosure was made on 10 July 2014, when it was directed that "disclosure of documents shall be on the standard basis in the first instance. The parties will comply with the TeCSA/TECBAR protocol on e-disclosure. All disclosure shall be in electronic form. The parties shall co-operate and discuss the precise mechanics of the disclosure process including but not limited to the question of custodians, categories, stages, use of a neutral third party electronic repository, keywords, cost sharing and possible limiting of disclosure by reference to sampling of specific issues".
- 4.25 Following extensive discussions between the parties, detailed directions in relation to electronic disclosure were given in the order made on 3 March 2015, including provision for keyword searches and for computer-assisted review. However, provision was also made for disclosure of documents existing only in paper form. In particular, Amey had made it clear to

Cumbria that it had a very substantial number of hard copy documents relating to this contract, which were kept in a storage facility in Carlisle. These included the hard copy documents associated with each works instruction, which were kept in a file created by the local Amey quantity surveying team. This was the subject of a detailed letter from Amey's solicitors to Cumbria's solicitors dated 7 October 2014, in advance of the case management conference listed for the following week, in which it was explained that there were 659 boxes of potentially relevant hard copy documents, together with a further 40 boxes worth of loose documents, approximately 1.4 million pages in total. In summary, Amey's proposal was to scan and electronically disclose the documents which it considered were obviously relevant, which would include the documents in the files relating to works instructions which were in issue, but not - unless Cumbria required it to do so - to disclose other documents which might fall within the scope of standard disclosure but which were considered to be "unlikely to be determinative of any of the matters in dispute". It was said that these documents "include, for example, original copies of timesheets ... the data from which has been recorded in the SAP costing system". Cumbria was offered up to 3 days of supervised access to the storage facility to undertake a review of the material stored there in order to enable it to make a decision as to the extent of the disclosure it required Amey to make.

- 4.26 In my view there is no possible basis for criticism of this letter. It seems to me to represent an extremely sensible proposal for limiting the time and the substantial cost (said in the letter to be approximately £500,000, if all of the hard copy documents had to be scanned and disclosed electronically) of disclosure. That is particularly so in circumstances where Cumbria was fully aware, from its extensive dealings with Amey during the contract, what kinds of document Amey was likely to have relevant to individual works instructions and, hence, what kinds of document it would be interested in seeing. Although there appears to have been subsequent confusion about this on Cumbria's part, it is clear that Amey was not saying that documents such as timesheets had been uploaded onto the SAP system; only that data from those documents had been recorded in the SAP system.
- 4.27 Cumbria accepted the proposal for supervised access and attended the storage facility on 2 separate occasions. Agreement was also reached as to the scope of the scanning and electronic disclosure exercise to be undertaken by Amey.
- 4.28 As regards disclosure of electronic documents, an order was made on 1 July 2015 providing for the parties to agree a protocol for the provision of electronic reports from Amey's databases, including SAP, failing which the court would decide its terms. An order was made on 15 July 2015 whereby Cumbria and its experts were afforded 2 consecutive days of supervised access to each database, including SAP, with provision for further access if required and for Cumbria and its experts to be entitled to make reasonable requests for the provision of information from those databases. It is common ground that the supervised access was provided, but a substantial dispute emerged between the parties as to whether or not Amey was complying with its obligation to provide Cumbria and its experts, particularly Mr McGoldrick, with information reasonably requested from SAP.

- 4.29 As I have already explained, SAP is a proprietary software system, designed for cost reporting and allocation, and used by Amey since 2002 for financial recording and reporting. One of the difficulties in this case is that within Amey there are different levels of understanding of SAP and its capabilities and functions. Thus someone like Mr Smith, who used SAP in the course of performing his role as commercial manager for Amey on this contract, had a reasonable understanding of SAP insofar as he needed to know about it and how to use it, but he had nothing like the same detailed knowledge of SAP as someone like Mr Gerard. Mr Moss, Amey's financial controller to whom I have already referred, appears to have had a better understanding than Mr Smith, but not quite so detailed an understanding as Mr Gerard. One of the difficulties which arose, it appears, is that different individuals within Amey responded at different times to the requests for information made by Cumbria and Mr McGoldrick, with the result that incorrect information was, on occasion, provided to them about what level of information SAP could provide, whether at all or without undue difficulty.
- 4.30 As has become clear during the course of this case, there is a clear distinction between Amey's use of Siteman and its use of SAP. As I have already explained, Amey used Siteman for work valuation purposes. It did not use Siteman for cost recording or reporting. Whilst it would have been possible for Amey to have developed an IT system which was capable of performing both functions, and at one stage Amey gave consideration to doing so, in fact Amey always kept the two systems separate.
- 4.31 Furthermore, it was not the case that all of the information which Amey needed to produce a valuation of work undertaken pursuant to an individual works instruction could be obtained from SAP. Again, it would have been possible for Amey to have developed SAP so as to ensure that this was the case, but for a variety of reasons that never happened.
- 4.32 SAP was used by Amey for a variety of purposes, including payroll, human resources, management accounting and financial analysis. It was capable of being used to record costs to be claimed under a cost reimbursement contract, if configured for such a purpose, and was used by Amey for this purpose in relation to the Lilyhall depot works claim. However, although SAP was used to record information applicable to hourly paid operatives, who were paid on a weekly basis, it was not used in the same way to record information applicable to salaried operatives, who were paid on a monthly basis.
- 4.33 As regards hourly paid operatives, they were required to complete timesheets, which were approved by the relevant supervisor, and transmitted to the area office, where the information was extracted and entered onto SAP. The primary purpose of this was to calculate the pay due to that operative, using the payroll function of SAP. However, that information would also be recorded on SAP as a cost against the relevant works instruction, which would enable the relevant Amey quantity surveyor, when producing the valuation for that works instruction, to obtain that cost information from SAP to include within the valuation. The timesheet itself would not be uploaded onto SAP (even though it would have been possible to save the timesheet as a pdf file and upload that file onto SAP), but instead would remain in hard copy in the relevant works instruction file, to which I have already referred.

- 4.34 In contrast, salaried operatives were not required to complete timesheets for payroll purposes, since they would receive their monthly salary without reference to the number of hours actually worked. It followed that information as to the number of hours worked, whether in total in any given week or allocated by reference to individual works instructions, was not provided to the area office, in any form nor – it follows – could it be uploaded onto SAP. Instead, the salaries paid to such operatives were allocated to one of a number of predetermined overhead codes. Whilst it would have been possible for Amey to have configured SAP so as to allocate monthly operative costs to individual works instructions as well as to specified overhead codes, that is not what Amey ever did.
- 4.35 As regards subcontractor information, the total cost would be entered onto SAP against the relevant works instruction but not, for example, the number of hours worked in the case of a labour only subcontract. However Amey would upload subcontractor invoices onto SAP by saving them as a pdf file, so that they could be accessed if necessary, although Amey would not also upload any payment applications submitted by subcontractors. It follows that the amount of information which could be accessed from SAP would depend on the amount of information available on the invoices, which might not be as detailed as the amount of information available on the payment applications. The same system applied as regards hired in plants and materials.
- 4.36 Within Amey those with the necessary competence and authorisation were able to command SAP to produce a number of different reports, known as “Z” reports, so as to extract information contained within its individual sections, such as the management accounting section or the payroll section. An example relevant to this case is what is known as a ZMIVR report, which would show the numbers of hours worked by named individual hourly paid operatives as recorded against individual works instructions. However, as I have already explained, the same report would not show hours worked by salaried operatives, for the simple reason that such information did not exist in SAP to be searched against.
- 4.37 As a result of the continuing disagreements between the parties as to Amey’s compliance with the protocol in relation to access to SAP (and other databases) Cumbria made an application, which was dealt with on 30 November 2015, whereby it was ordered – with Amey’s agreement – that Amey should provide its monthly payroll records for certain specified periods and should provide further access to SAP. A further order was made at the pre-trial review on 15 December 2015 for Mr McGoldrick to make requests for further SAP reports and for Amey to address those requests. I accept, as Cumbria has submitted, that even if Amey had not agreed to these orders being made, they would have been made by the court anyway. This was on the basis that it was clear from the evidence filed by both parties in relation to the application that those within Amey who had been dealing with Mr McGoldrick’s requests had not previously understood the full functionality of SAP, and it was only as a result of the application being made that further enquiries had been made of those with a better understanding which led to an acceptance that more information could and should have been provided. I also accept Cumbria’s case that from July to December 2015 there was a delay on Amey’s part in providing Cumbria with the full access to information from SAP which Mr McGoldrick, reasonably I am satisfied, was seeking. I would wish to

make it plain, however, that I accept that Amey did not do so because it had an active desire to frustrate Mr McGoldrick from gaining access to information which it knew would prejudice its case. I am satisfied that the true reason was simply that internally Amey did not ask the right questions of the right persons as to what information could be made available through interrogating SAP, although I am also satisfied that there was some element of reluctance to devote a great deal of time and effort to help Mr McGoldrick in finding information which Amey did not think would help one way or another.

- 4.38 I also accept that a result of the delay in providing this information from SAP there was a knock-on delay in Mr McGoldrick being able to provide his supplemental report. I also accept that Mr McGoldrick has relied very heavily upon this information in producing his supplemental report and in addressing many of Amey's claims where there is an issue as to the quantification of those claims. I also accept that if the same level of information had been provided at the outset, Mr McGoldrick would have been able to include the results of his assessment of that information in his principal report, or at least at an earlier stage, and that to some extent time and cost has been unnecessarily duplicated by Cumbria in relation to these aspects of the case. However, for reasons which will be readily apparent when I address these individual claims, I do not consider that if this information had been provided earlier there would have been any realistic prospect of these claims being agreed. I accept that further progress might have been made as regards agreeing figures as figures, although I doubt that it would have made a dramatic difference due to the other reasons for the disagreement between Mr Taft and Mr McGoldrick, summarised in paragraph 3.83 above. These are the fundamental reasons why the quantum experts have been unable in this case to reach more agreement in relation to these claims.
- 4.39 Insofar as contended by Cumbria, I do not accept that Amey can be criticised for not providing the same level of information from SAP at final account stage. In June 2011 Amey had offered Cumbria access to SAP to undertake a sample audit of its claim for additional landfill costs. It appears that Cumbria did not take up this offer, and so far as I am aware has provided no explanation as to why it did not do so. In paragraph 25 of its closing submissions Cumbria says that it "first asked for detailed SAP records in July 2012 at the start of the final account process. They were not provided". I have not been referred to any correspondence from that time in which requests were made for information from SAP in the same or similar terms to the requests made by Mr McGoldrick from July 2015 onwards, although I have been referred to correspondence seeking backup information in relation to some of the claims in more general terms. Cumbria has not attempted to explain on what basis, if any, it had the right to demand this information pursuant to one or more of the relevant provisions of the contract which I have already reviewed after the expiry of the contract period.
- 4.40 Furthermore, insofar as contended by Cumbria, I do not accept that Amey's failure to provide this information earlier impacts on my assessment of the credibility of Amey's claims or its witnesses, for the reasons already given.
- 4.41 Before turning to the hard copy documents, I should also refer briefly to the LMS (Laboratory Management System), which is the document management and retrieval system operated by

AEL (Amey Engineering Laboratory). Mr Felc's evidence was that all test certificates produced by AEL were uploaded onto and stored electronically in the LMS. He confirmed that AEL had been asked to provide these documents in relation to testing undertaken on surfacing work undertaken under this contract, and that it had done so. He confirmed that no other documents relevant to testing, other than the certificates, were also uploaded onto the LMS, because there was no obligation to do so. It appears that AEL was required to store these certificates for at least 6 years. Amey has not suggested that there are test certificates which are, or were, available but which it has not disclosed.

- 4.42 In relation to paper documents, paragraph 47 of Cumbria's closing submissions identifies 3 categories of documents about which particular complaint is made, namely: (1) contract compliance documents; (2) testing records; (3) Better Highways daily record sheets.
- 4.43 As regards contract compliance documents, these are the documents which Cumbria says Amey should have been able to provide which demonstrate compliance with its quality assurance obligations. It appears that Amey did not make any specific reference to these documents in the context of the disclosure process until its letter of 22 December 2015. In that letter it explained that they had not been disclosed as such because they had not been picked up in the keyword search process. Whilst I have no reason to doubt that this was the case this explanation does not, in my view, justify Amey's failure to appreciate that these documents existed and were relevant; indeed as I have already said Amey positively relies in its pleaded case and in its evidence and opening submissions upon its performance of its quality assurance obligations by way of defence to the defects counterclaims. These documents were the subject of a contested application on day 12 of the trial, because Amey wanted to be allowed to rely upon them, whereas Cumbria's stance was that Amey should not be allowed to do so unless it also provided a further and acceptable explanation as to why these, and other potentially relevant documents, had not been identified by the keyword search. I allowed Amey to rely upon a limited class of such documents, but refused permission to rely upon the remainder unless or until an explanation was provided, and either agreement was reached or a further application made by either party. In the event, although as I understand it an explanation was provided, no agreement was reached and no application was made.
- 4.44 The end result, as it appears to me, is that whilst these are documents which were relevant and should have been produced by Amey at an earlier stage, insofar as there is prejudice arising out of their non-production it is prejudice suffered by Amey, who is unable to rely upon these documents to support its case based on its asserted performance of its quality assurance obligations. Insofar as relevant to costs, I will consider submissions at the relevant stage, but on the information currently available to me it does not seem to me that this was a particularly egregious failure, or that significant costs will have been unnecessarily incurred by either party as a result of the failure to produce these documents at an earlier stage.
- 4.45 Turning next to test records, I have already referred to these records in the context of the contractual provisions for testing and for production. As I have said, test certificates were uploaded by AEL onto its LMS. It would appear that the original signed test certificates would have been sent to the Amey area office which had requested them, so that they should

also have been retained within the relevant works instruction file. It would also appear that documentation relevant to the instructions sent by Amey to AEL, including invoices and the like, should also have been retained by the Amey area office. It seems that these testing records were not produced until October 2015; see paragraph 108 of Mr Robinson's second witness statement. These test records, which relate to the schedule 3 surfacing testing claim, are best addressed when I deal with that substantive claim, however in summary I accept that Amey did indeed fail to disclose, at least in accordance with the timetable for disclosure, test records in the number that it ought to have been able to produce, which is reflected in my substantive decision in relation to schedule 3, the testing claim.

- 4.46 More widely, however, Cumbria also complains, seemingly with justification, of Amey's failure to make disclosure of the quality assurance documents required by sector scheme 16, going above and beyond the specific testing records required by appendix 1/5, in particular the inspection and testing plans, the road works inspection sheets, the dipping record sheets, the delivery record sheets and the material reconciliation sheets. These documents are again relevant to Cumbria's schedule 3 surfacing claim, and again I will refer to them at that stage, but again in summary I accept that Amey has failed to disclose all of the documents which it ought to have been able to disclose, and that I have taken this into account to the extent I consider justified in my assessment of the substantive schedule 3 claims.
- 4.47 Turning to documents relevant to the Better Highways claims, it is common ground that the individual works instructions in relation to Better Highways, as with all other works instructions, were issued electronically on Siteman and were also issued in paper form, with any accompanying paper attachments. The paper form would form the starting point for Amey to create a works instruction pack, which the Amey supervisor would issue to the works gang who were to do the work in question.
- 4.48 As works were undertaken the Amey supervisor would produce daily record sheets. These were completed on a standard form, with provision to record the date in question, the gang members working that day, the start and end times for plant and operatives, and the materials used; the intention was that they should be signed by the supervisor once completed. It is clear that they were not always fully completed or signed by the supervisor, but in general terms they constitute a reasonable record of what was done on a particular day. In the same way as with the timesheets they were not uploaded onto nor stored on Siteman nor on SAP and remained in hard copy form only. They were passed by the Amey supervisor to the Amey local quantity surveyor, who would use them to complete and submit monthly and final payment applications in relation to that works instruction to Capita or, subsequently, Cumbria. The payment applications would, as I have said, be submitted electronically on Siteman but, as I accept, I am satisfied that there were regular meetings between the local Amey quantity surveyor and the local Capita or Cumbria area inspector to discuss live works instructions and to agree or seek to resolve outstanding or disputed payment applications, in the course of which these documents would be made available and discussed as necessary.
- 4.49 I have already referred to the timesheets (also referred to as allocation sheets) completed by the hourly paid operatives. These were also required to be signed by the supervisors and

submitted to the area quantity surveyor. I have already explained that the data would be extracted and input onto SAP, but the timesheets themselves were kept only in paper format. I have also referred to the fact that since monthly paid operatives were not required to produce timesheets, no timesheets relating to time spent by those monthly operatives in relation to Better Highways works instructions or, more widely, any works instructions, are available to be disclosed. I have also already referred to records relating to subcontract labour and hired in plant and materials, where paper records should also exist, as well as those invoices which were uploaded onto SAP. I should also mention, however, that no equivalent documents were generated for the use of Amey owned plant.

- 4.50 I do accept that from July 2012 Cumbria was making extensive requests for back-up supporting documents to support the Better Highways claims. I also accept that there is no evidence that Amey ever responded in a constructive way to these requests. However this must be seen in the context that Amey had, I am satisfied as I find later, been perfectly willing to provide back-up supporting documents at the time it was making its monthly payment applications for Better Highways. Cumbria did not explain why it needed all of this information, in circumstances where the only live dispute at the time seemed to be as to the appropriate Better Highways rate, and I have considerable sympathy for Amey on the basis that this request for what seems to have been a disproportionate quantity of documentation was being used as a stonewalling tactic rather than because it was strictly necessary. Furthermore, what is remarkable is that if Cumbria had always had a genuine desire to see all of the information in hard copy it did not take up the offer of physical inspection facilities with alacrity once it was offered as part of the disclosure exercise, to which I now turn.
- 4.51 I have already referred to Amey's proposals for electronic disclosure of hard copy documents. It appears that the documents thus disclosed were scanned and uploaded onto an IT system known as Relativity by a specialist IT subcontractor engaged by Amey for that purpose. I was told by Amey during the course of the trial that it would appear that after scanning the hard copy documents were not reassembled into the same physical state as they were in before scanning, which has subsequently caused difficulties when attempts have been made to identify hard copy documents relating to individual works instructions. That is, on any view, a regrettable state of affairs.
- 4.52 It is apparent that at no stage during the disclosure process did Amey raise any objection to disclosing or producing documents in paper form relevant to the Better Highways works instructions, nor did it ever positively state or represent that these documents could be obtained from SAP. Mr Taft was asked in cross-examination about where he had located certain daily record sheets to which he had made reference in his most recent supplemental report. He said that he had located them through Relativity, with assistance from Amey. This provoked some debate, because Cumbria's position was that it had been unable to locate these sheets through interrogating Relativity, or to locate other documentation relevant to works instructions the subject of its defects counterclaims, even though one reason for uploading these documents onto that platform was to provide optical character recognition (OCR), which would enable them to be searched electronically. It emerged, from further investigations undertaken by both parties, that there was a discrepancy between the version of

the electronic documents being used by Amey and that used by Cumbria. It transpired, from further investigations, that Amey had provided Cumbria with the same version of the electronic documents, but that for reasons which were nothing to do with Amey that version had not been used by Cumbria, who had not appreciated that the version it was using did not have the same OCR coding. Once this was discovered, Cumbria asked Amey to supply a further version of the electronic documents, which was provided.

- 4.53 Amey’s position is that this provided the simple explanation as to why Cumbria had been unable to identify documents which Amey had been able to identify, whereas Cumbria’s position is that this does not fully explain the problems which it had experienced. It was agreed that the parties should set out their respective positions in writing, and seek to reach agreement, in default of which the court would be asked to determine the causes and responsibility for these problems, if necessary after hearing further evidence on the point (which in the event neither party asked the court to do) or with the benefit of the issue being addressed in closing submissions.
- 4.54 Amey set out its position in its letter of 28 April 2016. In particular, it confirmed that all works instruction packs relating to Better Highways works had been scanned and disclosed in May 2015, and that at Cumbria’s request further documents had been scanned and disclosed, predominantly in relation to the defects counterclaims. It also referred to the fact that Cumbria had been allowed to undertake physical inspection of all hard copy documents in their pre-scanned and, hence, “pristine” state. It explained that it had been able to locate via Relativity search a substantial proportion of the documentation relevant to the defects counterclaims which Cumbria said that it could not obtain through that method, and sought to demonstrate that by reference to 30 individual works instructions identified by Mrs Pigott in the course of cross-examination.
- 4.55 Cumbria set out its response in its letter of 3 May 2016. It asked Amey to provide a further explanation about how it had been able to provide the documentation relevant to the defects counterclaims in relation to the 30 individual works instructions through a Relativity search alone. It observed that Amey itself, when producing record sheets relevant to the 35 Better Highways works instructions which Mr Smith had referred to in his third witness statement, had acknowledged that it had been necessary to “rescan” the documentation, given what it had said were the “limited searches which can be applied to scanned material”. In its subsequent letter of 10 May 2016 Cumbria also asserted that its difficulties in locating the Better Highways record sheets were unrelated to any difficulties with the OCR coding. It also made the point that given the difficulties with re-assembling the works instruction files in hard copy, this problem could not now be overcome by Amey giving Cumbria access to the hard copy files at the storage facility in Carlisle.
- 4.56 Amey responded to this correspondence in its letters of 12 and 13 May 2016. It made the following points:
- (1) It observed that the issues raised by Cumbria were not issues about Amey’s failure to disclose these documents in the first place, as opposed to complaints about the ease of

searching for these documents on Relativity or, now, locating them by searching the original hard copy documents. This seems to me to be a well-made point, and one which it is important I should not lose sight of when considering Cumbria's complaints.

- (2) It stated that it had been able to obtain the documents relevant to the 30 patching and surfacing works instructions through a search against Relativity, and explained how it had been done. Its explanation seems to me to be perfectly satisfactory. Although in closing submissions Cumbria referred to the difficulties of obtaining all documents by a straightforward search against Relativity, in my view that is more a complaint about the utility of the OCR coding applied, but as I have said there is no basis for a complaint that Amey was obliged to provide Cumbria with anything more than what had been provided in accordance with the disclosure orders made.
- (3) It stated that electronic disclosure had been carried out in accordance with the agreed protocol, which was that proposed by Cumbria's IT consultants. Again, this seems to me to be a well-made point.
- (4) It said that it would provide Cumbria with the documentary identity codes used by Amey to enable Cumbria to search for the relevant Better Highways daily record sheets. It appears that this information was duly provided, albeit after some delay, but again it seems to me that Cumbria is not entitled to complain about Amey's prior failure to provide Cumbria with information which it was not required to provide under the terms of the disclosure orders or agreed protocol, being information which it had produced itself for its own internal purposes.
- (5) It accepted that it had needed to re-scan information in relation to the 35 Better Highways works instructions. It would appear that the problem lies in the difficulty in using the OCR coding in conducting searches on Relativity which, as I have said, is not a matter about which Cumbria can legitimately complain in the context of Amey's performance of its disclosure duties and its obligations under the protocol.
- (6) Whilst acknowledging the difficulties in relation to the hard copy documents as they now exist, it nonetheless offered Cumbria the facility to inspect if it so wished.
- (7) It made the overriding point that it had been open to Cumbria to have conducted further and more detailed searches for documents relevant to its case on Better Highways and defects, much earlier than it had done, and both against Relativity and by physical inspection of hard copy documents. It said that it was clear that Cumbria had not done so because it had been concentrating all its attention on SAP. It said that it only had itself to blame for that decision. In my view there is a significant element of truth in this criticism. Cumbria began raising these issues at too late a stage, in the course of the trial itself, when they could and should have been raised much earlier, once the primary disclosure process had been completed. It appears that Cumbria assumed, wrongly and not as a result of any incorrect information provided by Amey, that it would be able to obtain information relevant to Better Highways from SAP, and it was only once it was

appreciated that this was not the case that it turned its attention to Relativity and the hard copy documents. As against this, however, it can be said by Cumbria that if Amey had responded more quickly to its requests for information from SAP the limitations of SAP would have become apparent more quickly than they did. It seems to me that both parties must share some of the blame for this state of affairs, but that the major element of blame rests with Cumbria.

4.57 In summary, it appears to me that Cumbria cannot properly complain if the OCR coding on Relativity does not allow it to conduct all of the searches which it would wish to do. That is seeking to impose on Amey an obligation which goes above and beyond its disclosure obligations in this case. It also seems to me that Cumbria is seeking to impose an obligation on Amey not simply to disclose documentation relevant to its Better Highways claim, but to collate that information and provide it to Cumbria in a manner which allows Cumbria and its advisers to access and/or interrogate it in the way they find most convenient. Again that seems to me to be going too far. The question as to whether or not Amey has disclosed all of the documentation which it ought to have been able to provide, both in relation to its Better Highways claims, and in relation to Cumbria's defects counterclaims, is a matter to be addressed when dealing with those substantive claims. Insofar however as Cumbria is inviting me to make a specific finding that Amey is guilty of a serious failure to comply with its disclosure obligations, I am not satisfied that this complaint is made out.

5 **Local Area Overhead**

- 5.1 It is convenient to address the question of local area overhead at this stage, because it is relevant to a number of the individual claims. Local area overhead is a term used by Amey in this case to refer to its divisional overheads, namely the overheads incurred by or attributed to Amey's operation in Cumbria. It is to be distinguished from the head office overhead, namely the overheads incurred by or attributed to Amey's head office in Oxford, and Amey's profit (or margin).
- 5.2 It is relevant to this case because in relation to some of its claims Amey has added an uplift of 37.93% as a local area overhead on-cost to its direct costs. According to Cumbria in its closing submissions, in relation to claims 3, 4, 6, 14 and 28 some £3,849,355.55 of the total of £4,868,525.08 claimed under these heads is comprised of local area overhead, so that it is a substantial component of these claims.
- 5.3 It is important to note, however, that although this figure is said to be Amey's local area overhead, in fact it includes local area overhead, head office overhead and profit. Mr Taft says that the net figure for local area overhead, properly so called, is in fact only 16.26%, whereas in his assessment the total of all overhead and profit is 36.37%, which is what is now claimed by Amey.
- 5.4 It would appear, therefore, that the importance of the distinction between local area overhead on the one hand, and head office overhead and margin on the other, is really only of importance in relation to the Lillyhall claim, because of the particular agreement reached in

relation to that claim, namely that it was a cost plus contract, where the percentage uplift on cost was agreed to be 15%. The debate between the parties in relation to the Lillyhall claim is whether or not the 15% was Amey's allowance for head office overhead and profit, as Amey contends, or Amey's allowance for all overhead and profit, including local area overhead, as Cumbria contends.

- 5.5 Contrary to the impression given in his witness statement, Mr Rhoden confirmed in evidence that at the time of tender no distinction was drawn, either internally within Amey or externally in its dealings with Cumbria, between local area overhead and head office overhead. Furthermore, it is not a distinction to be found in the contract. There is no specific reference to local area overhead or to head office overhead in the contract; as I have said the only relevant reference is in part 2 of the contract data, where Amey stated that its fee percentage was 9%, that being the fee to be added to actual cost in relation to compensation events.
- 5.6 Although in paragraph 23 of his witness statement Mr Rhoden had said that local overhead formed 35.8% of envisaged turnover, that is in fact a percentage which includes both local and head office overhead, as well as Amey's margin. As Mr Rhoden explained, it is also the case that there was no blanket application of a specified percentage for local overhead in the tender; instead a varying percentage uplift was included for the individual elements within the tender reflecting the fact, as I have already said, that Amey was required to offer a specified discount from the existing rates charged by the DLO.
- 5.7 In his oral evidence Mr Smith accepted that there was no established dividing line between what was included within local area overhead as opposed to head office overhead. For example, there may be room for debate as to whether the cost of providing an IT system, the cost of legal services, the cost of providing insurance and the costs of the tender process should be allocated to 1 or the other. This is something about which the experts are unable to agree, not surprisingly because much will depend on how a particular organisation such as Amey chooses to order, pay for and internally charge for or allocate these kinds of costs, i.e. whether through head or local office.
- 5.8 In my view, if a claim falls to be valued as a compensation event under clause 49.1.1, there would be no basis for including any additional claim for local area overhead. That is because the 9% fee will be added to the actual cost, where the experts have agreed that the 9% fee represents 5.5% head office overhead and 3.5% profit.
- 5.9 The actual cost is assessed by reference to the SCC, which would include the people costs referred to in paragraph 1, together with a 23% working area overhead uplift on those people costs. Mr Taft says, and Mr McGoldrick does not appear to disagree, that the people costs would include the costs of supervisors and managers. This would appear to be correct, since the definition of the "working areas" includes the sites and the associated depot and office areas.
- 5.10 In contrast, if the claim is to be treated as a change control event under schedule 6 of the services agreement then, as I have already said, Amey may or may not, depending upon the

circumstances, be entitled to recover an additional sum for overheads and profit in addition to its direct costs. If so, that is when the question arises: is Amey entitled to add local area overhead to its direct costs and, if so, in what amount?

- 5.11 The experts consider this question in their reports and in their second joint statement. It is common ground, as I have already said, that there is no express reference to local area overhead in the contract. Mr Taft says that since local area overhead is included within the individual rates in the schedule of rates, there is no need to refer to it expressly. It is clear from Mr Rhoden's evidence, and the documentary evidence disclosed by Amey in support of its tender, that its allowance for overhead and profit was included both within its preliminary items and its schedule of rates items, in the normal way, and I accept that in those circumstances there would be no reason for Amey to separate it out at in its tender documentation, unless Cumbria had specifically required it to do so, which it did not.
- 5.12 Both Mr Taft and Mr McGoldrick agree that the allowance for overhead and profit within the tender is not limited to local area overhead, but includes head office overhead and margin. They disagree as to the net figure for local area overhead; Mr Taft says 16.26%, whereas Mr McGoldrick says 12.72%. There is a similar disagreement as to what an interrogation of SAP reveals to be the local area overhead percentage; Mr Taft says 17.6%, whereas Mr McGoldrick says 6.7%.
- 5.13 One substantial disagreement relates to the capital investment of £8 million. In its internal tender breakdown Amey included an allowance within its overhead and profit figure by way of recoupment of the £8 million lump sum it was required to pay Cumbria as part of the contract. Cumbria argues that since Amey's internal tender breakdown shows that once the estimated contract value is achieved that lump sum is recouped, there would be no basis for adding the equivalent allowance to any subsequent claim. In my view that argument is sound, if the claim being made is limited to overheads, as opposed to overheads and profit, because once the estimated contract value is achieved there is no further overhead attributable to the initial lump sum allowance. If, however, profit is to be taken into account, there is no reason why it should not be allowed, on the basis that Amey's overall tender analysis would reflect the fact that once the initial lump sum has been recouped, Amey will earn a greater profit percentage on all further work undertaken.
- 5.14 Amey's position in its closing submissions is that the starting point is the tender figure, that the documents produced by it demonstrate how the percentage figure referred to by Mr Taft was arrived at and, importantly, that this excludes the items which were the subject of specific provision in the pricing schedule, such as the winter service basic facility, so that it is an accurate reflection of the spread or overhead and profit within the schedule of rates.
- 5.15 Cumbria's position in its closing submissions is that this is an entirely artificial figure which appeared for the first time in Amey's pre-action protocol claim in December 2012. Whilst I accept that Cumbria is right to say that there was no contemporaneous reference to this, nonetheless it is clearly the case, as I have found and as Cumbria must have known anyway, that Amey's tendered rates would have included an element for overheads and profit, albeit

that it would not have known the precise figure for uplifts included in the individual rates for overheads and profit.

- 5.16 Cumbria also contends that certain specified items should be removed from the figure, insofar as they are already included separately in the preliminaries. As I have said, Mr Taft accepts this as a principle, and has already done so in reaching the revised percentage figure which he did. The argument therefore was whether or not the further items which Mr McGoldrick considered ought to have been included within the preliminaries should also be removed. In general, I am satisfied that Mr Taft was correct in drawing the line where he did. It seems to me that Mr McGoldrick was approaching the question from the wrong viewpoint, namely what he would have expected to be the position under a typical building contract, instead of focusing on what the position was in the specific circumstances of this contract and this tender build up. Whilst I accept that some items are on the dividing line, they are relatively minor, and on balance I prefer Mr Taft's opinion in relation to them.
- 5.17 Moreover, the distinction between what are properly described as local area overhead costs and head office overhead costs is only relevant if and to the extent that Cumbria contended that any claim should be built up on the basis of actual costs, together with genuine local area overhead costs, and together also with a 9% uplift for head office overhead and profit, which should be deemed to include all costs which Mr McGoldrick contends should form part of the head office overhead costs. If and insofar as this is an issue, on balance I prefer Mr Taft's view that in this case these costs were reasonably treated as contract specific by Amey, and apportioned to the Cumbria contract, and thus should be treated as divisional as opposed to head office costs.
- 5.18 Cumbria also contends that there should be no blanket application of the local area overhead rate. It argues that the starting point should be to enquire whether or not any overhead costs have been incurred and, if so, to ascertain them. I accept that this is something which may, depending on the facts, be appropriate in an individual case. I also accept that in an individual case I should consider whether or not it is proper to allow head office overhead and profit as well as local area overhead. I also agree that the court should consider whether or not, if the claim is limited to one area of work, the rate to be applied ought to be the rate applied to the individual work item in the tender breakdown. For example, it is common ground that the markup applied to patching work was only 12%, as opposed for example to the 56% markup applied to road marking works. If, therefore, a claim related solely to patching work, I accept that there would be no obvious basis for allowing Amey to recover in excess of 12% by way of overhead and profit.
- 5.19 Nonetheless I do, as I have made clear, accept and adopt Mr Taft's revised calculations in relation to this aspect of the claim, both in relation to all overhead and profit, and in relation to local area overhead. I prefer Mr Taft's analysis of the costs as revealed on SAP to those of Mr McGoldrick, and consider that this confirms me in my assessment of the appropriate figures. It also means that if, as to which there was no specific argument, the correct approach is to add the actual local area overhead and the contract rate for head office overhead and

profit, as opposed to the tender allowance for both, then it shows that there is little difference of any substance between the two, on the basis of Mr Taft's assessment.

6. **Chronology of relevant events**

- 6.1 This section is intended to provide only a bare summary of events which although material are not of key significance, and to provide some more detail as regards the events of key significance to this case. Given that the contract lasted 7 years, it does not pretend to be anything like exhaustive. It is convenient to refer to events by reference to the contract years, thus year 1 is the year beginning 1 April 2005 and ending 31 March 2006, and the final year is year 7.
- 6.2 Although there were some initial teething problems and some inevitable tensions in the first few years, it appears that in that period all 3 parties were working in a reasonably co-operative manner, all wishing to see the partnership succeed, so that such disputes as arose appear to have been resolved before serious problems developed.
- 6.3 In November 2007 there was a change to the highways response teams, which were divided into area highways teams, emergency response teams and permanent repairs teams. The area highways teams were to undertake the maintenance and minor repair works; the role of the emergency response teams is self-explanatory; the permanent repairs teams were to follow on from the other 2 teams undertaking, as their name suggests, permanent repairs where needed. The rationale for this change was the perception that the maintenance and minor repair works were suffering because the highways response teams were spending too much time responding to emergency call out works. This change was not the subject of the formal change procedure, and there was no amendment to the existing contract documents or to the schedule of rates, although it appears that a higher rate was agreed for the emergency response teams because they were providing a 24 hour response function.
- 6.4 In April 2008 Amey was instructed by the formal change procedure to provide 24 highways stewards, each assigned to specified areas. The change request attached to it a new clause 3303AR and a new appendix 39/5. The function of the highways stewards was to provide a link between the local communities and the partnership in helping to identify problems, as well as undertaking small scale maintenance and other jobs in their area, working closely with the existing area highways teams and other teams and with the local Capita inspectors. Thus there was a considerable overlap between the work of the area highways teams and the work of the highways stewards. A rate of £41,300 per annum per highways steward, inclusive of overhead and profit, was agreed. It appears from the contemporaneous documentary evidence and the witness evidence that the highways stewards were introduced as a separate and distinct part of the overall highways maintenance service for three main reasons: first because their role was different to that of the highways response teams, principally because they were individuals working alone with a significant inspection as well as a maintenance element, as opposed to 2 men teams working on small scale maintenance and minor works; second because there was a significant element of public relations involved in the decision to

introduce highways stewards; and third because a separate budget had been made available for them.

- 6.5 Thus from April 2008 onwards the new arrangement involved there being 12 2 man area highways teams, emergency response teams and permanent repairs teams, together with 24 highways stewards and, thus, a total of 48 operatives working on maintenance and minor repairs including emergency works as well, of course, as the planned maintenance gangs.
- 6.6 In around April 2008 a widespread failure of surface dressing beds was identified. A joint report into the cause of the problem was produced by Mr Felc and Mr O'Farrell. An agreement was reached in relation to remedial works together with a division of the cost of those works, which was to be shared between all 3 members of the partnership. Amey agreed to undertake these remedial works at an agreed cost, which it agreed not to charge Cumbria, representing its agreed contribution to the problem. This shows, as Amey submits, that the contractual procedure whereby problems which could not be resolved at local level were escalated and resolved at higher level, worked perfectly well at this stage. This agreement is also relevant to one part of Cumbria's schedule 7 claims.
- 6.7 In April 2008 there were also 2 changes in the legislation. The first was a change to the vehicle excise duty legislation, under which vehicles used for road construction purposes were no longer allowed to make use of the less expensive "red diesel"; the second was a change to the landfill tax legislation, imposing increases in the rates of landfill tax. It was agreed that both of these changes comprised relevant changes of law, to which the change control procedure in schedule 6 of the services agreement applied. After some delay, Cumbria issued change orders to set in process the procedure for agreeing the financial consequences of these changes but, remarkably, no agreement was reached prior to the end of the contract in March 2012. Amey's position is that Cumbria was responsible for delaying the agreements and, thus, the payment of these claims. Cumbria's position is that it was perfectly willing to agree and to pay these claims, but only on the basis that Amey was able to provide proper substantiation, which it continually failed to do.
- 6.8 The documentary evidence does show however that by late 2009 it is clear that Cumbria was unpleasantly surprised by Amey's valuation of these claims, and adopted a strategy of delay to seek to ensure that they did not fall due for payment until the following financial year. The evidence also shows that the financial pressures on the highways budget in the following financial year led to pressure being applied to those responsible to try and avoid ways of having to commit to making substantial lump sum payments. Various discussions ensued with the aim of seeking to spread out the payment by incorporating increases into the schedule of rates, but it is clear that Cumbria was in no hurry to agree anything. As a result of pressure being applied by Amey, in May 2010 Cumbria agreed to make some interim payments on account and in June 2010 Cumbria agreed to instruct Capita to value the change orders, but again delay ensued for which Cumbria was again responsible. It appears clear that by this time the financial pressures associated with the implementation of the Better Highways projects had led to these claims being left on the back burner and nothing positive was achieved subsequently. Mr John Robinson, who had been responsible for dealing with this on

behalf of Cumbria, accepted that what had happened was “regrettable”; Amey puts its higher and contends that it was “shameful”. In my view it was more than just regrettable, it was wholly unacceptable for any organisation, let alone a local authority, in the context of dealing with a contractor under a partnering type contract; there is no need for me to express an opinion as to whether or not it was shameful.

- 6.9 Nonetheless, it is clear that these claims have to be assessed on their merits. As I have already said when reviewing Mr Forster’s evidence I do not accept that there was any agreement to the effect that there was no need for Amey to correlate and maintain the relevant documentation necessary to support these claims on the basis that they would all be wrapped up into new rates without the need to provide proper substantiation.
- 6.10 Beginning in late 2008, there was a process of change at senior level within Cumbria, resulting in Ms Fallon and Mr Moss replacing the existing executives in charge of the highways department. It is also clear that Cumbria was experiencing the problem of seeking to address widespread dissatisfaction with the state of Cumbria’s roads in the context of a severely straitened budgetary environment. It appears clear that the new management within Cumbria was less willing to work with Amey and Capita in the contract partnership spirit, which they appear to have regarded as enabling Amey and Capita to produce a sub-optimal performance with no come-back. The senior partnership board was an early casualty of this new approach. Furthermore, it is clear that the relationship between Mr Moss and Mr Forster, who had been brought in by Amey as the new service director at around the same time, was not as positive as the relationship which had existed between their predecessors.
- 6.11 In January 2009 Capita produced a report referring to the current position as regards outstanding defects lists and Amey’s remedial works programme across Cumbria. It is clear that there was a recognition that there needed to be an improvement, and an agreement was reached as to how this was to be addressed, with Mr Foote of Amey and Ms Sykes of Capita to be authorised to act as the respective representatives to resolve the existing defects and to produce and agree a procedure for the future. They produced a draft procedure, which envisaged that any defects not resolved by local agreement should be the subject of a joint inspection, after which they would (if necessary) be the subject of a defect sheet to be issued by Capita, and inclusion onto a spreadsheet of outstanding remedial works, also known as a defects register, which was to be monitored at local area partnership meetings. Any outstanding disagreements would be escalated for resolution, and if any defects remained unremedied the cost of remedial works would be deducted in accordance with the contract terms.
- 6.12 This draft was approved and introduced in July 2009. The impression that I receive from the contemporaneous documentation is that whilst not every problem was resolved to Cumbria and Capita’s complete satisfaction within the timescale that they would have wished, overall things were working reasonably well. I am quite satisfied that the picture is far from being one of endemic non-performance by Amey of its workmanship and remedial obligations, whether actual or perceived.

- 6.13 There was however a more significant problem in relation to pre-surface dressing patching works undertaken in the Allerdale area in summer 2008, in anticipation of surfacing works being carried out in 2009. As well as complaints about certain specific patches, there was a more general concern on Capita's side that the patches had been laid with insufficient thickness. Capita staff such as Mr Harrison believed that this gave rise to a risk of early failure, and sought to persuade their superiors to take forceful action. However Mr John Robinson of Cumbria became involved, and reached an agreement for a process of joint inspections, following which agreed defects would be remedied, whereas insufficient thickness would be dealt with as a measurement issue rather than a defect issue. It is clear that Mr Harrison and others were aggrieved at what they saw as a failure by senior management within Cumbria and Capita to take on Amey. The evidence indicates that whilst defects were remedied the thickness issue was kicked into the long grass. By summer 2009 the surface dressing programme was underway, with some complaints being made about chipping streaking, and a debate ensuing as to whether or not this was Amey's responsibility. There is no indication, however, that this was either escalated in accordance with the new agreed procedure or that Cumbria sought to make deductions to reflect the cost of remedying these alleged defects.
- 6.14 In the meantime, Ms Fallon had decided that the systems thinking review of the services which Cumbria had decided to undertake, using management consultants known as Vanguard, should extend to highways maintenance services. In August 2009 the process began, then referred to as Project Customer Care, subsequently being rebranded as Better Highways. It was anticipated that the project would take 6 months, comprising an initial investigation followed by a re-design of the service in accordance with the findings. It was agreed that members of Cumbria, Capita and Amey should be seconded to the project team, in order to ensure that each member of the partnership was fully involved in the discussions and the service re-design. It is clear that Amey was asked, and agreed, to provide its secondees at its own expense, although Amey's case is that in consequence of the extension of the project, and the enlargement of those involved on its part, it is now entitled to payment for their services over the extended period. This is its item 13 (Better Highways trial support) claim.
- 6.15 In October 2009 Cumbria announced that the Capita contract would not be renewed or extended, so that it would expire at the end of January 2011. Whilst no similar announcement was made in relation to the Amey contract, it is clear in my judgment from an analysis of the contemporaneous documentation that by that time Cumbria's Cabinet had taken a clear decision in principle that Cumbria was unlikely to exercise the option to extend Amey's contract for up to 3 years, as was permitted under the contract. It is clear that the reason for this was that Cumbria envisaged that it could make significant financial savings from implementing the results of the Vanguard review once they were in a position to undertake the highways maintenance service under a new procurement regime. It is also clear that Cumbria recognised that it was in its commercial interests not to make Amey aware that this decision had already been taken in principle, and to continue discussions with Amey on the basis that they were willing to consider an extension. Amey was very keen to obtain a contract extension, regarding this as an extremely profitable and high profile contract, and thus was willing to co-operate in relation to this project, even though there was an element of

apprehension as to its consequences so far as the profitability of Amey's contract was concerned.

- 6.16 In November 2009 an experimental trial of Better Highways began in the Eden area. At this stage nothing was set in stone; indeed it was an intrinsic part of Vanguard's strategy that there should be a process of continual innovation. From a contractual perspective a works instruction, numbered E300615, was issued to formalise Amey's provision of operatives to man this trial process. This work was ordered and paid on a dayworks rate basis. The explanation, according to Mr Robinson, was that this was agreed as an interim measure pending the introduction of the Better Highways scheme in its final iteration, and on the basis that until that happened neither Cumbria nor Amey was not in a position to agree a new rate going forwards. This works instruction encompassed the Better Highways work undertaken in the Eden area through to the end of the financial year.
- 6.17 The trial period had to be extended well into 2010 due to a number of problems, initially the disruption to the highways maintenance services due to the poor weather over the winter of 2009/2010, and the resulting heavy flooding in the Cockermouth area, but subsequently due to other concerns, including scepticism from some of the elected members and local area committees and concerns about the impact of introducing Better Highways on Cumbria's ability to defend itself against tripping and other highways maintenance related claims. Capita was also concerned about how Better Highways would impact on its role and individuals within Capita were naturally concerned about whether if Better Highways was introduced that would affect their prospects of being taken on again by Cumbria once the Capita contract came to an end. Amey, whilst ostensibly supportive for its own reasons, was also keen to ensure that contractual, payment and staffing issues were agreed before the Better Highways projects proceeded to roll out and implementation.
- 6.18 As a result of the delay it was necessary to issue a further works instruction to cover the Better Highways trial in the Eden area for the new financial year and works instruction F300087 was duly issued. It appears from the contemporaneous documentation and the witness evidence that it instructed Amey on the same dayworks basis although the instruction itself is a little unclear because it appears to have been amended subsequently but in a way which does not clearly differentiate between then original and the amended form. It also appears to have been superseded from August 2010, when the roll-out began and when Cumbria began to issue monthly works instructions for the separate areas for its own internal accounting purposes, and it was subsequently never agreed or finalised, so that it forms part of the Better Highways items in dispute in this case.
- 6.19 By summer 2010 the discussions about a contract extension were still continuing, with Amey being sufficiently keen to obtain an extension that it was prepared to offer a 9% discount from the existing rates across the board. At the same time however two problems with the quality of Amey's works emerged. The first was a problem with the quality of Amey's surface dressing works, which led to a notice of dispute being issued, but which was followed by a meeting at which a measure of agreement was reached as to the way forwards. Again this forms part of Cumbria's schedule 7 claim. The second problem, which at the time seemed

more serious, was that it emerged from investigations in Allerdale that Amey had been using an incorrect grade of bitumen, known as 190 pen, in its patches. Although this grade of bitumen was not permitted by the contract it had historically been used by the Cumbria operatives who had transferred over to Amey and who preferred working with it due to its greater plasticity. It appears that Amey senior staff were unaware of this as a problem. Cumbria involved Mr O'Farrell was involved in his then role as a Capita consultant to provide a preliminary opinion about the use of 190 pen, and his provisional view was that it might be a serious matter because it might prove detrimental to the quality of the pavement.

- 6.20 In fairness to Amey, as soon as Mr Collins was notified of the situation he investigated it, accepted that it was unacceptable, and took immediate action to prevent it from continuing. He also commissioned evidence to the effect that its use was not detrimental to the quality of the pavement. However it appears that Mr Harrison and others in Allerdale were not convinced by this explanation and reported their concerns to a local Cumbria elected member who in turn raised his concerns at council level, which led to a decision to commission an investigation by Cumbria's audit department. Following further investigations it became clear to Cumbria that it could not establish that the use of 190 pen, which was undoubtedly in my view a breach of contract by Amey, had led to any problem, actual or latent, with the patches laid using 190 pen. However it was the result of those investigations which led, on Cumbria's case, to the discovery of other defects resulting in its substantial extrapolated defects counterclaims.
- 6.21 In August 2010 the roll-out of Better Highways began in Eden, the intention being to extend Better Highways to all areas by the end of the year. Cumbria provided a general briefing pack, widely disseminated, entitled "what you need to know", as well as a detailed information pack for the area teams. Both are to similar effect. In short, what was being proposed was what was described as a new delivery model for reactive maintenance, which involved disbanding the area highways teams, emergency response teams and permanent repairs teams and the highways stewards and replacing them with Better Highways teams. The Better Highways teams were each to be responsible for a specified area, where they were to undertake a "find and fix" service, locating areas in need of attention through a variety of different means, including regular patrols, liaison with the general public and community representatives as well as through Amey's county-wide defect reporting facility, known as the operational control room (OCR) as well as through Capita's area inspectors. In the same way as the previous teams, they were to be 2 man teams, but with support from an Amey area steward. The "fix" element was to be undertaken using a "right first time" approach, conducting an immediate permanent repair where practicable, and if not prioritising and programming for later repair. The intention was to give the operatives on the job greater control and responsibility, so that as opposed to undertaking what was essentially a reactive service on instructions from Capita, they would have greater responsibility for finding or locating the defect, deciding what permanent repair was appropriate, and undertaking it there and then, and only if not practicable to do so undertaking a temporary repair and programming a permanent repair.

- 6.22 The proposal was that there should be 30 separate areas each with its own Better Highways team. The initial proposal had been for 64 areas and 64 teams, but it was considered that this would be unaffordable. In the end there were 32 separate teams. The area stewards were to provide logistical support and technical advice, and there was also to be an Amey area leader with overall responsibility for delivery of the Better Highways service in the particular area. The proposal was that there would be 1 area steward responsible for each 3 teams, and 1 area leader responsible for each 9 teams, thus for every 9 teams and 18 operatives there would be 4 supervisors, 3 area stewards and 1 area leader. Team support would also be provided at area office level, covering functions such as the procurement of materials.
- 6.23 The detailed guidance for the area teams was, as I have said, to similar effect. The key 12 operating principles were set out, with new responsibilities, not specifically found in the previous version of the principles applicable to the highways response teams, including direct contact with service customers and responsibility for assessing the causes of a defect in order to decide the most appropriate repair solution. It was envisaged that the types of repair which the Better Highways teams might undertake would include small-scale patching works as well as pothole repairs. The list of standard tools which the teams were to carry with them included two which were not in the previous area highways teams' equipment list, namely cable detectors and breakers (although it appears they were in fact already issued to the area highways teams by this time anyway).
- 6.24 There can I think be no real doubt but that if Better Highways had been implemented in the final event in accordance with these proposals there would have been a significant difference in approach. In particular, it is apparent that the proposals assumed that the local inspector role provided by Capita would either be completely integrated into Better Highways or at least be very significantly subsumed within it. However the immediate problem in implementing these proposals was the concern that to transfer the role of inspection to the Better Highways teams, without at the same time introducing an approved and documented alternative inspection regime, would unacceptably prejudice Cumbria's ability to establish the statutory defence under section 58 of the Highways Act 1980 in relation to any tripping or other highways related accidents claims. In the end, that part of the proposal had to be shelved, so that the Capita inspection role was retained within Capita and, subsequently, transferred to Cumbria.
- 6.25 In the meantime, Amey had begun to table proposals for a new rate for the Better Highways teams. In August 2010 Amey proposed a daily gang rate of £478.68, compared to the existing area highways team rate of £405.28. It was explained that this would enable Amey to cover its existing overhead and margin and that it was made up by taking the existing area highways team daily rate and adding a supplement for the additional cost of providing the area steward and area leader overseeing role for each team. However Cumbria was not happy with this proposal, and asked for a detailed build up to support it.
- 6.26 In September 2010 there was a meeting to discuss the proposed new rate, followed by an email from Amey, tabling a revised proposal for an increased rate of £482.35. This also involved taking the existing area highways team rate as the starting point, adding the extra

cost of the area steward and area leader, and also adding a small uplift for what was described as “lack of wet weather work for teams” and an even smaller uplift for additional training costs. The former item referred to Amey’s expressed concern that if more work was given to Better Highways teams less basic maintenance and repair work would be available to give to its surfacing gangs to keep them profitably occupied at times of wet weather when they could not undertake surfacing. Amey contrasted this proposal with what it said the new rate would be if the starting point was either the existing dayworks rate of £463.04 or the compensation rate, if calculated in accordance with the contract, which it was said would be £554.94.

- 6.27 Cumbria did not accept this revised proposal either. However these proposals are relevant in my view, because they demonstrate clearly that at this point Amey’s contemporaneous analysis was that the core work of the Better Highways teams would not be significantly different, if at all, from the core work of the area highways teams, which itself had not changed significantly from the core work of the highways response teams, so that Amey was not insisting that the change was so fundamental that it would need to start from scratch with an entirely new rate. Instead, Amey’s contemporaneous analysis was that what was going to change was the need for the more intensive supervisory input required from the area steward and the area leader.
- 6.28 Given the impasse, some solution had to be found for the additional supervisory input. The existing rate included for the requisite supervision as part of the allowance for overheads and profit. Although not broken down in the tender, as Mr Forster said in his first witness statement at paragraph 284 the ratio of supervisors to operatives was 1:16, which equated to 1 hour of supervisor time per 2 man gang day. His evidence was that Cumbria wanted to increase this ratio considerably but that Amey was unwilling to do so, given the potential knock-on effect on its ability to resource other work. The compromise which was eventually reached, and the way in which it was put into effect, was that the existing 1 hour supervision time per gang day would be treated as included within the daily gang rate, whatever it should eventually be, and all supervision provided above and beyond that would be claimed separately at the appropriate dayworks rate for supervisor level staff. This agreement was reflected in the interim guidance issued by Mr Robinson in April 2011, referred to by him in paragraph 138 of his first witness statement. Of course it was possible that final agreement on a new rate might have included incorporating all required supervisor input into that new rate, but if that proved not to be the case it would not matter, because Amey would be entitled to recover the cost of such supervisor time as was required under the contract dayworks rate, which it has never suggested was set too low to be acceptable.
- 6.29 As the roll-out proceeded, works instructions were issued on a monthly basis for the Better Highways gangs in each area, together with works instructions on a monthly basis for the provision of plant and materials not included in the daily rate and for the provision of overtime working at the appropriate enhanced rates. Each month Amey would submit its claims for payment on Siteman in relation to these works instructions, including its claim for additional supervision in accordance with the agreement reached.

- 6.30 However the failure to agree a Better Highways rate was causing Cumbria financial problems. The particular problem was that Cumbria had no separate budget for Better Highways. Better Highways had been sold to the elected members on the basis that it would be self-financing from anticipated future savings but, pending the expected future savings having effect funds had to be found if Amey's invoices were to be paid. Even though the leader of the Council was aware that members were worried and were asking for comparative costs, and was requesting that they be provided, no details were provided and it appears quite clear from the emails to which I was taken that the members were effectively fobbed off with bland assurances. A particular problem for Cumbria was that one consequence of adopting the "right first time" philosophy was that the Better Highways teams were ordering and using a product known as Viafix to make immediate permanent repairs which, although perfectly consistent with the new philosophy, and quite possibly less expensive in the long term than the previous temporary followed by permanent repair approach, also happened to be extremely expensive to buy. The difficulty, so far as Cumbria was concerned, was that the monthly applications being submitted by Amey had to be accommodated within a budget which contained no separate provision for them, and were higher than appears to have been contemplated, leading to significant budget pressure in circumstances where no financial savings had yet been achieved.
- 6.31 The consequence, as graphically demonstrated in cross-examination of Mr Raymond by reference to the contemporaneous documents, was that Mr Raymond was instructed, almost certainly by Mr Moss, to intervene in the monthly applications and payment process which, in accordance with the contract, was being operated by Capita as the independent overseeing organisation. It is apparent from the email exchanges in August 2010 to which he was taken that Capita was instructed to process the orders and invoices to Cumbria's requirements, but that its power to authorise payments was withdrawn, and its valuations had to be submitted to Cumbria for authorisation and payment. There is no indication that Cumbria had also instructed Capita not to undertake its obligation as overseeing organisation to process the monthly applications in the sense of scrutinising them, checking that they were consistent with the works instructions, and asking for back-up details where considered necessary. However, because the final authorisation was taken away from them, and the decision about how much to pay and when was taken by Cumbria by reference to its own short term financial circumstances, the end result was that there were some quite serious delays and substantial short payments throughout the trial period. Not surprisingly, both Amey and Capita became increasingly frustrated and aggrieved by this, but it is quite clear that Mr Raymond, I am satisfied acting on instructions from Mr Moss, simply stonewalled these protests.
- 6.32 I reject Mr Raymond's evidence in re-examination that there were significant problems with Amey providing back-up documentation which explained and justified these late and short payments. There is no contemporaneous documentary evidence of this. There is no reason to think that Amey and Capita would not have continued to operate essentially the same process, which had worked perfectly well in relation to highways response teams and their successors for many years, and which Capita was paid to undertake. This was, after all, a relatively straightforward process; it was known how many Better Highways teams had been instructed for each area in each month, and all that Capita needed was the daily record sheets to establish

which operatives had worked on which days and for how many hours, together with details of the materials used and of supervisor times, with, if necessary, supporting documents such as materials invoices being provided. It is noteworthy that until Mr McGoldrick became involved and obtained access to SAP Cumbria appeared to have had no difficulty in addressing Amey's case in relation to the number of gang days being claimed and the credits they were seeking for days not worked. Cumbria has called no evidence from the former Capita inspectors, the majority of whom transferred back to Cumbria in early 2011, to support its case in this regard, nor has it provided any documentation to support its case. In my judgment it is a cynical contrivance deployed at the time to seek to justify its late and short payment and deployed now to challenge Amey's claims for Better Highways team days worked.

- 6.33 I should also refer at this stage to Mr Forster's allegation that he reached a verbal agreement with Mr Moss to the effect that Amey's existing overhead and margin would not be prejudiced by the introduction of Better Highways. As I have said, I do not accept this evidence; I am not satisfied that there is any support for it in the contemporaneous documentation, and I do not regard Mr Forster as a reliable witness where uncorroborated. The most that can be said in my view is that Amey was making it clear that unless it reached an agreement on a rate all bets were off and it would not regard itself as bound by any previous proposals. The fact that specific reference was made to Amey seeking compensation in the rate for the loss of wet weather work tends to undermine Mr Forster's evidence that there was some wider agreement in relation to some wider compensation for loss of margin overall. Moreover, even if some verbal agreement was reached, it is difficult to see how it could have been anything more than an agreement in principle which could not have had contractual effect. Apart from anything else, since as I have said there was no figure for overhead and margin in the contract, it is difficult to see what the effect of this agreement might have been; did it refer only to the existing margin on such works, if any, as Better Highways took away from the planned works gangs, or did it refer to the existing overall margin? I note that Mr Smith put it slightly differently in his second witness statement, suggesting that Amey's rate proposals were only ever provisional and open to renegotiation if its margin turned out not to be protected; this suggestion however is completely inconsistent in my view with the whole tenor of the correspondence, where no such qualification was stated, and also with Amey's contemporaneous willingness to offer a 9% discount across the board as the price for a contract extension and without any contemporaneous reservation of rights.
- 6.34 In October 2010 Mr Forster produced his written review, which showed that Amey was still very keen to obtain the contract extension but was also addressing how to plan in the event that one was not forthcoming. This included, importantly, a plan to place more work with subcontractors so as to reduce its long-term cost risk in the event that it was unable to procure a transfer of employees back to Cumbria, albeit at the expense of its margin, which it was recorded was still at that time higher than the tender margin.
- 6.35 By the end of January 2011 at the latest, although probably rather earlier, the roll-out of Better Highways to all areas was effectively completed.

- 6.36 In January 2011 Cumbria informed Amey of its decision not to extend the contract beyond March 2012. It is clear that this was a severe blow to Amey, and it is also clear that Amey felt particularly aggrieved that it had been led to believe that it had a good chance of securing an extension when Cumbria had, for some time, never seriously considered doing so. Since Amey had no contractual entitlement to an extension of the contract, it has not been able to challenge this decision, whether by these proceedings or otherwise, but nonetheless it is clear that this undoubtedly poisoned relations between the parties from January 2011 onwards, with the effect that the partnership remained alive in name only. Furthermore, neither party had any particular incentive from then onwards to stay their hand in relation to the assertion or defence of their respective claims and counterclaims.
- 6.37 Thus in January 2011 Mr Robinson had begun to investigate what appeared to be an absence of test certificates for surfacing works carried out in the Barrow and South Lakes areas. He sent what could be described as a fairly blunt request for copies of all test results for surfacing schemes within these areas over the past 2 years to be supplied in the next 7 days. Based on what was produced he came to the conclusion that Amey had been able to produce only approximately 20% of the certificates which it should have been able to produce, and that this was because Amey had failed to arrange for technicians to attend the work sites to undertake the required testing on these surfacing schemes. There is a contemporaneous chain of email correspondence between Mr Collins and his area managers relating to this, which indicates that there was indeed a problem with testing at that time, which Mr Johnson explained as being either caused or exacerbated by a large surfacing programme being ordered and undertaken within a condensed timescale, coupled with a resource problem at AEL. Whether or not the latter is true is open to doubt, because the gist of Mr Felc's and Mr Field's evidence was to the effect that whilst there were some transient resource problems at AEL at certain times the real issue was that Amey was simply not instructing AEL to undertake testing in relation to the majority of the surfacing work it was carrying out.
- 6.38 At the end of January 2011 the Capita contract came to an end and the majority of the Capita staff transferred back to Cumbria. Cumbria appears simply to have assumed Capita's former role as overseeing organisation, without any consideration seemingly been given by either Cumbria or Amey as to whether or not that was something which was permitted by the contract. Insofar as relevant, it seems to me that Cumbria's performance of responsibilities which ought, under the contract, to have been performed by the overseeing organisation must be judged by the same standards as one would expect from an independent third party contract administrator.
- 6.39 At around this time it is clear that there was mounting concern within Cumbria that the budget was not adequate to meet the costs of Better Highways, particularly in circumstances where Amey was still submitting claims, as it was entitled to do, against the agreed interim dayworks rates, coupled with high material costs due to the use of products such as Viafix and high supervisory resource. The end result was that Mr Raymond was commissioned to produce a review as to how to make Better Highways affordable. This review, in February 2011, set out five options. The first was to revert to the existing contract, which he did not

recommend. The second was to continue the interim Better Highways teams with additional cost controls, which he also did not recommend primarily on grounds of cost. The third was to retain the Better Highways find and fix role, with other planned works being procured through Amey under the existing contract schedule of rates. The intention was to reduce the scope of Better Highways, so as to make it more affordable. This is the option he recommended. Options 4 and 5, both involving proceeding with the full Better Highways model, were also rejected on costs grounds.

- 6.40 Mr Raymond's recommendation was considered further by Mr Masser, who came to the same conclusion. He identified option 3 as comprising 33 Better Highways teams, to be ordered on the basis that they were undertaking the same role as required of the original highways response teams under the contract, with Cumbria deploying 1 area steward for every 2 teams. These area stewards were to perform the responsibilities which, under the original proposals, were to be undertaken by the area stewards to be provided by Amey as part and parcel of the Better Highways model.
- 6.41 This, it is clear, is what was eventually brought into effect. Mr Raymond's evidence was that in April 2011 there was a restructure so that the Capita inspectors who had transferred back to Cumbria became the area stewards, who continued to undertake the inspection work which they had undertaken whilst at Capita, and Amey reverted to providing supervisors to supervise the Better Highways teams. As Mr Raymond said, the introduction of Better Highways in the way which had originally been envisaged did not come into effect, so that the Amey operatives and the Capita operatives respective roles were not merged into one until after the Amey contract came to an end.
- 6.42 In my view this is of some significance in the context of Amey's Better Highways team claim. It is not open to Amey to contend that what was envisaged at the start of the roll-out period was actually brought into effect, since I am satisfied that what was actually brought into effect was a much attenuated version of the original Better Highways proposal.
- 6.43 Following the Masser report, Mr Robinson was tasked with producing a report providing recommendations as to how to address the costing of the work done under Better Highways to date and for the future under option 3. In his report produced at the end of March 2011 he recommended paying Amey for the work done in year 6 on the dayworks basis previously instructed, and paying Amey for the work to be done in year 7 using the existing highways response team rate, as being the least expensive option. He recommended that this be implemented by issuing change order requests, with any disputes being resolved via the dispute resolution procedure in schedule 8 of the services agreement. He also considered the option of using the compensation event procedure in the highways special conditions, but recommended against this as being the most expensive alternative.
- 6.44 On 8 April 2011 Amey submitted its proposed revised Better Highways rate in the significantly increased amount of £740.17, which it said it would begin charging in year 7. It can be seen from the supporting build-up that it was a rate derived from first principles using the SSCC; it can be seen for example that it had a 75% overhead allowance added to the

“people” costs as provided for by the SSCC under this contract. It included specific allowances for specified individuals such as an area manager, an engineer, a supervisor (1 hour), a planner, a quantity surveyor and a processor, as well as an allowance for additional local management and support team input. It should be noted that these allowances are significantly less than those now claimed by Amey.

- 6.45 Cumbria’s response was to issue two change order requests on 20 May 2011. The first was said to be retrospective to cover the Better Highways trial period from August 2010. The second was said to be for Better Highways from the end of the trial period to the end of the contract. It was said that the trial period was “due to end on 31 March 2011, but will continue until 31 May 2011 or until this change order takes effect”. It said that Cumbria’s proposal was to re-establish and supplement the number of highways response teams, renamed as Better Highways teams. It attached a statement of operating principles and a proposed amended clause 3302 AR rev 1 and a proposed amended appendix 38/5 rev 1. These were in substantially the same terms as the existing versions, doubtless intentionally. The only significant difference related to the number of teams, which was said to be 33, although as I have said in fact only 32 were ordered. The first change order request stated that Cumbria would pay for the trial period in accordance with the schedule of rates, on a dayworks basis, with payment for bespoke materials being made in accordance with the SSCC. The second said that Cumbria would pay for Better Highways going forwards at the existing highways response team rate, with payment for bespoke materials being made as previously.
- 6.46 It is common ground that the reference in the first change order request to the “trial period” must be seen as a reference to the roll-out period, and it appears clear that Cumbria’s intention was that Amey should be entitled to payment on dayworks until the second change order took effect. It is not entirely clear from the change order requests whether it was envisaged that Amey should be entitled to payment on dayworks beyond 31 May 2011 if the change order was not agreed by then; on a strict wording of the requests it would appear so, although I rather doubt that this is what Mr Robinson had in mind.
- 6.47 However, that question is academic because Amey’s response, not surprisingly given its previous stance, was to reject the financial proposals put forward in those requests. It did say that it agreed with the delivery principles, but it rejected the proposal to pay for the trial period on a dayworks basis, and it also rejected the proposal to pay going forwards on the basis that the highways response team rate was inappropriate, for reasons which were contained in 10 separate bullet points, to which I shall refer in more detail later. Its counter proposal, as required by paragraph 4.3 of schedule 6, was that the rate it had proposed in January 2011 should apply throughout, with other costs to be submitted in due course.
- 6.48 What schedule 6 required in such circumstances was for Cumbria to give either notice of acceptance of Amey’s proposals or to invoke its right to request a modification of Amey’s proposals which, if Amey did not agree, could then be determined via the dispute resolution procedure, with Cumbria having the right either to give notice of acceptance of the proposals as determined or to withdraw the change request. The dispute resolution procedure would firstly have involved senior representatives of both parties, secondly if necessary a meeting of

the senior partnership board, and failing agreement proceeding to resolution by adjudication and/or by litigation. The end result should have been either an agreement or a binding decision as to the reasonable financial implications of the proposed change, which Cumbria could either have required Amey to implement or decided not to proceed with.

- 6.49 Mr Robinson duly drafted a counter notice seeking a modified response; however it appears that a decision was taken by Cumbria not to send that notice and, instead, to seek to resolve the issue through discussion. However no urgency was shown with this strategy and a meeting did not take place until September 2011, with no agreement being reached. In the meantime, Amey was submitting Better Highways team claims under the rate it had proposed in January 2011, whereas Cumbria was paying at the highways response team rate, thus a substantial difference was opening up. However, there is no indication that those at Cumbria responsible for scrutinising and approving these monthly payments applications were also challenging the claims made, in terms of days and hours worked, both by the gang operatives and by the supervisors, or in terms of the materials claimed for. Nor is there any evidence that Cumbria was declining to fulfil the obligation, imposed on the overseeing organisation under the contract, to perform this function. Cumbria has not served any evidence from anyone responsible for undertaking this action to seek to support the case which it now puts forward in relation to the number of Better Highways team days or hours worked. Indeed, in September 2011, when Mr Robinson became aware that Amey was submitting claims at the January 2011 rate, he instructed the local service managers to refuse to authorise payments at that rate, which nonetheless shows that they were still being expected to process and approve where appropriate or seek substantiation where necessary the claims at that time.
- 6.50 In May 2011 Cumbria formed a claims committee in order to progress its defence of the claims being made by Amey and the counterclaims which it was intending to make. Cumbria has successfully claimed privilege over the proceedings of this committee, from which it also follows that Cumbria is not entitled to deploy any documentation covered by such privilege.
- 6.51 In October 2011, following an investigation into Amey's street lighting works, Cumbria invoked its rights of substitution under condition 48 of the services agreement, removing the street lighting works from the scope of the contract, on the basis of its conclusion that Amey had been systematically unwilling or unable to address, to its satisfaction, the various matters of complaints and concern which Cumbria had raised. This was another severe blow for Amey, and poisoned still further relations between the parties going forwards. Whilst Cumbria's entitlement to exercise this right was challenged in these proceedings, that dispute was resolved by agreement, so I need say no more about it. It is, however, not without significance that Cumbria did not seek to invoke the same right of substitution in relation to Amey's patching or surfacing works, notwithstanding the serious criticisms which it now makes in these proceedings as to the quality of those works.
- 6.52 In February 2012 Cumbria made substantial deductions from the payment falling due to Amey in relation to the January 2012 monthly valuation. By this stage Mr Robinson's valuation of Cumbria's claims had increased to over £19 million, and its strategy was to make deductions from monthly payments for sums due to Amey towards the end of the contract, to

reflect its assessment of these substantial counterclaims. Thus it made further substantial deductions in March and again in April 2012 for the payments falling due in relation to the February and March 2012 monthly valuations. The total withheld from these last 3 monthly valuations amounts to some £4.5 million. It is also clear, as demonstrated by cross-examination of Mr Robinson by Mr Streatfeild-James, that by this stage any semblance of independent certification by anyone purporting to act as a representative of an impartial overseeing organisation had long since been abandoned, and the process was being driven entirely by Cumbria's dispute resolution board.

- 6.53 The contract came to an end on 31 March 2012. Cumbria had, of course, been preparing for the process of re-procurement of the highways maintenance service works. In short, as described in the guide referred to by Mr Robinson in his witness statement, much of the work was taken over by Cumbria's DLO, using operatives who had transferred back to Cumbria from Amey, with that service being "complemented and supported" by what were described as framework contractors, providing "specialist services" including the "delivery of major projects" and "extra capacity". It appears clear that the specialist services referred to included surfacing works and thin surfacing works, but there is no suggestion that it was envisaged that minor patching repairs would be undertaken by these framework contractors, unless extra capacity was needed. As Mr Robinson said in his witness evidence, whilst the majority of surfacing was done by the framework contractors, the majority of patching was done by Cumbria's DLO.
- 6.54 The framework contractors were appointed according to their specialisms and in specific areas. Thus as regards patching and surfacing works a company known as Hanson were appointed in the northern and western areas and a company known as AI were appointed in the southern area, with 2 reserve framework contractors also being appointed, and a company known as Kiely were appointed to undertake surface dressing. None were appointed on an exclusive basis. The patching and surfacing contracts ran for 2 years through to March 2016 and were re-tendered before that. Cumbria had declined to provide information in relation to the replacement framework contractors or their rates; although Cumbria subsequently, towards the end of the trial, offered to do so, it was too late by that stage. The surface dressing contract ran for 1 year, and at each renewal was retendered and successfully bid for by Kiely.
- 6.55 Mr Robinson said that whilst Hanson's rates were more competitive than Amey's rates for surfacing works, they were more expensive for patching works. He also said that Kiely's rates were more competitive than Amey's rates for surface dressing. However, all of the framework contractors rate were exclusive of traffic management, unlike Amey's which were inclusive other than for certain types of work.
- 6.56 This evidence is relevant to the quantification of Cumbria's defects counterclaims. As regards patching Mr Robinson's evidence was that Cumbria was not able to extract from its accounting database evidence of the costs of its DLO in such a way as to ascertain the cost of undertaking patch repairs on a unit cost basis or to establish its preliminaries and overhead costs. This explains why Cumbria has sought to use the rates in the framework contractors' contracts for costing patching remedial works, as well as surfacing remedial works.

- 6.57 Cumbria accepts that it has not, since March 2012, undertaken any targeted process of rectification of defects said by it to be attributable to Amey's defective works. Instead, Cumbria has continued to inspect its road network in the same way as before, identifying defects and prioritising repairs in accordance with its established procedures, in particular its statutory obligations as regards the maintenance and repair of its road network, and regardless of whether or not those defects are, or are not, related to works previously undertaken by Amey and said to be defective. Cumbria does not have, nor has it established, any system to identify or to record or to cross refer works which it has undertaken since March 2012 with works previously undertaken by Amey and said to be defective. It follows that if and insofar as any remedial works undertaken to date by Cumbria have included repairs to works previously undertaken by Amey and said to be defective, Cumbria has no way of establishing whether the work which it has undertaken was limited to remedying Amey's defective work, or was part of a wider remedial work scheme, or who did the work or at what cost. It is clear that this will continue to be the position going forwards so that, for example, even if as a result of this judgment Cumbria was awarded a substantial amount of money reflecting the cost of undertaking repairs to Amey's defective works, it could or would not – I am satisfied – undertake a targeted remedial works scheme limited to remedying those defective works. That is not surprising, in relation to the patching and surfacing claims, because since its claim is based on extrapolation, it has not in fact even attempted to identify, by reference to specific sites, each and every site at which it contends Amey has undertaken defective works for which it claims remedial costs.
- 6.58 Beginning in April 2012, PTS was instructed to inspect a number of sites to investigate the 190 pen issue. I will refer to these investigations in more detail in the context of Cumbria's patching and surfacing counterclaims.
- 6.59 In May 2012 Cumbria instructed the construction consultants JR Knowles to "support the claim process". This included, but was not limited to, the instruction of Mr McGoldrick to provide independent expert evidence in relation to Amey's claims.
- 6.60 In June 2012 Amey submitted its final account, in the total amount of £268,335,368.96, that being the total valuation for all work done during the currency of the contract, with a balance payable said to be £21,970,910.97. This was divided into 2 elements. Part 1 was said to be the claim for unpaid works instructions, as comprised within previous annual accounts, in the revised amount of £7,915,101.86, and part 2 was said to be the claim for payments arising under the contract change procedure and other claims, originally totalling £13,754,107.91 but subsequently increased to £24,870,188.23. The final account was accompanied and supplemented by a substantial volume of information. Cumbria's analysis resulted in a number of requests for further information and a preliminary response, including the assertion of a number of substantial counterclaims. In particular, requests were made for further information about the Better Highways claims, to which I shall need to refer in more detail subsequently.

6.61 In December 2012 Amey submitted, through its solicitors, its pre-action protocol letter of claim. This included a revised assessment of the Better Highways claims adopting a significantly increased daily rate calculated by reference to the SSCC, of £922.83 and, thus, substantially increasing the overall claim. In April 2013 Cumbria submitted its pre-action protocol letter of response. This included, for the first time, substantial claims in relation to patching and surfacing based on extrapolation. In July 2013 Amey submitted its pre-action protocol reply, from which it was clear that the parties were very far apart, and these matters rested until November 2013, when the current claim was issued.

7. **Amey's part 1 claim**

7.1 As summarised in Amey's closing submissions, its part 1 claim is for the value of work applied for in years 5, 6 and 7 which it says remains unpaid by Cumbria. The total pleaded claim is £7,915,101.86 and the disputes are in three parts: first Better Highways works instructions, where the pleaded value is £2,559,522.99; second street lighting works instructions, where the pleaded value is £335,546.94; and third other works instructions, where the pleaded value is £822,668.75. The difference between the total of these 3 figures and the claim is made up of the amount already withheld by Cumbria, in the sum of £4,197,363.18, which is broken down at p.84 of Cumbria's closing submissions on this issue. Whether or not Cumbria was entitled to withhold these sums will of course depend on my resolution of its counterclaims. It follows however that Cumbria admits, subject to its entitlement to withhold, that Amey is entitled to this sum for work done under works instructions, i.e. there is no separate dispute in relation to this element of the part 1 claim.

(a) **The "other" works instructions**

7.2 In my draft judgment I said that since the claim for the other works instructions had been settled in the sum of £647,994.98, it did not need to be the subject of substantive consideration by me. However, I noted that there was a section of Cumbria's closing submissions, headed "B.3 Other Tickets" which addressed, by reference to a section within Mr McGoldrick's supplementary report, the consequences of the agreement in relation to these items on the part 1 claim. I confessed that I had not found this section entirely easy to follow, let alone to understand, which I accepted was probably my fault. I noted that it had not been the subject of cross-examination of either quantum expert, and that when I referred to it during the course of closing submissions counsel were agreed that it would need to be considered as part of the overall reconciliation to be undertaken once this judgment has been produced. On that basis, I left it over in the hope that, since it did not appear to raise any matter of principle as opposed to pure accounting matters, it ought to be possible for the parties, sensibly advised by the quantum experts, to be able to agree matters.

7.3 That as it transpired was a triumph of hope over experience in this case, because at the October hearing it became apparent that there were a substantial number of disagreements in relation to this item, which I shall have to and do now consider.

- 7.4 What is now clear is that the process by which the other work instructions claim had been according to Amey settled in its entirety had proceeded in three separate stages.
- 7.5 The first stage, occurring prior to 27 August 2014, was where individual works instructions had been agreed or accepted by Cumbria over a two year period and Siteman adjusted accordingly. This process was described in paragraph 138 of Mr Smith's first witness statement, where he said that an additional £356,753 had been agreed on this basis. Mr Robinson responded to this element of the claim in his supplemental witness statement but did not challenge this statement.
- 7.6 In his principal report Mr McGoldrick had not made any comment on this, but in his supplemental report produced shortly pre-trial Mr McGoldrick reported the results of his further investigation into this matter, contending that it appeared on further analysis that the true value of these works orders was only £286,168.13 and further that the amount paid by Cumbria had been understated by £33,491.12, with the result that the true total due to Amey was only £252,677.01. It does not appear that this was the subject of any supplemental report from Mr Taft or any joint discussion between experts. That is perhaps not surprising given the volume of other matters occupying the quantum experts over the trial period.
- 7.7 These points were taken up again in the further joint statement produced on 20 October 2016 post draft judgment. Mr McGoldrick explained in more detail that of this amount of £356,753, £70,608.18 related to what appear to be 70 works instructions which more properly fell within the Better Highways and Street Lighting Part 1 claims, and were dealt with elsewhere. Mr Taft agreed that this appeared to be the case, although he put the amount at £77,611.85, the difference appearing to be an allocation issue, and he also qualified this by saying that Amey was still checking to see if this was factually accurate. Mr McGoldrick also explained that the £33,491.12 additional payment was also not taken into account, and Mr Taft stated that he was unable to comment.
- 7.7 Amey submitted that it was simply too late for Cumbria to take up Mr McGoldrick's points at this stage. It argued that they had not been raised as an issue at trial, as evidenced by Mr Smith's supplementary statement, and the trial had proceeded on the basis that this settlement had related to all other works instructions.
- 7.8 Whilst I do have some sympathy for Amey's stance, nonetheless I agree with Cumbria that these points had indeed been raised by Mr McGoldrick pre-trial and the opportunity was there both during the trial and at this stage (given the points made above about what had transpired in closing submissions) for Amey to contest these points on the merits. Indeed during the course of the October hearing Mr Taft and Mr McGoldrick gave further consideration to this matter and produced a very helpful further joint statement in which it was agreed that of the 70 works instructions in question 7 had not been dealt with elsewhere so that their combined value, totalling £48,923.63, should be added back. This was useful, and reduced the amount in dispute. As regards the balance of disputed matters concerning this stage of the process, having seen what Mr Taft has to say about them in the recent joint statement, I consider that Mr McGoldrick's points are well made and that the claim should be reduced downwards by

reference to these errors in Amey's calculations. I emphasise that this does not involve Cumbria seeking to renege on previous agreements, but simply to place the financial consequences of these agreements in their proper context.

- 7.9 For completeness, I accept Mr McGoldrick's figures on the smaller differences with the result that the amount due to Amey (excluding the second stage issue to which I turn next) is £252,654.67 plus £48,923.63, total £301,578.30 – see page 15 of the further joint statement and page 3 of the 28 October 2016 joint statement.
- 7.10 The second stage, occurring in August 2014, involved a series of meetings between Mr Smith for Amey and Ms Chapman for Cumbria as a result of which, according to Mr Smith, agreement was reached on a further 90 disputed other works instructions, as confirmed in a subsequent email. Ms Chapman did not produce a witness statement to contest this, but Mr Robinson in his supplemental witness statement asserted that there had been no such agreement, relying on an email sent by REN on 17 October 2014 to which I shall refer in due course.
- 7.11 If there was a settlement at that figure, then that is of course conclusive. If not, then whereas Cumbria contends that it follows that Amey has failed otherwise to prove its case on these 90 the claim in respect of which must therefore fail, Amey contends that they will have to be resolved at a further hearing if agreement cannot be reached.
- 7.12 It is clear from the documents that Mr Smith and Ms Chapman did indeed reach agreement on the 90 works instructions, and that they endorsed the relevant schedules with their agreement which was, however, marked without prejudice. On 29 August 2014 Mr Smith sent the schedules to Ms Chapman confirming the agreed value changes and asking for her confirmation that she agreed.
- 7.13 Ms Chapman did not immediately respond and thus Pinsent Masons chased REN for a response. They asked REN to confirm that the agreements were and could be treated as open. After some chasing REN responded on 17 October 2014 confirming that it agreed to the spreadsheet being treated as an open document. They also emphasised that “our client's position on the content of the spreadsheet as currently presented remains entirely reserved”.
- 7.14 As I have said Mr Robinson asserted and Cumbria submitted that this meant that although the spreadsheet and agreements could be treated as open, there was no agreement because the position had been “reserved”. I am unable to understand how an agreement which has become open could be regarded in the context of these discussions as still in some way being “subject to contract” simply because the position had been reserved. That can only refer in my judgment to the continuing debate as to the remaining 52 works orders.
- 7.15 Even if I was wrong about that it seems to me that once the third stage was concluded any reservation was impliedly abandoned. Thus the third stage, about which there is mercifully no dispute, is that on 27 November 2015, after further discussions between representatives of

the parties, the remaining 52 other works instructions were settled for the sum of £175,000 and the agreement recorded in a deed of settlement.

7.16 Finally, even if I was wrong about that it seems to me that the effect of the agreement reached being open is that this is evidence upon which Amey can rely to establish, in the absence of contrary evidence from Cumbria (such absence not being surprising in the circumstances), that the agreed amount is a reasonable amount, and it is not necessary for Amey to have adduced any further evidence to substantiate its claim.

7.17 The conclusion I have reached, therefore, is that the total due to Amey as regards other works instructions, taking into account payments already made, is £301,578.30 plus £137,951.34 (being the valuation of this settlement according to Mr McGoldrick whose opinion I accept of this item), total therefore £439,529.64.

(b) The Better Highways Works Instructions

7.18 As regards the Better Highways elements of this claim there are, as summarised in paragraph 353 of Amey's closing submissions, four different elements to it:

(a) The claim for Better Highways gang days: the sum claimed being £2,328,818.94, relating to 106 works instructions. This claim is disputed both as to the number of gang days worked and as to the appropriate rate to be charged and, as such, it is inextricably linked with item 12 of Amey's claim.

(b) The claim for Better Highways plant and materials: Amey accepts that it has been overpaid by a modest amount, £15,058.37, on the basis of an analysis of 93 works instructions, whereas Cumbria contends that the overpayment is much more significant.

(c) The claim for Better Highways out of hours works: this is a relatively modest claim for £51,743.45, based on an analysis of 80 works instructions.

(d) The claim for the unpaid balance of what is claimed in relation to works instruction F300087, being the works instruction to cover the Better Highways trial in the Eden area for year 6, to which reference has already been made in paragraph 6.18.

7.19 Cumbria suggested in its closing submissions that it was preferable to address these Better Highways claims in their entirety when addressing item 12, because they are inextricably tied in with the arguments about what rate should be applied to the Better Highways teams, the arguments about the number of gang days and, more generally, the debate between the parties as to whether or not Mr McGoldrick's assessment of the Better Highways claims based on his analysis of the information obtained from SAP is to be preferred to Amey's case. Amey did not dissent from this proposition and, indeed, addressed different aspects of this claim in different parts of its closing submissions. I agree with Cumbria that it is preferable to address all Better Highways issues at the same time and, hence, will return to this element of the claim when addressing item 12.

(c) The Street Lighting claims

7.20 That leaves only the street lighting claims to be addressed at this stage. Cumbria's street lighting overcharging claim is the subject of schedule 5 of the counterclaim. Cumbria withheld £180,666.99 from Amey's monthly payments applications in relation to this counterclaim, and the justification for that falls to be addressed when I consider schedule 5. The remaining issues which are relevant in relation to the part 1 claim are, first, what is the amount of the street lighting claim which is not subject to the counterclaim and, second, whether Amey has demonstrated its entitlement to payment in relation to that claim.

7.21 To complicate matters, there is something of a lacuna in Cumbria's expert evidence in relation to this issue. That is because whilst Mr Dale was instructed to consider Cumbria's schedule 5 counterclaim, neither he nor Mr McGoldrick was instructed to consider this aspect of Amey's part 1 claim. In the further joint statement however Mr Taft has helpfully summarised his understanding of the position, from which it appears that:

- (a) There is £154,879.95 in issue which is unaffected by the counterclaim of £180,666.99.
- (b) He had not seen any basis to explain Cumbria's non-acceptance of the remainder of Amey's claim.
- (c) He had observed certain errors and inconsistencies in Cumbria's approach to this claim, which he considered were all indicative of Cumbria adopting a broad brush assessment rather than a careful assessment to valuation. He gave four examples: (i) certifying the original ordered value even though Amey had claimed a greater sum by way of re-measurement, when in some cases the order had included estimated dayworks items which, he considered, were intrinsically unlikely to have remained the same on completion of the works; (ii) certifying items at 2/3rds of the claimed values; (iii) paying labour and plant, but no materials; (iv) underpaying invoiced amounts, for example from utilities companies.

7.22 In cross examination Mr Taft accepted that he had only conducted a limited review of this aspect of the claim. He was also taken to a spreadsheet, provided by Cumbria as part of the pre-action protocol exchanges, where it had set out its case as to the items in dispute. The particular tab in the spreadsheet to which I was referred related to year 7, where in relation to 95 individual items totalling some £83,134.90 Cumbria had given a reason for not accepting the amount in issue, although in the main the only reason given was that "further back-up" was required. There is no evidence that Amey ever responded to this schedule, providing reasons why the explanation given was not correct, or querying what further supporting details were required. It was also suggested to Mr Taft that there were a number of possible reasons why, for example, payments may only have been made on a two-thirds basis. Mr Taft accepted that he was not really in a position to offer a detailed view of the competing assertions. He accepted that Cumbria had conducted some form of re-measurement exercise, so that it could not be said that it had simply failed to engage at all with these claims.

- 7.23 In short, it appears to me that where, in a case such as this, Amey has submitted claims for payment under Siteman, where Cumbria has paid less than claimed, but has provided some reasons for not making payment, so that the claims have not been agreed and the works instructions in question not finalised, it is for Amey as the party seeking to establish its entitlement to further payment to prove its case on the balance of probabilities. In relation to this claim that would have involved someone, whether a witness of fact with knowledge, or an expert with access to relevant documentary and other information, being able to explain why, notwithstanding the reasons given by Cumbria, the full amount is payable. If, for example, Cumbria says that back-up is required, in my view it is at the very least necessary for Amey to explain what back-up was provided, if any, and why no further back-up is reasonably required to substantiate the claim. It does not appear that Amey has produced any evidence in relation to this claim to establish its entitlement to payment, in circumstances where some prima facie acceptable reason for non-payment has been given by Cumbria.
- 7.24 However, by the same reasoning, if and to the extent that Cumbria has failed to provide any reason for not paying, then in my view it has failed to satisfy the evidential obligation upon it in such a case as to explain why a sum applied for through Siteman in accordance with the contractual provisions, as to which it had the opportunity, and indeed the obligation, to consider and to value, should not be paid.
- 7.25 Although Mr Taft was only specifically taken in cross-examination to the particular tab in the spreadsheet referred to above, following circulation of the draft judgment Cumbria drew my attention to the fact that the tabs in the spreadsheet for the previous two years contained a similar list of items - see [B/5.2.5.8/1]. Cumbria had drawn my attention to this spreadsheet in its closing submissions (section B.2, paragraph 8), although it did not specifically draw my attention to each of the individual tabs. Nonetheless I accept that in order to ensure consistency of approach I should adopt the same approach to the previous two years as I should to the final year, with the result that the total where reasons for non-payment were given and not responded to amount to £120,837.36.
- 7.26 In this case, therefore, my conclusion is that whilst Amey has failed to satisfy me that its claim to £120,837.95 is made good, equally Cumbria has failed to satisfy me that there are any good reasons for not paying the remaining balance of the £154,879.95, namely £34,042.59. Accordingly, I am satisfied that Amey is entitled to this amount of £34,042.59 in relation to its part 1 claim for street lighting.
- 7.27 Whilst it is perhaps unusual to have to decide a claim in a case such as this on the basis of the burden of proof, it is perhaps explained by the fact that the claim is, in context, of relatively small value, and the parties have simply not devoted the time or attention to it that it would, in another case, perhaps have merited.
- 7.28 Following circulation of my draft judgment Mr Taft and Mr Dale agreed that included in the items in year 7 amounting to £83,134.90 where I have found against Amey on the burden of proof are a number of items, totalling £33,244, which are also included in the Schedule 5

counterclaim. Mr Taft queried whether if these items were duplicated they ought not to have been deducted from the Part 1 claim. However Mr Dale queried whether that would be the case unless I had found against Amey on those items, because otherwise there would be no double deduction, and I agree with Mr Dale that only items where Amey failed on the counterclaim should not be deducted from the Part 1 claim. The experts were agreed in the further joint statement that these items are “most likely related to the Erect New item” where, as will be seen, I have found against Cumbria. The experts subsequently conducted a further investigation and were agreed that the sum of £3,627.11 could be shown to be effectively double deducted and, although Mr Taft maintained a reservation, it still seems to me that as regards the remainder on balance this is still most likely the position. It follows that there is no duplication other than as to £3,627.11, so that otherwise there is no reason to add back these items into the counterclaim.

7.29 Mr Taft and Mr Dale have also in their 28 October 2016 report considered the same question of potential overlap as regards the additional year 5 and 6 duplications, and again the position is that a small amount of £1,690.81 is agreed as being double deducted, but again I accept and prefer the view of Mr Dale as to the remainder.

7.30 The end result, taking into account the counterclaim, is the revised alternative 1 in the revised further joint statement signed 31 October 2016, namely £220,027.50.

8. **Item (j) – Lillyhall depot works**

8.1 The pleaded case summarises the claim as follows:

“Item (f), Lillyhall Depot Works: £126,447.71

The Council decided to replace its depot at Cockermouth with a new purpose-built highways depot at Lillyhall, Workington in late 2006. The Council awarded the building works for this depot to Amey which provided for payment of costs plus a management fee of 15%. Amey submitted its final account to the Council’s overseeing organisation (Capita Symonds) on 09/10/2009. Amey’s final account is in the sum of £2,456,581.51 of which it has been paid £2,330,133.80 leaving the balance due of £126,447.71. In pre-action correspondence and subject to Amey providing allegedly necessary substantiation and a minor deduction for alleged defects in Amey’s work (which are denied), the Council accepted this item of claim in principle.”

8.2 It is common ground that this work was undertaken under a contract separate and distinct from the services agreement, being a simple contract for work to be undertaken on a cost plus 15% basis. There is, however, a fundamental issue between the parties as to whether the local area overhead claimed by Amey should be included within the element of cost or should be deemed included within the 15% add-on, which is the first item for determination.

8.3 Before I proceed to that issue, however, I should also record that: (a) Amey now accepts that it has received a further £59,121.88 in addition to the sum pleaded, so that its claim now stands at £67,325.63; (b) by recent amendment, Cumbria has included a counterclaim for

£189,116.15, which flows from the analysis conducted by Mr McGoldrick from the data produced from SAP, where he concludes that Amey has been significantly overpaid; (c) Cumbria advances a minor counterclaim for alleged defects and alleged non-supply of drawings.

- 8.4 Regrettably, there appears to be no contemporaneous documentary evidence containing or evidencing the terms of the contract, beyond the simple agreement that it should be at cost plus 15%. Furthermore, no-one who was actually involved in the conclusion of the agreement has provided a witness statement or given evidence. Thus although Mr Smith had said that he understood that the agreement was that Amey should be entitled to include its local area overhead costs within the cost rather than having to absorb it within the 15% mark-up, he accepted that not only did he have no direct knowledge of this, he did not even know who had made the agreement. In the same way, Mr John Robinson said that he understood that it was a cost plus 15% contract on the basis of an “open book” arrangement, but again he did not have any direct knowledge of the agreement or its specific terms.
- 8.5 Both experts in considering this issue have placed reliance upon the fact that, as I have already noted, the fee under the highways special conditions was agreed at 9%. It appears from the documentation submitted in support of the tender that this was broken down as to 5.5% head office overhead and 3.5% profit. Both experts reasoned that it followed that the parties must have contemplated that the 6% difference between the 15% add-on and the 9% fee must have included for something, and have speculated as to what that might be. Thus Mr Taft is of the view that it must have been readily apparent that 6% was clearly insufficient to cover Amey’s local area overhead, whereas Mr McGoldrick is of the view that 6% would not be unreasonable for local area overhead in the context of this work being undertaken as an adjunct to the existing services contract, where Amey’s facilities were already in place.
- 8.6 In my view, in the absence of any evidence that the parties did, or must be taken to have had, regard to the 9% fee and to its constituent elements when agreeing the 15% add-on, it seems to me that this is all impermissible speculation. It must be borne in mind that the 9% fee is only expressly applicable under the contract to the valuation of claims under the compensation event procedure. I accept that the compensation event procedure also involves valuation of costs under the SCC, which in turn allows for the recovery of people costs, which may include managers and other non-productive staff, together with a 23% addition for working area overhead. However since the parties consciously chose not to place these works under the principal contract, and since there is no evidence that they agreed that the valuation under this separate contract should follow the compensation event procedure in the highways special conditions, all of this seems to me to be entirely irrelevant. Moreover, even if it was relevant it provides little or no support in my view to either party’s case in any event. Mr Taft’s view is not particularly convincing unless it could be said that Cumbria was aware from the contract or tender documents that Amey’s local area overhead costs were significantly in excess of 6%, as to which there is no evidence that it was. As against Mr McGoldrick’s view it is just as plausible that Amey was able to negotiate a 15% add-on as well as its local area overhead to reflect the fact that it was diverting its resources from the highways maintenance

services to this contract as a favour to Cumbria, and to save it the costs of an expensive and time consuming procurement exercise.

- 8.7 In closing submissions Amey suggested that it was possible to infer specific terms of the contract, in relation to which members of its staff were entitled to claim for their time as costs, and in relation to the valuation of plant and equipment, by reference to the way in which the parties had conducted themselves when submitting and agreeing the monthly interim valuations and in discussions about the final account. Whilst I accept that it is possible in principle to advance such a case I do not consider that any real basis for this argument has been established on the evidence, in circumstances where a positive case to this effect was neither pleaded nor were Cumbria's witnesses, including Mr Thexton, cross-examined on this basis. In reality, it seems to me that the evidence goes nowhere near establishing that there was any such specific agreement at the time the contract was entered into. Indeed the evidence showing that Mr Thexton was sufficiently concerned about the basis of valuation of plant and equipment to raise it expressly with Mr Smith during the course of the contract tends to indicate that he did not think that there was any prior established contractual agreement for making a claim on that basis; if he had thought that Cumbria had agreed to Amey charging on that basis he would have had no need to raise it as a potential issue.
- 8.8 It is common ground that work began in September 2007 and was completed a year later. It is also clear that interim accounts were submitted on a regular, weekly or monthly basis to a format required by Capita. I entirely accept the evidence of Mr Thexton, who produced these interim accounts whilst employed by Amey as a quantity surveyor, that he did so from contemporaneous records, including daily diary sheets, as well as information available from SAP, including information about materials costs and tipping charges. It is clear that at the time neither Capita nor Cumbria challenged these interim accounts.
- 8.9 That is of some significance in my view, because it is clear that the interim accounts included claims for the time of monthly paid staff who were involved on the project but who were not shown as allocated to the project on SAP because they were monthly paid staff rather than weekly paid staff (please refer back to my detailed consideration of SAP under section 4 of this judgment). Thus it included the time of a senior planning technician, the time of the operations manager, the time of the electrical manager and project manager, the time of the engineer, and Mr Thexton's own time. It is also clear from the interim accounts as well as the final account that the build-up supplied to Capita identified these individuals by name, albeit not by their particular function. Although there was some suggestion in the course of the evidence that their details had been redacted, it is quite clear that this was not the case, and the apparent redactions were simply sections of the spreadsheet where no claim for an enhanced hourly rate was being made. I am quite satisfied that representatives within Capita and Cumbria would have seen and scrutinised these accounts, particularly Ms Keenan, the Capita employee to whom they were sent, that they would have known who these employees were and what their role within Amey and on this contract was, would have been in no doubt that Amey was claiming for the costs of these individuals, and would therefore also have known that they were not what is referred to in quantity surveying language as productive staff, in

other words they were neither direct labour nor supervision. There was no contemporaneous challenge to the legitimacy of including claims for their time in these interim accounts.

- 8.10 The interim accounts also showed the details of the internal and hired in plant, with the internal plant costs being described by vehicle, time spent and hourly rate charged. It is clear that the claims for internal plant costs were made on the basis of the rates provided for by CECA (which as I have previously said applied under the contract to valuations under the SSCC), and there is no reason to think that those who received these interim accounts were not aware of that either. Indeed, as I have said, this was something which was specifically raised by Mr Thexton with Mr Smith at the time, because he was fully aware that the CECA rates produced a substantially higher claim than other rates might do. Although there is no evidence that this was taken with Capita for Cumbria, there is no reason to think that Capita and Cumbria were not also aware that this was the case.
- 8.11 The evidence shows that these interim payment applications were received, scrutinised and paid with no complaint raised at the time. Mr John Robinson was involved from time to time in the process, and raised a number of questions which were answered to this apparent satisfaction. None of these questions raised any point as to the propriety of the monthly paid staff being claimed for as costs or the rates being used for Amey's own plant.
- 8.12 The final account was submitted in October 2009 in a format and with supporting documents as agreed with Capita. Capita and Cumbria adopted the same rather leisurely approach to agreeing the final account as they did to the other Amey claims to which I have already referred, so that although further details were provided on request there was little made by way of progress until a meeting was convened in March 2012 to seek to resolve the final account. At that meeting the Capita representatives reported to Cumbria's representatives that they were satisfied with the final account, save for some minor queries, and there was no dissent from Cumbria's representatives. By January 2010 at the latest the Capita representatives were undoubtedly aware that Amey was using CECA rates and did not object, and Mr Cray as one of those representatives was also present at the meeting in March 2012 in his then capacity as transferred over Cumbria employee. He is recorded as confirming that he was happy with Amey using CECA rates for its owned plant, as opposed to hired in plant, which is what Amey has done. He is also recorded as confirming that he was happy with the principles underlying the claim as advanced. Although Cumbria seeks to contend that the email that he sent out the time made it clear that Amey also needed to demonstrate that the costs had been correctly claimed, that statement only relates in my view to those particular elements of the claim where further information was expressly requested, and there is no basis for contending that it was a qualification of general application. That meeting was also the first occasion at which Cumbria raised a complaint about minor defects, saying that it was going to deduct £2,585 from the final account.
- 8.13 It is also worth noting that Cumbria's internal management review was critical of the procurement route undertaken by Cumbria, and the unrealistic initial budget leading to an increased cost but was not critical of Amey, whether as to the quality of the build or the eventual final financial out-turn.

- 8.14 The clear impression I have received is that if it had not been for the other difficulties and disputes between the parties which had come to pass by March 2012 the final account in relation to Lilyhall would have been agreed and paid without difficulty.
- 8.15 Mr Taft was cross-examined on the basis that he would not, as an experienced quantity surveyor, expect non-productive labour to be included as cost, as opposed to being included within the overhead and profit allowance, in a straightforward cost plus contract. After some verbal fencing, he did accept that this was typically the position. He also accepted that the staff in question in this case were booked to overheads in the highways accounts. However as he said, and as I accept, this is fundamentally a fact sensitive question; there is no rule of law or of quantity surveying custom and practice to this effect; it all depends upon the terms of the individual contract and how the contract was performed.
- 8.16 What is clear in this case is that Amey allocated the time of these 5 monthly paid operatives to the costs claimed for this project, without objection at interim or final account stage, in circumstances where they were clearly directly involved with the performance of the contract including, in Mr Thexton's case, the substantiation of the costs. I am satisfied that there was no clear agreement at the time of contracting as to what was included within cost and what was included within the 15% on-cost. That, therefore, was something which would have needed to be resolved if any issue arose. It clearly was resolved, in my view, during the currency of the contract, and thereafter at final account stage, by Amey clearly and openly including these members of staff in the costs, and Capita and Cumbria accepting and paying for them on that basis. If Capita and Cumbria had wanted to object to that, they should have done so at the time, when it might have been open to Amey to have acted differently, for example by withdrawing those members of staff from the project, or limiting the amount of time they were prepared to sanction those staff spending on the project. However one categorises this in precise legal terms, whether an agreement of further terms by conduct, or a variation of the existing terms, or an estoppel by convention or representation, in my judgment it is clear that Amey is entitled to claim the time of these staff as costs, rather than being forced to incorporate them into the 15% on-cost.
- 8.17 As to the quantification of this head of claim, it is clear that no detailed documentary records are available. However, it is also clear that the interim accounts were submitted by reference to times provided by the staff concerned, based no doubt on their own contemporaneous records and recollection, and again without challenge at the time. Given that I am perfectly satisfied that Mr Thexton, now a Cumbria employee, was an honest and a careful quantity surveyor, and given that I have no reason to doubt the honesty of the care taken by the other staff in providing their times spent on the project, I am satisfied that these interim accounts accurately reflected the position, so that there is no basis for challenging the times claimed.
- 8.18 As regards the dispute about whether or not Amey was entitled to claim for its own plant at CECA rates, in my judgment a similar analysis applies. Again Mr Taft accepted, after some verbal sparring, that he would not typically expect these rates to be used in a straightforward cost plus contract case, but again he made the point, rightly in my view, that this is always a

fact sensitive question. Here, Amey adopted a different approach to hired in plants to that which it adopted to its own plant, and I accept Mr Taft's evidence that there were perfectly good reasons why both Amey and Cumbria might agree, as they clearly did, that it was reasonable for Amey to claim at CECA rates for its own plant, not least because it avoided not only the time and trouble to Amey in having to collate all of these costs, but also the time and trouble to Capita and Cumbria in having to audit them. Again I am satisfied that the claim was made on this basis in an open manner, and accepted by Capita and Cumbria, so that it is not now open to Cumbria to seek to go back on that. The same analysis applies in relation to the car costs of the monthly paid operatives, which again were separately itemised in the interim applications and were, I am satisfied, properly claimed in relation to this contract on the basis of the details which I am satisfied Mr Thexton would have properly collated and submitted at the time.

- 8.19 As to the alleged defects or missing drawings, there is no evidence that these matters were raised contemporaneously as matters of complaint, nor was evidence produced by Cumbria to support the complaints made for the first time in the email sent at around the time of the March 2012 meeting, many years later. The complaints were not accepted at the time, and have been rejected by Mr Smith for reasons given in his witness evidence. Cumbria has failed to provide any proper evidence to show that Amey was responsible for these defects, if that is what they were, or under a contractual obligation to provide these drawings, let alone to quantify its alleged loss.
- 8.20 In conclusion, I am satisfied that Amey's claim succeeds in full, in the net amount now claimed, and that Cumbria's counterclaim should be dismissed.

9 **Item 1 – Sellafield de-trunking (winter)**

- 9.1 The pleaded case is as follows:

“Item 1, Sellafield de-trunking - Winter: £247,577.69

The Council issued a Council Change Request numbered AIS/10 instructing Amey to carry out winter maintenance services to an additional 60.75 km of road in the Cumbria road network. Amey complied with that instruction and claims the increased costs, namely the costs associated with providing an additional gritter to grit the extended network incurred on account of the Change Request.”

- 9.2 As I have already said, the contract included the provision of the winter service, involving the inspection, gritting/salting and snow clearance of the road network comprised within the contract. The details are found in clause 7101AR of the services specification. Paragraph 10 identifies the “approximate total length of primary routes to be treated”, but also says that these “are approximate and will vary as the winter service levels are reviewed by Cumbria each year”. Paragraph 7102AR required Amey to have available a winter service fleet to provide the service, plus a standby fleet of 35 suitable vehicles, to include the provision of all repairs, maintenance and associated costs (clause 7110AR).

- 9.3 The network was defined in the contract by reference to appendix 1/74 as comprising “all county maintained roads”. It is common ground that this did not include motorways or certain trunk routes, which were maintained by the Highways Agency. Paragraph 2 of appendix 1/74 stated that “in addition... there are several routes that are likely to be de-trunked and maintained as... principal routes during the life of the contract”, and the roads the subject of this claim were specifically identifying as falling into this category. In the same way, reference was also made to certain roads which were likely to be excluded during the life of the contract.
- 9.4 The payment for the winter service fell into two parts. The first was an annual lump sum payment, known as the winter basic facility, split between each of the 3 areas of the contract, and payable every month over the specified winter period. There was no express provision for the winter basic facility to be adjusted in any way throughout the lifetime of the contract, other than in accordance with inflation in the same way as all other sums payable under the contract. The second comprised the schedule of rates items for gritting, salting, snow ploughing and the other services to be provided as winter services. Payment under these schedule of rates items was to be made on a rate per vehicle per hour.
- 9.5 It is accepted by Cumbria that there was, as anticipated in the appendix, a change to the network by the addition of a new route the subject of this claim, which had the effect of increasing the network length by 60.75 km with effect from 1 October 2006. Rather belatedly, Cumbria produced a change order request on 6 November 2008 relating to this change, which was accepted by Amey on 15 January 2009. The change order request stated that the financial implications of the change were that the increased estimated workload would result in a further £290,000 payable to Amey. It is clear that this related solely to the payments which would be made through the schedule of rates items for the time it would take to inspect, grit/salt and/or snow clear this additional route. Amey was duly paid under the schedule of rates items for the extra time taken to cover the additional route. It is not suggested by Amey that it claimed at the time that it was also entitled to a revision to the winter basic facility as a result of this change; as I understand it the first time this claim was made was in the final account.
- 9.6 It is Amey’s case that this change also had an impact upon the cost of providing the winter basic facility, and that the appropriate valuation of this change is by way of a re-rating exercise in relation to the winter basic facility. This exercise involves breaking down the winter basic facility rate into its component parts, separating out those which are variable with the number of gritters provided from those which are variable with the network length and from those which are fixed regardless of network length. Amey says that it has ascertained the costs which vary according to the number of gritters, ascertained the rate per gritter using those costs, and then increased the rate by the equivalent of one gritter to reflect the cost of providing the additional gritter which Amey says was required to service the additional route.
- 9.7 Amey’s case is that before the change it used 30 gritters to serve 30 routes, whereas after the change, and in consequence of it, it deployed 31 gritters on 31 routes. Although there has been much dispute as to whether or not there was in fact a change from 30 to 31 gritters, I am quite

satisfied that Amey did in fact use another gritter to service this extra route, although not surprisingly it was not always the same gritter which serviced this particular route.

- 9.8 I fully accept Amey's argument and, insofar as it is a matter for the quantum experts, prefer Mr Taft's view to that of Mr McGoldrick that the winter basic facility includes for costs such as the cost of depreciation of the gritter fleet together with the cost of maintenance and repair of the gritters. I reject Cumbria's contrary argument, and do not accept that the wording of the preamble assists Cumbria's case, because no distinction is drawn in the preamble between the winter basic facility and the schedule of rates items. I also agree with Amey that there is no warrant for treating the time variable rate as having to include all costs which may vary by reference to the distance travelled. It is not apparent, for example, that depreciation, let alone maintenance and repair, relates only to the distance travelled; some element of those costs may vary according to the distance travelled but others, I have no doubt, will not.
- 9.9 Cumbria makes the point that the obvious route for this claim is under the compensation event provisions of the highways special conditions, since what happened in October 2006 was an instruction to increase the network, which was a change to the relevant works information: see clause 46.1.1. Amey has chosen not to advance its case in this way for a very good reason, which is that clause 46.1.23(a) specifically provides that an increase or decrease to the extent of the network is not a compensation event. It is for this reason that Amey is driven to make the claim under the change control procedure of the services agreement.
- 9.10 Cumbria has pleaded (paragraph 3(31) of appendix 4) that this was not a service change within clause 35 of the service agreement. I am unable to accept this argument, given the wide scope of the definition of a service change. In my view the better argument might have been that in circumstances where the event was a service change, and would also have been a compensation event but for the express exclusion in clause 46, then as a matter of construction this must mean that the right to make a claim under the change control procedure is also excluded. It does not seem to me that this argument falls foul of the contractual order of precedence, which is that the service agreement takes precedence over the highways special conditions, because it does not seem to me that this is a case of a conflict between respective clauses, as opposed to a situation where the more directly relevant part of the contract, the highways special conditions, makes it clear that in this specific factual situation the right to recover compensation is excluded. However since this argument was not expressly pleaded or advanced by Cumbria I do not think that it is open to me to find for Cumbria on this basis.
- 9.11 Cumbria does however advance a further case to the effect that if Amey is entitled to recover its costs by reference to the change control procedure it has failed to demonstrate that it has incurred any of the costs claimed.
- 9.12 I agree with this submission. In my view Amey's claim as presented is based on a fundamentally flawed premise, because the simple fact is, and is not in dispute - see for example Mr Taft's principal report at paragraph 49 and Mr Collins evidence in cross-examination, that what Amey actually did, consistent with its obligation under schedule 6

paragraph 5 to use reasonable endeavours to keep the financial implications of any change to a minimum, was not to bring in an additional gritter, but to deploy 1 of the 5 gritters which it held in reserve to service this route instead. Although Mr Taft argued in his report that Amey had no obligation to provide any reserve gritters, that is plainly wrong since, as I have said, it was contractually obliged to provide a standby fleet of 35 gritters. Although in winter service maintenance plans produced by Amey in subsequent contract years, and approved by Cumbria, the number of gritters allowed for was increased or decreased from time to time (with no claim for extra payment under the winter basic facility being made by Amey when the number was increased it should be noted), there was always a certain number of gritters held in reserve.

- 9.13 It follows, in my judgment, that any valid claim here could only be for the additional element of the winter basic facility which reflected the difference between keeping a gritter on standby and using it to service the additional route. That would have involved assessing the extent to which the depreciation, maintenance, repair and other relevant costs of a gritter were increased by the total distance or time spent in gritting the additional route, as opposed to being kept on standby. However Amey has not attempted to advance a claim on this basis, in contrast to the basis by which it has advanced the next claim, item 2. Indeed it has failed to engage with Mr McGoldrick's point that the evidence indicates that this plant was hired in from an associated company at a rate which already included for depreciation, and which was very substantially less than the claim as advanced by Amey.
- 9.14 In conclusion I am satisfied that this claim could have been put forward on a proper basis, but if it had been it would almost certainly have resulted in only a modest extra payment. Instead, it has been put forward on an artificial basis, resulting in a significantly exaggerated claim. I reject Amey's claim on the basis actually advanced and, in the absence of any evidence which would enable me to ascertain a lesser, reasonable amount, am unable to award Amey anything.
- 9.15 I should also say that Cumbria has also contended that Amey's case ignores the fact that in addition to this change request there were other alterations to the network which, overall, caused the total length of the network to decrease. In particular, one existing route, known as the CNDR, was removed entirely by AIS number 7. I accept Cumbria's argument that this would have been another good reason for rejecting claim, since:
- (i) The evidence demonstrates that there were these other changes, particularly AIS/7, which did more than cancel out the increase in the length of the network due to this particular change;
 - (ii) In my view it must follow, consistent with the evidence, that the end result is that there was no need for an additional gritter overall to be provided and, hence, that there were no adverse financial consequences of the change, when seen in the true factual context.
- 9.16 In conclusion, this claim fails and must be dismissed.

10 **Item 2: other de-trunking (scouting / winter)**

10.1 The pleaded case is as follows:

*“Item 2, Other De-Trunking (Scouting/Winter): £107,530.61
By Council Change Requests numbered AIS/09, AIS/11, AIS/12 and AIS/13, Amey was instructed to carry out winter maintenance and night-scouting to additional lengths of road which were to be de-trunked and therefore become part of the Council’s road network. Amey seeks its costs of implementing the Council’s Change Requests.”*

10.2 This claim is in two parts. The first part of the claim is similar in nature to the previous claim, but the significant difference between the two is that, unlike the previous claim, it is not said that the increase in the total length of the network as a result of the relevant change in question led to the need to procure the equivalent of an additional gritter. Instead, what Amey has done is to ascertain the percentage of the total winter basic facility which is purely distance dependent, which it says is 12%, and then to convert that into a cost per kilometre, which is then applied to the extra length in question to produce the claim figure.

10.3 It follows from what I have already said in relation to the previous claim that assuming that schedule 6 of the services agreement applies to such a claim, as I do in the absence of a pleaded case to the contrary, then this is in principle a valid claim. However there are, in my judgment, a number of fundamental flaws in its case.

10.4 The first is the same argument which I accepted in relation to the previous claim, which is that the claim is basically flawed because it seeks to value these changes in isolation and without reference to the fact that overall the total length of the network has fallen. As regards the removal of the CNDR, which reduced the network by 148km, Amey seeks to argue that this did not make any difference, because its vehicles still had to travel that route in order to access the routes to be gritted from the depot. However that, in my view, is an irrelevant consideration; the claim has to be assessed on the basis of the distance to be gritted, because the travelling time from the depot to the start of the route is something for which Amey is deemed to have included in this price.

10.5 The second, connected argument, is that taking the contract network length as the baseline, the total overall length of the network was still no greater than it was at the outset, notwithstanding these individual additions. The only way in which Amey can establish an effective increase is to use a non-contractual assessment of the total network length, and approach for which there is in my view no justification.

10.6 The third is that the claim is flawed in its assessment, because it makes no attempt to separate out and claim for the individual increases in distance due to each increase in the network with effect from the date of the increase. Instead, it seeks to aggregate them the individual increases together and to claim them over a global period which bears no relation to the actual dates involved.

- 10.7 If Amey had been able to overcome these objections, then I would have preferred the figures produced by Mr Taft to those produced by Mr McGoldrick, referring in particular to paragraph 23 of the further joint statement in question. However, it has not, and thus this part of the claim fails and must be dismissed.
- 10.8 The second part of the claim is based on the assumption that the increase in the network length has increased the number of “assets” such as street lights which Amey was required to inspect (or “scout”) as part of the service, with the result that the rate for night scouting should be increased in the same proportion.
- 10.9 However again in my view this claim is fundamentally flawed, for the following reasons.
- 10.10 First, in the same way as the first part of the claim it: (a) takes no account of the overall position, where the total number of assets has not in fact increased overall; (b) adopts the wrong, non-contractual, starting point to ascertaining the number of assets; (c) does not seek to assess the impact of the individual changes.
- 10.11 Second, it does not address the difficulty that the rate for night scouting is a flat rate per route. It is the same flat rate, regardless of the number of assets to be inspected on each route. There is no evidence that the time taken to scout the individual route increased as a result of the changes to the network or, if it did, that there were any additional costs incurred as a result. It is not said, for example, that the labour element of the cost increased due to the scouts having to spend more time on these individual routes.
- 10.12 Whilst I accept, as I have already said, that Amey is not necessarily limited to a claim for additional costs actually incurred, equally in my view in order to justify a change in the rates it must establish some proper basis for showing that there was some genuine impact upon its activities as a result of the change, which justifies a revision to the rates. It has failed to do so in this case. It is, in my view, a purely notional claim which does not properly engage with the obligation under a schedule 6 valuation to assess the financial implications of a change on the basis that Amey is taking reasonable steps to minimise the financial impact of that change. In this case, there is no evidence that there was any adverse financial impact.
- 10.13 In conclusion, this claim also fails and must be dismissed.

11. **Item 3: red diesel - road marking vehicles**

- 11.1 The pleaded case in relation to this and the following claim is, as relevant, as follows:

“Items 3 and 4, Red Diesel Road Marking Vehicles / MEWPs: £184,390.02 and £104,069.18 ... the Council issued Change Order AIS/14 on 11/06/2009. This required a service change in respect of “new legislation regarding the use of red diesel fuel for a number of vehicles uses for the delivery of the contract.” The change in law which was effective from 01/04/2008 required Amey to use white rather than red diesel. This instruction amounts to a Relevant Change in Law pursuant to Clause 33 of the Services Agreement. Amey claims its costs of

utilising the more expensive white diesel as a result of the change in the law in its road marking vehicles and its MEWPs vehicles.”

- 11.2 Thus this item 3 and the following item 4 are closely connected. It is agreed that the change in law was a relevant change of law as defined in clause 33 of the services agreement, which entitles Amey to “seek adjustments to the contract price to compensate for any increase in the net cost to the contractor of performing the services”, to be calculated under schedule 6. It is also agreed that the change in law was effective from 1 April 2008.
- 11.3 The difference between item 3 and item 4 is that since Amey subcontracted its road marking works to a subcontractor known as Gordon Graham, and since it did not (contrary to Mr Taft’s original understanding) provide Gordon Graham with fuel free of charge for the road marking vehicles which Gordon Graham provided to undertake this work, it has been necessary for Amey to advance its claim in relation to road marking vehicles by reference to its assessment of the extra fuel costs which would have been incurred by Gordon Graham from 1 April 2008 onwards. It also contends that its assessment can be demonstrated to be reasonable by reference to a contemporaneous agreement which it claims to have reached with Gordon Graham which included, it says, a 7.5% increase in the rates payable to Gordon Graham to compensate for the impact of the fuel duty change.
- 11.4 In contrast, item 4 is Amey’s claim for what it says was the impact of the change in fuel duty upon the cost of providing mobile elevated working platform vehicles (“MEWPs”), these vehicles being provided and used by Amey itself, so that in relation to this item Amey assesses its claim by reference to its assessment of its own actual extra fuel costs.
- 11.5 In both cases, Amey has claimed an addition for local area overhead in addition to its claim for the extra fuel costs. In both cases, Cumbria disputes the assessment of costs, and also disputes that it is appropriate to add local area overhead to such costs as Amey may establish.
- 11.6 Of the total item 3 claim of £184,390.02, £133,683.77 is said to be the increased cost of fuel, and the balance is local area overhead.
- 11.7 As a preliminary point Cumbria contends that there is no satisfactory evidence that Gordon Graham did in fact use red diesel before the change and white diesel afterwards. Whilst it is true that Amey has not adduced any direct evidence from Gordon Graham as to its practice before and after the fuel change, it seems to me to be wholly unrealistic to suggest that a subcontractor who was permitted to use cheaper red diesel before the change in the law did not do so, unless some reason is advanced as to why it might have chosen not to do so, and none has suggested by Cumbria. I also consider that in so far as there is an evidential obligation on Amey to produce at least some evidence to support its case in this regard, then by reference to the documentation it has provided in relation to its contract with Gordon Graham, and the changes to it, it has done sufficient to surmount this evidential obligation.
- 11.8 Whilst I accept that there are some slightly odd aspects to the contract documents, nonetheless I am satisfied that there is no proper basis for drawing any inference that the contract

documents have been deliberately manufactured or altered in order to pursue this claim nor, indeed, was any such suggestion made in cross-examination or submissions. As regards the schedule produced by Amey I am satisfied that although it may have been post-dated it is nonetheless an accurate record of what was agreed at the time. Thus:

- (1) The original contract between Amey and Gordon Graham contained no express clause permitting the latter to increase its prices in the event of a change in fuel duty, but it did permit both parties to renegotiate the rates each year, so that Gordon Graham would undoubtedly have had the right to seek an increased rate on the basis of a rise in fuel costs and, if dissatisfied with Amey's response, to decline to undertake further work at the existing rates.
- (2) The further (unsigned) services agreement for road marking activities includes some revised terms; in particular a new 3 year fixed term contract with provision for rate increases in accordance with the RPIx and for "increased costs associated with the removal of the Hydrocarbon Fuel Duty Exemption".
- (3) The further schedule purports to record an increase of 7.5% for fuel tax. However, this schedule appears to be no more than a record that 7.5% was specifically agreed for fuel tax, because it records a 12.2% rate increase overall, of which 7.5% is said to relate to fuel.

11.9 On that basis the balance of 4.7% would have to be attributable to an increase in the RPIx in that year. The printout from the Office of National Statistics which was produced in cross-examination of Mr Taft would appear to justify some increase by reference to the increase in the RPIx in that period, but not as much as 4.7%. As I have said, whilst I have some reservations as to how much weight I can place on this schedule as a purported contemporaneous document, nonetheless I am on balance satisfied that there was an increase of 7.5% to compensate for the change in fuel duty, and that this schedule does record that this is what happened. It does not seem to me to be surprising in the circumstances that Gordon Graham would have wanted Amey to agree to cover these substantial increased fuel costs, or that Amey would have been prepared to do so.

11.10 However, as I have said, the claim as advanced by Amey is not based on the 7.5% increase but, instead, on a calculation of the difference between the cost of red and white diesel, produced by multiplying the price difference by a figure arrived at by dividing the total distance travelled by Gordon Graham's road marking vehicles in connection with the Cumbria contract in each year from 1 April 2008 by the fuel consumption rate of the road marking vehicles used by Gordon Graham.

11.11 Although Amey has more recently produced evidence from Gordon Graham which would appear to substantiate the distance travelled, the calculation still rests on certain assumptions, particularly: (a) the proportion of distance travelled in connection with the Cumbria contract as opposed to other work; (b) the fuel consumption rate of the road marking vehicles.

- 11.12 As to the former, Cumbria complains that there is no satisfactory evidence to justify the percentage figure of 85% used. In fact there is some evidence from Gordon Graham confirming that its turnover from Amey accounted for 85% of its total turnover. Although Cumbria makes the point that turnover is not the same as costs, it is to me to be a reasonable inference that there is a reasonable correlation, all things being equal, between the two, and on balance I am satisfied that this is sufficient to justify the 85% figure.
- 11.13 As to the latter, Cumbria complains that Amey has failed to provide any information as to the fuel consumption of the vehicles, and relies upon the alternative assessment provided by Mr Melville in his witness statement. On balance, I accept that in the absence of any positive evidence in rebuttal from Amey, the only safe course is to adopt Mr Melville's assessment as being a recent assessment from someone who could be expected to have knowledge of such matters.
- 11.14 I also accept that a calculation derived from the 7.5% rate increase demonstrates that Amey's calculated figure is reasonable, since it is lower than the figure derived by that calculation; see the summary calculation provided by Mr Taft at paragraph 5 of the matters not agreed in the further joint statement (pages 18-19).
- 11.15 Adopting, therefore, this analysis, the claim for fuel costs alone would fall to £46,195; see the summary at page 5 of the further joint statement.
- 11.16 Cumbria argues that it is not appropriate to adopt this analysis, in circumstances where it says that it was incumbent on Amey to prove its case by reference to the actual additional fuel costs incurred by Gordon Graham on this contract and passed on to Amey. I reject this argument. I am satisfied on the evidence now before the court that in fact the increased fuel cost was passed on, and I am also satisfied that Amey has provided evidence which is reasonably sufficient for the additional cost to be ascertained. It should be borne in mind that what ought to have happened was that these fuel costs should have been ascertained at the time by the quantity surveyor representatives from Amey and from Capita/Cumbria, acting in a reasonable and sensible way, and applying schedule 6 in a cooperative manner. I have already noted that Cumbria dragged its feet, in my view, in relation to these additional claims. It is not appropriate in my view to expect Amey now to have to provide the same degree of evidence in support of a claim such as this one as it would, for example, have been expected to provide for a very substantial damages claim where it was on notice from the outset that it was contested on every possible basis. In my view the misplaced emphasis put by Cumbria on the contract as permitting only the recovery of direct substantiated costs has led it, and Mr McGoldrick, to apply too restrictive an approach to this claim.
- 11.17 The further issue which then arises relates to the addition of local area overhead. Mr Taft has agreed that it is not appropriate to include any profit element, and has thus agreed that the 3.5% profit element within the 9% fee should not be claimed. In my view however, Cumbria is correct in its submission that it is not appropriate to allow any local area overhead addition. That is because clause 33 provides, as I have said, that only the increase in the net cost of performing the services should be recovered. Although there is no definition of net cost, it

seems to me that in context this means not only net of profits, but also net of overhead as well, unless the claim in question is 1 where Amey is able to show that it has incurred an extra overhead as a result of the change. In this case, given that it is a cost incurred by a subcontractor, with no indication that it was passed on with any additional overhead allowance, and no indication that Amey incurred any additional overhead in processing it, there is no basis in my judgment for allowing Amey to add local area overhead to that cost.

11.18 I therefore award £46,195 under this item.

11.19 For completeness, I should say that insofar as Amey still relies upon its pleaded case that it has allocated the payments on account made by Cumbria to this claim, I do not accept that this would entitle Amey to argue that it is entitled to treat that payment as, in some way, conclusive as to its entitlement to the full amount claimed. There is no evidence that Cumbria made any express or implicit admission as to the full amount of this claim when making the payments on account. This is very far from the paradigm case of a creditor, owed a number of undisputed invoices by a debtor, being entitled to allocate an unallocated payment on account by the debtor to an invoice of its choice.

12. **Item 4: Red diesel – MEWPs**

12.1 There is a substantial dispute between the parties as to whether or not Amey was in fact using red diesel in its MEWPS prior to the change in the law. The witness evidence on this point paints a confused picture.

12.2 There was some dispute as to whether or not MEWPS could properly be fuelled with red diesel as road construction vehicles because, it was said by Cumbria, as well as being used to repair street lights – their intended purpose, which it is accepted would qualify – they were also used at Christmas to hang decoration lights in certain town centres which, it was said, would not. That, in my view, was always a hopeless argument to run, because even if that was not a road construction activity the only consequence would have been that technically the MEWPS engaged on that task would not, strictly speaking, have been entitled to use red diesel whilst doing so. Cumbria argued that to comply with the law it would have been necessary to drain and completely flush the fuel tank of red diesel before undertaking this task and that Amey had not provided any documentary evidence of this. Cumbria submitted that this showed that red diesel was not being used before this operation was carried out. However it would have been a counsel of perfection to have insisted on this being done, and there is no evidence that anyone within Amey at the time was so alert to the implications of this potential transgression that they would have insisted that it be done. In my judgment this whole argument is completely unrealistic, and I reject it.

12.3 The further point which was raised was that the Amey operatives who used these MEWPS would have chosen not to fill them with red diesel because they used them to drive to and from home as well as on work duties. However Mr Collins confirmed, and I accept, that Amey's policy was not to allow drivers to use these vehicles for personal use, and there is no evidence from the individual operators to the effect that this directive was routinely ignored

with the consequence that they only used white diesel. Indeed, if they were breaking company policy by taking these vehicles home overnight, it is extremely unlikely that they would also have been so scrupulous to insist that only white diesel was used in these vehicles, in case they happen to be stopped by someone checking what was in the fuel tank, and whether they were entitled to use red diesel whilst driving along that particular road at that particular time. Again in my view this is a completely unrealistic argument.

- 12.4 As to the evidence of the operatives as to what they did, the picture was so confused because the recollection of the operatives differed so much. On reflection this is not as surprising as it might at first seem. The change occurred in April 2008, now over 8 years ago. The lapse of time would in itself affect recollections. Furthermore, at about the same time there was a change to the fuelling system used by Amey, because a new fuel monitoring system known as “Fortress” was introduced, which provided drivers with fobs which only permitted them to use the correct type of fuel when refuelling from the fuel tanks located at the Amey depot. On balance it seems to me that those operatives whose evidence was that they always used white diesel were confusing the position pre-April 2008 with the position after the new fuel system came into place, enforced as it was by the allocation of these fobs. I did not regard any of these witnesses as having an extremely clear recollection now as to what happened when. Again this is not surprising; whilst as I have said I accept they were all witnesses doing their best to recall what happened many years ago, none of this was of any great significance to them personally, because they were not personally paying for the fuel which was used in the MEWPS.
- 12.5 I place greater weight in the circumstances on the contemporaneous documents produced by Amey, which tend to show that before the change the company guidance was that red diesel should be used where permissible - as one would expect, given the cost savings to Amey of so doing - and the undoubted fact that this guidance subsequently changed in accordance with the change in the law.
- 12.6 I do accept Cumbria’s complaint that Amey has failed to provide documentation which would have been able to prove its case beyond any doubt, particularly documentation which would have evidenced red diesel usage in MEWPS prior to the change, and white diesel subsequently, and documentation such as maintenance records which would have evidenced that a campaign of flushing fuel tanks of red diesel occurred at the time of the change. However, since the new fuel monitoring system did not come into place until after the change in the law, it is perhaps not as surprising as it might otherwise have been that Amey has been unable to provide these records. Again, I must bear in mind that at that time there is no indication that anyone within Capita or Cumbria was seriously contesting that Amey would have changed its use from red diesel to white diesel in relation to these MEWPS, so that there would have been no particular reason for Amey to think that it would need to obtain this level of proof in relation to this claim.
- 12.7 On balance, I am satisfied that it was Amey’s policy to use red diesel prior to the change in relation to these MEWPS and, save perhaps for some isolated exceptions or practices, it did do so, whereas afterwards it used white diesel to comply with the change in the law.

- 12.8 So far as the quantification of the claim is concerned, the experts have helpfully agreed the fuel consumption figures and the fuel cost differential. Apart from an issue as to whether or not the mileage was previously incorrectly believed to have been recorded in kilometres, as to which I accept and prefer Mr Taft's evidence, the mileages are also agreed.
- 12.9 In the circumstances, I am satisfied that the true value of this claim is £85,396.78 (option 3 in the figures as figures agreement at page 24 of the further joint statement), although Amey's claim is limited to the pleaded claim of £75,451.72, excluding local area overhead. For the same reasons as given in relation to item 3 above, I am satisfied that there is no basis for adding local area overhead or that the payments on account argument has any merit and, accordingly, the amount awarded under this item will be £75,450.72.

13 **Item 6: Landfill tax**

- 13.1 Amey's pleaded case is as follows:

"Item 6, Landfill Tax: £898,485.45

With effect from 01/04/2008 the Government changed the rate of landfill tax. Thereafter on 11/06/2009 the Council issued Change Order AIS/16. This claim amounts to a Relevant Change in Law pursuant to Clause 33 of the Services Agreement.

In pre-action correspondence the Council has accepted the principle of this claim but questions the quantum and in particular an alleged lack of substantiation and disputes the application of Amey's LOH.

Amey has provided sufficient supporting documentation (see quantum annexure at Schedule 2 hereto) and is entitled to payment of its LOH claimed and in the premises the sum of £898,485.45 remains due and owing to Amey."

- 13.2 This claim is, therefore, like the preceding claims, advanced under condition 33 and schedule 6 of the services agreement. It is based on the undisputed fact that as from 1 April 2008 there was a substantial increase in the rates of landfill tax to be paid on waste disposed of in landfill, there being 1 rate for inert waste and a much higher rate for active waste. It is common ground that this fell within the definition of a relevant change in law and also that in June 2009 Cumbria issued the change order request referred to above, which was accepted by Amey.
- 13.3 The dispute between the parties is as to the quantification of the claim. In summary, Amey has produced and relies upon what is, in substance, a very substantial re-rating exercise, where it has: (a) identified all of the schedule of rates items where as part of the works comprised within that item Amey would need to dispose of waste; (b) extracted from each of those items its assessment of the amount of waste disposed; (c) assessed the cost of that waste disposal; (d) ascertained the extra cost of that disposal attributable to the increase in landfill tax; (e) calculated its claim on the basis of that extra cost multiplied by the actual quantities for the schedule of rates items in the years from 1 April 2008 to the end of the contract.

- 13.4 Cumbria's case, in summary, is that this is a notional and deeply flawed exercise which bears no resemblance to reality because it is dependent upon a significant number of unverified assumptions. Cumbria's case is that what Amey should have done, which it says it asked Amey who agreed to do it at the time, was to ensure that it obtained, collated and retained all invoices relating to landfill disposals, both direct disposals and disposals by subcontractors, from which it could identify the actual increase in the cost of landfill tax and make a genuine costs based claim for the increase over the remainder of the contract.
- 13.5 Cumbria also raises the same objection as with the preceding items as to whether or not Amey is entitled to add local area overhead.
- 13.6 As a preliminary matter, I accept Amey's submission that insofar as Cumbria places any reliance on Mr Rollitt's evidence to the effect that Amey did not dispose of waste in landfill but, rather, dumped it in quarries, I wholly reject that evidence, for reasons already given as regards the reliability of his evidence.
- 13.7 Amey's starting point is that there is no reason why its claim should be limited to additional landfill tax paid, rather than making – as it has – a claim on the basis of a change to the relevant schedule of rates items which is not necessarily limited to the cost of additional landfill tax. It makes the point that one reason why government decided to increase landfill tax so substantially was to change behaviour by encouraging businesses to increase recycling or other more environmentally friendly waste disposal activity. Insofar as Amey did change its behaviour and increase its recycling efforts it would, it says, be entitled to have the cost of that exercise reflected in the adjustment under condition 33.
- 13.8 Whilst I accept that in principle Amey would be entitled to include any additional recycling costs incurred as part of its claim this point does not really assist Amey in this case. Given that condition 33 is directed at adjusting the contract price to compensate for the increased cost of performing the service as a result of the change in the law, I accept there is no reason why Amey should not include in its claim for the cost of any recycling costs. However this does not of itself justify a hypothetical re-rating claim as opposed to a costs based claim. Indeed, the re-rating exercise put forward by Amey is still based on the assumed additional cost relating solely to the increased cost of landfill tax, as opposed to an overall assessment of all of the additional costs incurred as a result of the change in law.
- 13.9 Nor do I accept Amey's argument that the parties always intended and envisaged that the increase in landfill tax be dealt with by way of a wholesale revision of the relevant schedule of rates items. I accept that this potential option was raised in discussions as a way of spreading the costs into individual works instructions going forwards, as being preferable from a budget point of view than landing Cumbria with a large lump sum claim, but I am satisfied from the documentary evidence that there was never any concluded agreement that the claim should be presented and valued in this way, with retrospective effect, rather than by reference to actual costs incurred, even if no agreement was reached. Nor for that matter do I accept Amey's argument that the contract required the valuation to be undertaken in this way. Condition 33 simply requires the net cost to be ascertained, and schedule 6 is neutral as to

whether that should be by way of a lump sum claim or an adjustment to the pricing schedule: see paragraph 4.3 of schedule 6.

- 13.10 As to the individual steps in the process undertaken by Amey, summarised in paragraph 410 of Amey's closing submissions, Mr Taft was cross-examined with effect as to the untested assumptions inherent in each of these individual steps. It is clear that they are not his assumptions, nor has he been able to verify them from his own knowledge or expertise. It is also clear that none of these assumptions are verified in evidence by Amey's witnesses of fact. For example, in cross examination Mr Taft was taken to the claimed re-rates for gully cleansing, from which it became apparent that a number of very significant assumptions had been made, apparently by Amey's commercial team, without any independent assessment by Mr Taft as to the reasonableness or reliability of those assumptions. All that he had done was to undertake a generalised review of the calculations produced by Amey, as opposed to the assumptions behind them. There were a number of unverified and un-evidenced assumptions for example as to the average depth of waste found in the gullies, as to the dimensions of the different types of gully, as to the different types of waste found in the gullies, and as to the densities of those different types of waste material. Variations in these assumptions have the potential to affect quite considerably the overall claim.
- 13.11 Mr McGoldrick was asked about Amey's claims. He gave what seemed to me to be convincing evidence. He made the point that what had been done was not a re-rating exercise properly so called, because Amey had provided no breakdown of the existing allowances for landfill tax in the existing rates and then compared that with the actual cost of landfill tax due to the change in law. Instead, what Amey had done was simply to add the hypothetical extra cost to the existing rate. He identified the large number of untested assumptions and variables in the claim, to which I have already referred. He also noted that there was no backup material to support the assumptions made as to what was in the tender. He also noted that there were discrepancies between the schedule of assumed tipping proportions and his own assessment of the records.
- 13.12 It was a major plank of Amey's case, and it was Mr Taft's evidence, that the assumptions made by Amey could be shown to be correct by reference to the "reality checks" which Amey said that it had undertaken. However, I accept Mr McGoldrick's evidence that of these only the first three are even arguably relevant and that even in relation to those there are very significant untested assumptions included within them. I also accept Mr McGoldrick's evidence that these checks are not consistent with the calculations he undertook based on his analysis of SAP. In short, I do not accept that these so-called reality checks significantly support Amey's case in any material respect.
- 13.13 Amey criticises Mr McGoldrick for failing to provide his own figures, for example for density factors. However it does not seem to me that it is fair to criticise Mr McGoldrick for failing to provide an alternative calculation in relation to an exercise the essential validity of which he does not accept. Amey's criticism of Mr McGoldrick in relation to this claim seems to me to be similar to Cumbria's criticism of Amey's statistical expert for failing to suggest a valid

random sampling exercise as regards Cumbria's patching and surfacing claims, which I address later, and reject.

- 13.14 In the circumstances, I am unable to accept the method adopted by Amey for valuing its claim as a valid valuation method. It seems to me to suffer from too many untested assumptions and speculations and to be not sufficiently based on an assessment of actual costs.
- 13.15 However this does not of itself mean that Amey's claim fails in its totality, because I must also consider whether or not Amey has been able to establish some or all of its claim by reference to some acceptable evidence.
- 13.16 It is obvious in my view that Amey could and should have retained invoices which it has received and paid for disposing of waste to landfill. Indeed, it has done so as regards its own direct disposals. A number of these invoices specifically identify the amount of landfill tax paid in relation to the disposals in question, so that it is relatively easy to ascertain the increase in tax as regards those invoices. There appears to be some dispute between the parties as to the amount of tax paid, but I prefer Mr Taft's starting point of £24 per tonne, and thus agree that the amount to question is £146,028.02; see the further joint statement at paragraph 25.
- 13.17 It appears that the remainder of the invoices, approximately 70% of the total, do not separately identify the landfill tax paid, so that the same exercise cannot be done purely from the invoices themselves. Cumbria says that Amey could and should have asked the waste site operators to provide a breakdown. It relies upon the evidence of Mr Preston to the effect that by the time he was asked to obtain these details a number of operators, typically the smaller operators, failed to respond, perhaps not surprisingly so long after the event. However, I accept Mr Taft's evidence that it was possible, by looking at the invoices as a whole, to identify with some confidence the proportion of cost relating to landfill tax and, thus, the amount of the increase. He assessed this as amounting to £261,048.82; page 30 of the further joint statement. Although Mr McGoldrick said that as at the date of the further joint statement he had not had time to consider this calculation, it did not appear that he had undertaken any further investigation by the time he came to give evidence, or that he had any strong basis for contesting the calculation, and I see no reason not to accept Mr Taft's assessment.
- 13.18 In its list of suggested obvious errors Cumbria contends that there is a fundamental inconsistency between my findings in paragraph 3.12 and my findings in paragraph 13.17, because the invoices referred to in paragraph 13.17 above are the same invoices relied upon by Amey and Mr Taft as part of the "reality check" which I rejected in paragraph 13.12. However the purpose of relying on the invoices as part of the reality check was to seek to support Amey's re-rating exercise, where the flaw was that they did not support the assumptions made by Amey in arriving at its re-rating exercise, because apart from the first three contractors it appeared that the majority of waste went to recyclers who may or may not have disposed of some or all of the waste as landfill.

- 13.19 In contrast the evidence of Mr Taft, which as I said in paragraph 13.17 I accept, was that even where the waste may have been recycled as opposed to being disposed of as landfill nonetheless he was able to ascertain a close correlation between the gross value of those invoices and the gross value of the invoices where landfill tax was separately shown. I refer to his evidence on day 34 at page 148 onwards and on day 55 pages 5-8. Accordingly his view which I accept, was that even if the extra cost related to the extra cost of recycling, in contrast to the extra cost of the increase in landfill tax, nonetheless it was recoverable as a cost incurred as a result of the increase in landfill tax. As I said in paragraph 13.8 above, this claim is in principle maintainable, even though it was not relevant to the primary re-rating claim advanced by Amey which I rejected. Thus I decline to correct paragraph 13.17 or thus the following paragraphs below.
- 13.20 As regards the subcontractor landfill disposal costs, it appears that Amey has failed to obtain any relevant records to identify the amount of waste sent to landfill or the tax paid on that waste. This is notwithstanding that this element appears to be approximately 60% of the total claim. This is also notwithstanding that Mr Collins referred in his second witness statement, at paragraph 44, to Amey's environmental service delivery plan, to the routine use of documents such as waste transfer notices and controlled waste transfer notices to record the amount of waste removed, to audits undertaken by Amey, and to its employment of an environmental manager to manage the process. It seems to me to be extremely surprising that in such circumstances Amey has been unable to provide any evidence to substantiate this significant element of its claim, when it must have known from the outset that it was necessary to do so.
- 13.21 In the further joint statement Mr Taft made some attempt to quantify this element of the claim by an alternative basis. However in my view in the absence of any evidence of actual landfill costs in relation to these operations there is no proper basis for accepting that alternative basis. Unless the subcontractors in fact passed on the increase in landfill tax to Amey, Amey would incur no additional cost. Since Amey's sub-contracts were not said to have been entered into on a cost plus basis, as opposed to a fixed rate basis, the only way in which that could happen would be if the rates were increased to reflect the increase in landfill tax. As was explored in cross-examination of Mr Taft, there is no supporting evidence to the effect that there was a change in the relevant subcontractors rate at the time of the landfill tax increase, in contract for example to the position in relation to Gordon Graham's costs for the road marking vehicles red diesel claim. At the time, I am satisfied, there was severe pressure on all contractors to keep their rates competitive. I am not satisfied that I can infer, in the absence of any evidence, that Amey did in fact pay its subcontractors an extra allowance to reflect the amount of the landfill tax increase, whether in the amount suggested by Mr Taft or in any other reasonably ascertainable amount.
- 13.22 In the circumstances I am satisfied that Amey has made out a case for recovery of the additional landfill tax element of the landfill invoices it has disclosed in the total sum of £407,076.84, but no more than that.
- 13.23 Although Cumbria contends that it is not open to Amey to recover on this basis, since it advanced its claim on a basis of claim which it submitted and which I have agreed was

misconceived, nonetheless in my view there is no reason why Amey should not recover its costs on this basis, where it is the basis put forward by Cumbria as appropriate and where there is sufficient material to allow me to do so. However I do agree with Cumbria that, for the same reasons as given in relation to the previous claims, there is no justification for allowing Amey to recover local area overhead in relation to this condition 33 claim.

- 13.24 Finally, insofar as it was pursued, I reject Cumbria's argument that it is entitled to a credit to reflect what it says was a prior overcharge in relation to landfill tax in the earlier years of the contract. It is clear that Amey has charged no more than the agreed contract rates, and no claim has been pleaded or advanced by Cumbria on the basis that it is entitled to some form of restitutionary relief in such circumstances, nor is any such claim obviously apparent.
- 13.25 In the circumstances, I allow the claim in the sum of £407,076.84.

14. **Item 8: Increased employer national insurance contributions**

- 14.1 The pleaded claim is as follows:

*“Item 8, Increased Employer National Insurance Contributions: £77,362.66
The Finance Act 2011 which came into effect as from 01/04/2011 increased the rate for employer's national insurance contributions by 1% for Amey's employees' salaries and benefits. Amey seeks reimbursement in respect of additional national insurance contributions paid pursuant to its Contractor's Change Request dated 10/02/2012 and to be assessed as a change under the Change Control Procedure at Schedule 6 of the Services Agreement. By its letter of 03/07/2012 the Council accepted the principle of the claim and that a sum of £58,756.48 was owing to Amey. That sum has not been paid to Amey and in any event the larger sum of £77,362.66 is in fact owing.”*

- 14.2 In its defence Cumbria pleaded in terms (see paragraph 2 (2) of Appendix 11) that Schedule 6 did not apply. That is because under condition 33 the change in the law would have to fall within the contract definition of a “specific change of law”. However, the definition of that phrase specifically excludes “changes in generally applicable employment, national insurance or pension law where such changes apply to the contractor's employees”. It followed, said Cumbria, that the change fell within the definition of a “general change in law”, as to which: (1) condition 33.3 excluded the possibility of any adjustments to the contract price; (2) clause 46.1.18 of the highways special conditions allowed a claim to be made where “a change in law occurs after the tender date and which affects the contractor's tender, unless the change and its effects could reasonably have been foreseen by an experienced contractor prior to the tender date”; (3) Amey cannot establish that it could not reasonably have foreseen a change in the rate of national insurance contributions.
- 14.3 In its reply to defence, whilst Amey maintained its primary case, it made it clear that it was advancing the claim as an alternative as a compensation event claim under clause 46 of the highways special conditions. Cumbria has not contended that it is not entitled to do so.

- 14.4 In my judgment, Cumbria is plainly correct in its submission that it is not open to Amey to advance this claim under condition 33 and schedule 6. Thus the question is whether or not Amey can advance this claim as a compensation event.
- 14.5 Amey's case is that the question is not whether or not any change in national insurance contributions could have been foreseen, but whether as at the time of the contract an experienced contractor could have foreseen the actual 1% rise in employer contributions which occurred in 2011. As to that, it says that the answer is plainly no, because as at the date of the contract the previous changes had been only a 0.1% decrease in 2002, a 0.3% decrease in 2001, and a further 1% increase in 2003, and there was no reason to forecast any further increase of 1% in 2011.
- 14.6 Cumbria's case is that the question is whether any change such as that which in fact occurred could be foreseen, in which case the answer is undoubtedly yes, given the history of changes in employer contributions as summarised in the Rejoinder and in its closing submissions.
- 14.7 In my view the question is primarily one of construction. The starting point is that Amey is entitled to make a claim for the impact of a change in the law, unless the proviso applies. I consider that Cumbria is plainly right when it submits that, in the context of a 7 year contract, some change to national insurance employer contribution rates is reasonably foreseeable within that 7 year period, given the history. However, in my judgment, on a proper construction of the words of the clause, foreseeability of a change or changes over the duration of the contract is not sufficient. The clause requires that both the change and its effects could reasonably have been foreseen; in my view the question, therefore, is whether or not as at the time of entering into the contract the hypothetical experienced contractor could have sufficiently foreseen both the change and its effects to be in a position to make some sensible financial provision for it in its tender. That would not be possible if all that the contractor could have foreseen was some general possibility of some general increase or decrease at some point or points over the duration of the trial. In contrast, an example of a change which would fall within the definition would be where government had already announced in the autumn 2004 budget an intention to increase the contribution rates in the spring 2005 budget. In my view this construction of the clause makes commercial good sense; otherwise tenderers would have to include in their tender sufficient allowance for what might happen, but where it would be almost impossible to predict whether they would happen, and if so when or in what amount, over a 7 year duration.
- 14.8 Adopting that construction it seems to me that it cannot properly be said that in 2005 Amey could have forecast the 1% increase which actually occurred in 2011. Accordingly, I am satisfied on the evidence that Amey is entitled to advance its claim as a compensation event under the highways special conditions.
- 14.9 As I have already said, I am satisfied that the valuation of the compensation event is governed by clause 49.1.1 of the special conditions, unless one of the alternatives in clause 49 applies, by agreement or otherwise. Here, it is not said that any alternative does apply, and it follows that the valuation required by clause 49.1.1 must apply. As I have also already said, the

definition of actual cost means that the valuation process must be undertaken by reference to the SCC.

- 14.10 The quantum experts have addressed the valuation of this claim as a compensation event in their reports and in the further joint statement at page 32 onwards. There are a number of small disputes, where Mr McGoldrick has proceeded on the basis that the valuation can only be done by reference to the payroll data with which he has been provided, whereas Mr Taft has proceeded on the basis that discrepancies between Amey's case and payroll data can be resolved by explanations provided to him by Amey. Given that Amey's stance had been to refuse to provide Mr McGoldrick with background information when he asked for it (see his point 4), and given that Amey has not led evidence on these points, I am satisfied that I should accept Mr McGoldrick's approach, save only that it is common ground that Mr Foote's time on the contract should run to June 2011. The end result, as I calculate it, is that the net cost of the increase is £55,154.61.
- 14.11 Finally, there is a dispute as to whether or not the 23% working area overhead uplift to people costs, provided for by paragraph 44 of SCC, should be added. Mr McGoldrick's view is that this should not be added, because no additional overhead costs could have been incurred as a result of the change to the employer's national insurance contributions. Mr Taft's view is that this is irrelevant, because the SCC requires the addition of this uplift without the need to prove any actual increase in overhead. I agree with Mr Taft on this point; the advantage to both parties of using the SCC and, hence, applying this standard uplift, is to give certainty and to avoid the need for contractors to have to undertake this sort of detailed analysis, even if it might in certain cases result in an allowance for overhead greater than the actual costs which can be shown to have been incurred. It is common ground that, again as required by the SCC, the 9% fee is added to the subtotal. My calculations show that adding the 23% uplift the figure is £67,418.63, and then adding the 9% fee the figure is £73,945.79, which is the amount I award to Amey under this claim.

15. **Item 12: Better Highways rate**

- 15.1 The pleaded claim is that Amey is entitled to be paid a total of £10,114,216.80 in respect of Better Highways works, of which there is an unpaid balance of £5,001,081.73. It is said that the Better Highways model was a fundamental change, which led to significantly increased costs. It is said that "the approach utilised new teams with significantly increased responsibilities including interaction with members of the public, network inspection design solutions, works planning, greater reporting and carrying out repairs over a wider range of routine or cyclical activities". The re-amended particulars of claim made reference to change request AIS/23, but did not specifically plead the legal or contractual basis of the claim. However in the re-amended reply it was clarified that Amey relies upon clause 45.1.4 of the highways special conditions, and the SSCC, as opposed to relying upon a change order or a compensation event, in asserting that it is entitled to payment on the basis of a daily Better Highways team rate of £922.83 from August 2010 until the end of the contract.

- 15.2 Cumbria’s pleaded case, as set out in Appendix 15 to the amended defence and counterclaim, is that the Better Highways team rate should be the same as the highways response team rate, together with payment of actual costs for materials and special equipment. In paragraph 46 of its original pleading it put Amey to “strict proof and/or justification” of the individual components of the claim.
- 15.3 This element of the claim raises a number of separate issues which I shall address in the following order:
- (a) What is the appropriate rate for the Better Highways teams?
 - (b) A separate rate for the trial period or roll-out period?
 - (c) Valuation under the SSCC.
 - (d) Valuation under the SCC.
 - (e) The number of Better Highways team days worked.
 - (f) The part one better highways items.
 - (g) Overall position.
- (a) What is the appropriate rate for the Better Highways teams?
- 15.4 The first question to determine is whether this claim should be valued under clause 45 of the highways service conditions (invoice price of works instructions for routine and cyclic maintenance) or clauses 46 to 49 (compensation events). Amey contends for the former, whereas Cumbria contends for the latter. The second question to determine is the precise basis of valuation under either clause 45 or clause 49. Amey’s straightforward position is that the valuation should proceed under clause 45.1.4. Cumbria’s position, which involves rather more permutations, is as follows:
- (a) If clause 45 applies, which is not Cumbria’s primary position, the valuation should be under 45.1.2, which applies where there is a change to the quantities but an appropriate rate or rates in the highways pricing schedule which can be used.
 - (b) If clause 45.1.4 applies, it should be on the basis of a new rate.
(However, I have already held, contrary to this argument, that clause 45.1.4 requires the valuation to be undertaken in accordance with the SSCC.)
 - (c) If clause 49 applies, which is Cumbria’s primary position, then the valuation should be under clause 49.1.3, which is to the same effect as clause 45.1.2.
 - (d) Alternatively, the valuation should be under clause 49.1.1, which requires the actual cost to be assessed under the pre-compensation event position and the post-compensation event position and the difference, plus the 9% fee, to be allowed.
- 15.5 It follows that the first issue to be determined is whether clause 45 or clause 49 should apply. It is common ground, and I am quite satisfied, that the works instructions placed for Better Highways teams were works instructions for routine and cyclic maintenance. The natural inference, in my view, is that one would expect clause 45 to apply.
- 15.6 However Cumbria submits that the instructions contained in AIS/22 and AIS/23 amounted to instructions which changed the works information and gave rise to a compensation event. Cumbria refers to the definition of works information as being “information which specifies

and describes the works and/or states any constraints on how the contractor provides the works, and is either (a) in the documents which the contract data part 1 states it is in; or (b) in an instruction given in accordance with this contract”. The contract data part 1 provides, at paragraph 1.8, that “the works information is in an individual works instruction and the relevant related information within the highways specification and the highways appendices”. Cumbria argues that the instructions to provide Better Highways teams in place of highways response teams (or the area highways teams as their successors) to perform the functions specified in the revisions to clause 3302AR and appendix 38/5 were instructions which changed the works information. It follows, submits Cumbria, that this was a compensation event under clause 46.1.1 (“the overseeing organisation gives an instruction changing the works information”), the financial consequences of which should be ascertained in accordance with clause 49.

- 15.7 Amey’s submission is that this cannot be a compensation event, particularly because of the express provision in clause 45.1 and again in clause 46.11 23(b) that a change to a works instruction for routine and cyclic maintenance is not a compensation event.
- 15.8 Cumbria submits that this is irrelevant, because the instruction to implement Better Highways could not in itself be a change to an existing works instruction.
- 15.9 In my view, Amey’s argument is to be preferred for the following reasons.
- (1) The definition of works information in the contract data part 1 as being the “works instruction and the relevant related information within the highways specification and the highways appendices” (emphasis added) means, in my view, that a generic instruction to change the highways specification or highways appendices in relation to work instructed in the future under works instructions yet to be issued, as opposed to a specific instruction relating to an existing works instruction or series of instructions, does not fall within clause 46.1.1. Instead, such instructions amount to change requests under Schedule 6 of the services agreement, and are to be dealt with under that part of the contract.
 - (2) The end result is that a change to the works information as defined in the highways special conditions is the same for all practical purposes as a change to a works instruction. It follows that Amey’s interpretation of clauses 45.1 and 46.1.23(b) is obviously correct. This also make sense of clause 45.1.4, which could only really apply where the instruction involves Cumbria instructing something to be done which is not already within the scope of the existing highways pricing schedule and hence not already catered for by the existing highways specification and the highways appendices.
 - (3) None of this causes any prejudice to Cumbria. If Cumbria only instructs a change to an existing works instruction the change is valued in accordance with clause 45. If Cumbria wants to make a more fundamental change going forwards, then it can use the change request procedure and, in this way, can avoid the consequences of being stuck with a SSCC valuation for changes to future works instructions.

15.10 If I was wrong in this interpretation I would need to consider the consequences of Cumbria's argument. Cumbria could not credibly submit that the works instructions instructing Amey to undertake Better Highways works were themselves instructions changing the works information; that is because of clause 46.1.1(b) - an instruction changing the works information is not a compensation event if the instruction is itself a works instruction. This explains why Cumbria is forced to contend that the May 2011 change requests were themselves instructions changing the works information. There are, however, insuperable difficulties in my view with this argument:

- (1) The documents relied upon purported to be change requests, rather than instructions changing the works information. Cumbria would have to argue that insofar as they were accepted in terms of their content as regards the varied scope of the works, even though they were not accepted as regards the proposed rates, they took effect as if they were instructions changing the works information. It does not seem to me, however, to be possible to analyse them in this way, because this is not how either the change requests were phrased or responded to.
- (2) The change requests post-dated the implementation of Better Highways by some considerable time. They post-dated the implementation and completion not only of the trial period but also of the roll-in phase. By the time they were issued, the Better Highways teams were already in place. The purpose of the change requests was not, therefore, to introduce a new system of working, but to set in train the process of ascertaining the financial consequences of that new system of working. They were, therefore, in substance and not just in wording not consistent with being instructions changing the works information.
- (3) Even if Cumbria is right that the change requests could be read as instructions changing the works information and, thus, compensation events, that does not mean that they could not also within clause 45. The former conclusion does not mean that the latter conclusion is excluded. If I was to decide that clause 45.1.4 applied, it would be necessary to decide whether that clause or clause 49.1.1 controlled the valuation process. In my view the former clause 45.1.4 should apply, since clause 45 itself is more clearly intended to apply to the specific factual situation of valuing instructions for a particular type of works, namely routine and cyclic maintenance works. Although I have not been provided with a sample version of an un-amended NEC2 form of contract I can, I think, reasonably infer that it would not contain a clause equivalent to clause 45, whereas clause 46 is clearly intended to be of more general application. I should assume that the parties intended that the clause most closely fitting the particular circumstances of the case should apply in precedence to the more general clause, when both could in theory apply but it is necessary to choose between the two.

15.11 Of course, Cumbria is only in this difficulty now because it made a decision not to follow through the change request procedure, having begun that process, rather than giving an instruction which expressly stated that it was an instruction to change the works information.

- 15.12 It follows in my view that the real contest must be between Amey's case that clause 45.1.4 governs and Cumbria's case that clause 45.1.2 governs. In cross-examination Mr Streatfeild-James observed that Mr McGoldrick had not specifically considered the question of clause 45.1.2 in his report. Whilst that appears to be correct, nonetheless Mr McGoldrick had considered the same essential issues in his consideration of clause 49.1.3, which is to the same or substantially the same effect as clause 45.1.2, and I am satisfied that it is open to Cumbria to contend that clause 45.1.2 should apply in these circumstances.
- 15.13 I have already referred to clause 45 in my analysis of the contract: see paragraph 2.36 and following. The issue here is how the invoice price for works instructions instructing Amey to provide Better Highways teams in specific areas in specific months should be calculated. In broad terms, Cumbria contends that since there was no difference of any substance between highways response teams and Better Highways teams, the invoice price for Better Highways teams should be calculated in accordance with the highways pricing schedule items for highways response teams. This could, depending on whether or not there was any difference between the quantities or items of work instructed and those carried out, be calculated either in accordance with clause 45.1.1, clause 45.1.2 or clause 45.1.3. In all of these cases, a highways pricing schedule item is available, so that there is no need to turn to clause 45.1.4. It is only where no highways pricing schedule item is available that clause 45.1.4 applies. It follows, in my judgment, that the crucial question is whether or not the highways pricing schedule items for highways response teams were "available" for Better Highways teams.
- 15.14 The pricing schedule contained an item for the provision of a highways response team for 1 day, at a specified daily rate, together with a daily rate for out of hours work, together with a multitude of further rates for different items of plant, materials and dayworks. Obviously the pricing schedule must be read with the relevant clause in the highways services specification, as amplified by the relevant section of the appendix referred to in that clause. What appears very clearly in my view from a review of these materials is that the work to be done by the highways response teams, and the way in which it was to be done were specified in general terms, rather than detailed directory terms. That is not remotely surprising, since the item itself was simple, involving as it did the provision of a two man team with transport, basic equipment and materials, to undertake relatively straightforward repairs and maintenance. There was no need to specify in any detail precisely what the highways response teams should be doing, or how they should be doing it. What they were doing was straightforward, and how they should be doing it, insofar as it needed to be directed, would be directed by the Capita local inspector or the Amey supervisor on a job by job basis. It did not matter very much, if at all, whether an individual job was a simple, short job or a long, complicated job; Amey would be paid for providing the team to do the job, however long it reasonably took to do.
- 15.15 However, because the difference between the valuation using the highways response team rates and the valuation using the SSCC is so significant, and the total amount involved is so substantial given the number of daily highways team days worked, this issue has generated a huge amount of controversy and disagreement. Many of the witnesses have expressed strong

views in diametrically opposed directions. Thus it was Mr Forster's clear view that Better Highways introduced a "fundamental change", whereas it was Mr Raymond's "rock solid view" that Better Highways teams were exactly the same as highways response teams. As is only to be expected, both sides cross-examined the others witnesses about their respective views, and both seek to rely in their closing submissions on the views expressed by the witnesses they called, and the admissions extracted in cross-examination from the other's witnesses. I have considered the competing evidence. However I do not think that this is a question which can safely be decided solely, or even substantially, by reference to these views, expressed well after the event by people who have invested a great deal of time and effort and, in some cases perhaps, some of their individual reputations into the issue. It seems to me that I should focus more on the contemporaneous evidence as to the differences between the works undertaken by the respective teams.

- 15.16 Although, as I have said, the highways response teams were later divided into area highways teams, emergency response teams, and permanent repairs teams, there was no change request nor any revisions to the existing items, clause or appendices, nor introduction of a new item, clause or appendix, although an increased price was payable for the emergency response teams. In contrast, when the highways stewards were introduced, that was formalised by a change request procedure, with the introduction of a new item, clause and related appendix. That, however, did not affect the existing teams, since as I have said the highways stewards worked alongside the existing teams, with a broadly similar – although not identical – role.
- 15.17 The works instructions in issue in this case were simple instructions to provide teams, initially described as customer care teams, and subsequently as Better Highways teams, in specified areas for specified periods. As Amey says, the pricing schedule did not include an item for the provision of a "customer care team" or a "Better Highways team". It follows, says Amey, that clause 45.1.4 must apply, because no highways pricing schedule item was "available". However in my view this is far too simplistic an analysis, because the question as to whether or not an item was "available" cannot depend purely on the nomenclature used for items in the pricing schedule. One looks not to the name but to the substance. If what was instructed was in substance work which is comprised within an existing item in the highways pricing schedule, then even if the quantities are increased, and even if it is combined with other items in the highways pricing schedules, clauses 45.1.2 and 45.1.3 apply in my judgment, and clause 45.1.4 does not. And in my view this question must be answered in this case in the context of what is, as I have said, a daily rate for a 2 man gang to do a broad range of straightforward works. That is because from the question of cost, which is what this is all about, a small change in the nature of the work comprised in a piecework rate item may well have a significant impact on the price for that work, since it may involve more resource being required which would not be recovered under the existing rate, whereas a large change in the nature of the work comprised in an hourly or daily rate item may well have no impact on the daily rate at all, since if it takes longer Amey will simply be paid for as long as it takes.
- 15.18 I consider it significant that Amey's contemporaneously expressed view, when proposing a new rate, was that the existing rate for the highways response teams was entirely appropriate to use, unchanged, as the new rate for the Better Highways teams. I have no doubt at all that

this is because Amey recognised what, in my judgment, was plainly the case, which is that whilst there were, of course, some changes, including some significant changes, to the mode of operation of the teams, they were still undertaking substantially the same work, in substantially the same way as the highways response teams and, most significantly at all in my view, the changes to the mode of operation did not have any effect on the relevant rate. That is because if, to take Amey's argument, under the new arrangement the gangs would be doing permanent "right first time" repairs, including small patch repairs, as well as temporary minor, no bigger than pothole size, repairs, then: (a) if it took them longer Amey would be paid for however long it took at the existing daily rate; (b) if they needed more equipment and materials, Amey would be paid for that at the existing rates; (c) if they needed additional assistance from a supervisor, rebranded as an area steward, Amey would be paid for that extra assistance at the appropriate rate. The same is true, for example, of any additional time which might be needed for the Better Highways teams to inspect the local road network, above and beyond what they were doing anyway, and any additional time which might be needed to liaise directly with local residents or area representatives about problems with the local road network. There was never any suggestion that in order to undertake these additional tasks the existing gang members would need to be replaced because they lacked the sufficient skills, or that they would need to be paid extra because they were taking on what they, or their union representatives, considered were greater responsibilities. Although Amey made reference to the need for further training in fact, insofar as there was training, it was envisaged that it would be done on the job by the area stewards or area leaders, again at additional cost as regards any additional time expended by those individuals.

- 15.19 In my judgment it is a question of fact and degree. If Amey had been instructed for example to disband the existing two man teams and provide three-man teams, undertaking substantially different works and using substantially different equipment, or perhaps if Amey had been instructed to provide three-man teams, with 1 undertaking formal highways safety inspections and then directing the other two as to the works which he had assessed needed to be done, then I would accept that the difference would be so significant from the existing highways response teams as to engage clause 45.1.4. However, whatever may have been envisaged at the outset by people such as Mr Moss as being the ultimate goal of the customer care project, that never happened during the Amey contract. In short, I accept the view expressed by Mr Raymond in re-examination, as being consistent with the view I have formed from the evidence overall, that the change did not in the end have any real effect on the skill set of the existing teams, but it did have – and was intended to have – an effect on their mind set. I also accept his evidence that it is important to put all this into perspective; fundamentally the Better Highways teams were being asked to do substantially the same, relatively basic work, under substantially the same conditions, but were also being asked to think for themselves to plan how to work most productively to produce the most effective permanent repair.
- 15.20 I am fortified in my view by an examination of the contemporaneous reasons given by Mr Forster, in his response dated 2 June 2011, to the May 2011 change requests. As Mr Taft agreed, when taken through them in cross-examination, he having referred to them in his report:

- (1) Although there were increased responsibilities placed upon the gang members, the responsibilities were not significantly different from their existing responsibilities, and did not significantly change either the item or the costing behind it. Increased responsibilities placed upon the supervisory staff were addressed by the agreement to charge for their extra time, above and beyond the hour per day per gang already included within the existing rate, on the existing day works rates applicable to them. It was not necessary to import some assessment of that extra time into the daily team rate because it was incidental work, falling within the existing day works rates for these supervisory staff.
- (2) I have already addressed the question of training and expertise. There was no significant change to the item or the costing behind it. No evidence of any actual training above and beyond the on the job training envisaged has been provided. If it was provided in the context of the difference between the previous highways response teams and the new Better Highways teams it could only have been one-off or at best occasional, and I have no doubt that if it had been provided it could have been claimed for as an additional item or series of items under the existing pricing schedule.
- (3) Increased supervision was, as I have said, addressed by the agreement to charge for supervision on the existing day works rates. This reflected the reality, which is that absent agreement on a rate which included for supervision there would be no difficulty in placing orders on a dayworks rate for the extra supervision input required. Even if I was wrong that the supervisory staff could be paid under the existing day works rates, it would not follow in my view that the daily team rate would have to be reassessed from scratch using the SSCC in order to build in an enhanced supervisor element into that rate. Instead, it would simply be a question of assessing a new rate for that enhanced supervisor element as a self-standing item, using the SSCC. In the absence of a claim advanced on that specific basis, this not having been addressed by the quantum experts, I am not in a position to make a separate award in that respect which would, of course, in any event only amount to the difference – if any – between that rate and the dayworks rate to which the supervisors were already entitled.
- (4) Insofar as there was any reduced productivity or cost efficiency it would not be material to the daily team rate since as I have said, and as Mr Taft accepted, the teams were paid for however long it took them to do the job.
- (5) Insofar as there was any loss of “better buy” opportunities for purchasing materials, which has not been demonstrated in the context of comparing Better Highways team work with response teams, that would not be material to the daily team rate since, as Mr Taft accepted, plant and materials were the subject of separate works instructions, as to which there should be no dispute.
- (6) Insofar as there was any lost or reduced opportunity for fall-back work, that would also not be material to the daily team rate. This is the “wet weather” work identified by

Amey in its October 2010 rate proposal. As Mr Taft accepted, it is irrelevant to the issue of the proper daily rate for the Better Highways teams.

(7)-(9) The same point applies, as Mr Taft accepted, in relation to the reduced workload for the street-lighting team, the sign shop and the operational control room (the latter according to Amey at the time being provided on a free of charge basis in any event).

15.21 Amey makes the forensic submission that a conclusion that there was no material difference would be a surprising one to draw, given the time, effort and money which was lavished on Better Highways by Cumbria, and how it was heralded by Cumbria at the time as a fundamentally different way of working. However, in my view the question as to whether there was a material difference in the context of how Cumbria was performing this particular aspect of its road maintenance obligations is not the same as the question as to whether or not the work could nonetheless be instructed under the contract with Amey at an existing available schedule of work rate, so that it provides little or no assistance in answering this specific question. Furthermore, even if that was not the case, this would not be the first occasion where something which was heralded as a significant innovation turned out to be something rather less than that on close examination. I am satisfied that the reality was that Cumbria's ambitious attempt to remodel the system in one fell swoop foundered on the rocks of the existing contractual structures, the cost implications under the existing contractual structures, and the risks to the prospects of successfully defending highways tripping and associated claims, so that it was not until after first the Capita contract and second the Amey contract had come to an end that Cumbria could seek to introduce the Better Highways proposals in their full intended form.

15.22 I have considered whether this conclusion is affected by the disbandment of the highways steward system. In my judgment it is not. As I have said, the highways stewards were introduced to sit alongside the highways response teams, at a time when there were concerns about the efficacy of the existing system, and when it was convenient to instruct and pay for them separately due to specific funding being available for that purpose. Insofar as their role was incorporated within the Better Highways role it was still work which fell within the wide remit of the contractual description of the work of the highways response teams. There was no need for the highways stewards to continue as a separate structure once the Better Highways came into operation with an increased number of teams. Amey cannot complain about the removal of the highway stewards, because Cumbria did not undertake, whether in the contract or otherwise, any specific commitment to continue with them as a separate organisation.

15.23 I have also considered whether or not this conclusion should be affected by the difference between the amount of equipment carried by the Better Highways teams as contrasted with the highways response teams. The position is that the equipment list was broadly the same, but the updated Better Highways teams list included a hydraulic breaker and a metal and a cable detector which were not in the original list. Mr McGoldrick's view, which I accept as accurate, was that before the introduction of the revised list highways response teams were already being instructed to and were carrying a breaker and detector, with no suggestion that

it was necessary to undertake a re-rate for the team rate to cater for this. Mr Taft accepted in the further joint statement that the equipment was broadly similar. It is clear that Amey did not consider that it was necessary to undertake a re-valuation of the team rate to make provision for this equipment, either because it considered the difference did not involve any additional cost of any substance or because it would be entitled to recover the additional cost under the cost of special equipment and materials.

15.24 I accept Mr McGoldrick's evidence that the total cost of the breaker and detector was only approximately £6 per day and that by reference to his analysis of SAP – which in this respect can be accepted as accurate since the absence of monthly paid operatives is irrelevant – in fact overall there was no difference in the level of equipment carried as between the highways response teams and the Better Highways teams.

15.25 In the circumstances, it seems to me that Amey's entitlement to payment for the Better Highways teams should be at the same rate as for the highways response teams under the contract, increased each year to take into account increases in the RPIx, which I understand from the further joint statement at page 16 to be agreed at £405.28 for year 6 and £414.78 for year 7.

15.26 Of course, in addition to this payment, Amey is entitled to further payment for out of hours work, for special equipment and materials, and for additional supervision, which I address below.

(b) A separate rate for the trial period / roll-out period?

15.27 I should also consider whether different considerations may apply as regards the rate to be applied in relation to the trial period and/or the roll-out period.

15.28 In his first witness statement at paragraph 131 Mr Robinson said that:

“When the BH roll-in began in South Lakes, Amey were charging for all BHT labour and plant on a dayworks rate instead of the AHT rate. This was proving expensive for the Council and generous to Amey because the AHT daily rate for 2010/11 was £405.28 whereas the dayworks rate was over £500. The dayworks rates had been introduced during the trial period which preceded roll-in. The Council was prepared to pay the dayworks rate as an interim measure pending agreement of a BHT rate with Amey, and the rationale for it was that until the BHTs had settled down Amey was working on an ad hoc basis and had had no opportunity to drive efficiencies through. The dayworks rate would therefore recognise the uncertainty that Amey had been put to during the trial period process.”

15.29 It is not quite clear whether Mr Robinson is saying that it had been agreed that Amey should be entitled to payment on a dayworks rate throughout the roll-in period, as well as the trial period, or even after roll-in and up to and until agreement had been reached on the new Better Highways rate. There is no evidence to the effect that any such agreement had been reached,

even though it is clear that the roll-out was a period of experimentation, where nothing was set in stone.

- 15.30 There is no clear evidence as to the basis on which monthly applications were made in relation to the roll-out period for the various areas, let alone as to the basis on which they were paid. Indeed, it appears that there is no consensus as to what the dayworks rate might be, given the range of permutations for labour, plant and materials costs which might be included in such a claim.
- 15.31 Although there is the drafting of the change requests sent in May 2011, where it was said in terms that the dayworks rate should continue until 28 May 2011 or until agreement was reached on a rate, which I suspect is the source of the statement by Mr Robinson in his witness statement, no-one has suggested that this statement should have contractual effect, in the sense that the dayworks entitlement should continue until agreement was reached, and what appears to have happened is that Amey began submitting claims on the basis of the rate it had put forward in early 2011, whereas Cumbria appears to have been making payment on the lesser rate applicable to highways response teams.
- 15.32 In the circumstances I do not consider that a different conclusion should apply in principle as regards these separate periods, and neither party has suggested that it should. It does, however, appear that separate considerations may apply in relation to the 2 works instructions for the Eden area, which covered the trial period and the roll-out period, which I will address at the same time as I address the other disputed part 1 claims, and after I have addressed the disputed issue of the number of Better Highways team days worked. Before I turn to that thorny issue I should also, for completeness, address the parties competing cases as to the alternative valuations under the SSCC and/or the SCC.

(c) Valuation under the SSCC

- 15.33 In case I am wrong in my decision that the highways response team rates can be used for the Better Highways teams, and because it was so strongly disputed, I should set out if only relatively shortly my conclusions on what the valuation would have been under the SSCC. The impact of the difference between the respective experts can be seen from the fact that Mr Taft's figure for year 7 is £901.92, whereas Mr McGoldrick's figure for the same year is £650.97.
- 15.34 It is at least agreed that the labour cost for the 2 man gang is £159.
- 15.35 There is however a dispute as to the "people 2" allowance, this being the allowance for the management and administrative support element. Mr Taft has adopted a relatively straightforward approach, of ascertaining the total management and support cost, ascertaining the proportion of Better Highways labour to overall productive labour, and then applying that proportion to the total cost to arrive at the cost for Better Highways which is then converted into a daily rate. That produces a rate of £66.16. In contrast, Mr McGoldrick has considered the personnel claimed for in the context of whether they would have been involved on Better

Highways work, and has removed a number on the basis of his assessment that they would not, leading to a lesser valuation of £46.89. Whilst I would normally have considerable sympathy with Mr Taft's approach, as representing a robust, commonsense approach to valuation, I do note that in April 2011, when Amey put forward a valuation based on SSCC, it identified specified management and administrative personnel who it said were actively involved on Better Highways and, on that basis, valued this element of the rate in the lesser amount of £46.49. In the circumstances, it appears to me that Mr McGoldrick's valuation is more likely to be correct as being closer to Amey's own contemporaneous analysis of the personnel who were actively involved on Better Highways at the time.

- 15.36 Although Mr McGoldrick does not like it, it is common ground that an uplift of 75% must be applied to the people costs.
- 15.37. There is, however, a substantial dispute as to the equipment. Although Mr McGoldrick again does not like it, it is common ground that the contract equipment is to be valued at CECA rates. There is a reasonable level of agreement as to the relevant rates. It is also agreed that the SSCC provides that equipment falling within what is referred to as "hand tools and hand held powered tools" is not included, because it is treated as falling within the 75% uplift. However there is a substantial debate as to which tools fall within that category, which was explored in cross-examination of both experts. Mr Taft's view is that only items which can be carried and operated by hand are covered, which therefore in his view excludes items such as power wackers and hydraulic breakers.
- 15.38. Mr Taft referred to, and sought to rely upon, the minutes of a meeting between representatives of the parties which made reference to certain guidance notes which have been issued on this point. However I do not consider that I can place any reliance on these documents when construing this particular provision. In particular I note that the version I am considering is different from the updated version, which specifically includes "small tools" but specifically excludes "compressed air tools". I am satisfied that the true distinction is between those tools which are designed to be, and can be, used whilst being held aloft in one or both hands, and those which are not. Thus it would include a breaker (whether with a separate power pack or with a 2 stroke breaker, weighing around 25 kg, excluding the compressor which weighs around 70 kg but which just rests on the ground on its own weight and is separate from the breaker itself), a cutter and a saw (typically weighing less than 20 kg), but would not include a wacker (which is positioned on the ground, like a lawnmower, and which weighs about 95 kg).
- 15.39 Otherwise, I prefer Mr McGoldrick's views, and thus with the exception of the wacker, which I would allow, I would have allowed only the 1 hour allowance for the supervisor's van and the £211.76 equipment costs.
- 15.40 Finally, it is common ground that the fee of 9% must be added to the total.

(d) Valuation under the SCC

15.41 It became clear that this had been the subject of only very late consideration by the experts. That is, as I have said, because Mr McGoldrick's primary position was that if this was a compensation event, it should be valued under clause 49.1.3, rather than clause 49.1.1, which is where the valuation under the SCC arises.

15.42 In particular, it appeared that Mr Taft had produced a late valuation under the SCC, Mr McGoldrick had not had the time or opportunity to consider it. In the circumstances I permitted both parties to adduce further written comments from the experts, but when they were received it became apparent that there was a vigorous dispute about the proper valuation under the SCC, which it would in my view have been difficult to resolve fairly without further cross-examination of the experts and submissions. Given my primary conclusions it seems to me to be unnecessary to require the parties to go down this route. It also seems to me that I am unable in the circumstances in a position to express any concluded view on what the proper valuation under the SCC would be. In the unlikely event that this does have to be determined at some later stage the only fair way of doing so, in my view, would be for the parties to have the opportunity to adduce further evidence and submissions on the point, insofar as it remained in issue and had significant monetary consequences.

(e) The number of Better Highways team days worked

15.43 The number of Better Highways team days worked is the other substantial dispute with significant financial consequences so far as item 12 is concerned.

15.44 In its original pleaded case Cumbria put Amey to proof and justification of the operator time spent working on Better Highways but, in paragraph 49, pleaded in unqualified terms that the number of gang days claimed (10,960) was "wrong and should be adjusted down to 10,544" on the basis that it makes no allowance for days when only one gang member was on duty. Indeed in paragraph 51 Cumbria pleaded a positive case as to the sum "properly due to Amey for Better Highways team works", which was based on the assessment of 10,554 gang days.

15.45 However in paragraph 174 of his first witness statement Mr Robinson said this:

"The quantum of the BH Rate claim is the rate multiplied by the number of gang days. In relation to gang days, I did not accept the 10,960 days used by Amey for its calculation. Amey did not provide the documents to demonstrate 10,960 days and after looking at such documents as are available I adjusted the figure down to 10,554. That said, I do not know whether Amey can justify even that figure because, where I was unable to look at contemporary records, I applied Amey's claimed days."

15.46 In his first witness statement Mr Smith explained at paragraph 116 that Amey had subsequently revisited its figure, and its revised number of gang days worked had decreased to 10,555.5, very close to Cumbria's figure, although given the particular reason for that change there was still a disagreement between the parties.

- 15.47 However Mr McGoldrick then produced a report based on his analysis of the information in SAP, and concluded that the number of gang days was no more than 7,874. This prompted Cumbria to apply to amend its pleaded case to bring it into line with Mr McGoldrick's opinion, which Amey did not oppose subject to being given permission to rely on additional evidence from Mr Smith and from Mr Gerard in relation to SAP, to which I have already referred.
- 15.48 It was put to Mr Smith that Amey's case had changed, its original case being that only 64 operatives were used to work on Better Highways, whereas its new case was that over 200 operatives had been used. Cumbria appears to read the evidence in support of the letter of claim, particularly paragraph 45 of Mr Collins witness statement, as a positive assertion that only 64 operatives worked on Better Highways. However in my view that is a misreading of this paragraph, and it has never been Amey's positive case that only 64 named operatives ever worked on Better Highways. Amey's case was simply that it was required to provide 32 two man teams, so that the starting point for the calculation was that on any given day it would be expected that there would be 64 operatives working on Better Highways throughout the county. As Mr Smith said, it would never have been possible for the same named 64 operatives to have been working on Better Highways throughout the county for the whole period, given the need to cover holidays, sickness and the like. Moreover, as Mr Smith said, on occasion Cumbria required Amey to provide additional operatives to support some of the Better Highways teams. Cumbria appears to have misread the list of operatives forming part of the letter of claim as being intended to form an exhaustive list of all operatives who ever worked on Better Highways, when in fact it was simply intended to identify the core operatives who were intended to form the 32 2 man teams.
- 15.49 Mr Smith explained that the figure of over 200 operatives had been arrived at by interrogating SAP as to which operatives were recorded as having time booked to one or more of the individual Better Highways works instructions, and I have no reason to doubt the accuracy of that explanation.
- 15.50 I accept Mr Smith's evidence that the basis for the claim was the number of gang days worked in any given month, as submitted by Amey on the basis of the final figures produced at the end of the month following the work in question, which would have been subject to any deduction which might be necessary to reflect the fact that on certain days there might not be 32 two man teams working a full day (for example due to illness at short notice for which cover could not be obtained). These deductions would have been picked up by the Amey quantity surveyors, because they were recorded on the daily record sheets. The process was explained by Mr Smith and illustrated by the analysis in his third witness statement of works instruction G500327, from which it was apparent that the basic gang day claim of 152 days was correctly made, but that: (a) deductions were also made to reflect the fact that on certain days the full number of operatives who should have been present working a full day were not present: (b) additions were made to include for additional supervisor time costs. All this was recorded on the works instruction itself, as was apparent when the properly copied version was produced, as opposed to the version which had not properly been copied but which had been uploaded onto Magnum.

- 15.51 I am satisfied with the explanation given by Mr Smith, which clearly reflects in my view what would have happened on the ground at the time, where agreement would have been reached in the vast majority of cases as to the number of gang days worked between the representatives of Amey and those of Capita or Cumbria. I am satisfied that Mr Smith has, as he said he had, analysed over 35 of the 106 works instructions issued for Better Highways the subject of this claim, and that he has satisfied himself that Amey's figures, based on the contemporaneous daily record sheets, are correct.
- 15.52 I accept that there is the possibility of some error if in the final week of the month in question there were some shortfalls in the number of days worked, which were then not picked up by mistake, either by the Amey quantity surveyor when the application was made final, or by the Capita or Cumbria inspector when reviewing the claim, but I am also satisfied that any such errors would be inadvertent and, in context, relatively minor.
- 15.53 It is clear from the evidence about the interim guidance given by Mr Robinson, see in particular paragraph 138 of his first witness statement, that Cumbria's area managers were expected to request back up information to support the monthly claims submitted by Amey, and it is in my view noteworthy that: (a) there is no evidence, contemporaneous or otherwise, to suggest that there were any significant issues either as to the correctness of the monthly claims or as to the ability of the area managers to obtain the necessary backup information if they asked for it; (b) there is no indication of any dispute as to the figures produced by Amey and included on Siteman, either at the time or at any time during the course of this trial prior to Mr McGoldrick having access to SAP. Mr Robinson identifies one such occasion, at paragraph 155 of his first witness statement, where he did note some discrepancies in the claim, but does not suggest that this was one of a number of such instances which were identified at the time or subsequently.
- 15.54 Furthermore, in oral closing submissions, Mr Streatfeild-James referred me to an exchange of emails in May 2011, which showed that in response to Cumbria rejecting one works instruction application going back to October 2010, on the basis that backup and invoices were required, Amey was very quickly able to provide 22 pages of supporting information. I accept Amey's argument that this demonstrates that the system worked reasonably well in practice at the time.
- 15.55 It follows, in my view, that at the time Cumbria's area managers had no particular disagreement with either the applications being made or the supporting information provided. Cumbria has not produced evidence, documentary or oral, to contradict this.
- 15.56 In his second witness statement, at paragraphs 16 and 17, Mr Robinson refers to the fact that standard work reports were submitted to Cumbria by Amey "as part of the accounting process" for the Better Highways claims, and that "both during the contract and the final account process the council would pick up discrepancies between work reports completed by supervisors and timesheets completed by operatives". Again, the clear impression given by Mr Robinson is that at the time these supporting documents were provided and analysed by

Cumbria. In these paragraphs Mr Robinson appears to suggest that the works reports are not accurate because they do not take into account measured work also being done by the Better Highways gangs at the same time and wrongly separately charged for, however: (1) this was not put to Amey as part of a positive case; (2) even if put, it would have been hopeless, because it was founded on the evidence of Mr Rollitt, whose evidence I have already said I found thoroughly unreliable.

- 15.57 It is a striking feature of this case that Cumbria has not called any of the previous Capita inspectors or any of its own area managers to give evidence to the effect that they were not instructed to and did not scrutinise the payment applications for Better Highways works instructions or cross check them against their own records of what had been instructed or provided, or ask for back up in the form of daily record sheets or timesheets. It is clear that if enquiries had been made at the time Amey would have been able to produce its daily record sheets and timesheets, and also to check with SAP as to which operatives were booked as working on individual Better Highways works instructions and, therefore, to have been able to provide backup. As Mr Streatfeild-James put to Mr McGoldrick, it would appear that there are two possible explanations for the significant discrepancy which Mr McGoldrick has identified between the number of gang days claimed and the number found by Mr McGoldrick on his analysis of SAP. The first is that not all of the operatives who in fact worked on Better Highways are booked on SAP as having done so, which is not particularly surprising in circumstances where SAP was never intended to provide a full or accurate record for that purpose. The second is that claims were made for approximately 2,000 more gang days than were worked, without any supporting backup being available or produced if asked for. As I conclude later I am satisfied that the former explanation is by far the more likely.
- 15.58 A particularly striking example of Cumbria's current approach to this issue relates to the claim for Better Highways gang days worked in Eden during the roll-out period. It was suggested at trial that the claim was too high because instead of claiming the total number of working days in the month, the claim was made for the total number of days in the month, including weekends. There was no evidential basis for this assertion, which was not put to any of Amey's witnesses. However, even though it seemed to me that this suggestion was plainly no more than speculation without any sound evidential foundation, when Mr McGoldrick was cross-examined he nonetheless suggested that it was a possibility. Under further cross-examination it appeared clear that Mr Smith had been able to provide explanations for certain apparent discrepancies and, moreover, that the interrogation of SAP based on all operatives booked to the works instruction in question was reasonably consistent with the claim made, with there being explanations for the small discrepancies, whereas Mr McGoldrick's interrogation was based only on the 64 named operatives and, perhaps not surprisingly therefore, producing a smaller number of gang days apparently worked.
- 15.59 I also accept Mr Smith's evidence as to the reason for the confusion about the 4 named operatives who are recorded on SAP as undertaking winter maintenance work over the whole of the relevant period, as opposed to working on Better Highways, namely that it simply arises from the decision to book these salaried employees to the winter maintenance cost tag, in circumstances where there was no separate Better Highways cost tag to book them onto, and

where they would have done some winter maintenance work from time to time over this period.

- 15.60 I also accept Mr Smith's evidence in relation to subcontractors. He said that there would have been spreadsheets to record the breakdown of the subcontract labour working on Better Highways in relation to individual works instructions. He also said that subcontract labour working on Better Highways would be recorded as a subcontract cost item, as opposed to a labour only subcontract cost item. Indeed it is apparent from paragraph 38 of Mr Gerard's witness statement that only approximately £79,000 worth of subcontract labour was charged to the 106 Better Highways works instructions, which appears relatively modest in comparison with the total value of the claim. I was unimpressed with Mr McGoldrick's approach of disallowing work recorded as having been done by agency employees on the basis that there was no evidence that they had sufficient skills or experience to undertake Better Highways work. In my view this wholly overestimated the degree of skills and experience required by the Better Highways teams, in particular by the second operative, who I have no doubt could work perfectly well alongside the first trained operative as a general assistant. It seems to me to have been perfectly legitimate for Amey to use agency employees to provide cover for absences. Furthermore, insofar as there was a genuine criticism that these operatives did not have sufficient skills or experience, that would not have been justification for simply disallowing days recorded as being worked by them, when there was no evidence that they were not physically present undertaking work on the days in question. The same point arises, in my view, as regards Mr McGoldrick's opinion about the use of surfacers to undertake Better Highways works; insofar as the lack of appropriate qualifications is used to justify simply disallowing days recorded as undertaken by them, then that seems to me to be wholly unjustified.
- 15.61 In my view the evidence about this tends to substantiate Cumbria's other complaint, which is that once Amey became aware that Cumbria was no longer prepared to grant it a contract extension it had no particular interest in assigning its best operatives to Better Highways, as opposed to more productive planned work and, hence, was more likely to make up numbers by using any of its employees who happened to be available, supplemented with agency employees and subcontract labour where necessary. However, none of this justifies disallowing gang days worked by these operatives in their entirety and Cumbria has not, for understandable reasons, sought to plead or advance a case based on an entitlement to some form of discount to reflect the lack of skills or experience of these operatives.
- 15.62 In cross-examination Mr Taft was taken to some Siteman records to seek to demonstrate inaccuracies in them; my overall impression is that this was more a series of modest points about a modest number of inaccuracies, rather than a serious attempt to show that the information in Siteman was systematically inaccurate or unreliable. Moreover, it appears that all of the discrepancies referred to date from autumn 2010, which was the time of the roll-out period, where one might have expected additional resources to have been needed and which would have provided a likely explanation for the apparent discrepancies.

- 15.63 It also seems to me that Mr McGoldrick's approach has been unrealistic. For example, Mr McGoldrick had discounted any claim for days worked where the daily record sheet for the Monday had been used to justify a claim for the rest of the week, even though with some modest detective work it was possible to find unsigned or undated daily record sheets corresponding with those which were signed or dated and which therefore tended to indicate that the days in question had indeed been worked. As Mr Taft said, this is the sort of query which, had it been raised at the time, would have been resolved by a good working relationship between the local area representatives.
- 15.64 I accept that Cumbria is entitled to say in principle that since these works instructions for Better Highways have not been finalised, Amey was obliged to provide verification for the claims. I also accept that Cumbria is entitled to point to Amey's obligation to hold and maintain records, and to provide information reasonably required which, although not expressly mentioned, I would accept would include information reasonably required for the purposes of verifying the monthly, annual and final accounts.
- 15.65 However I also accept Amey's arguments that what is required in any particular instance is fact sensitive. And so far as this case is concerned, it seems to me that the following facts and matters are material:
- (1) Amey and Capita/Cumbria were perfectly familiar and content with the procedure of claims being submitted via Siteman and supporting documentation being provided when required, in circumstances where the Better Highways claims were one of the more straightforward elements of the contract to value.
 - (2) There is no suggestion that this process was not followed perfectly satisfactorily throughout the duration of the contract. I am satisfied that where information was required it was asked for and – in the main - was provided. It is apparent that as a result some adjustments were made to some of the claims, as would be expected to happen from time to time.
 - (3) All of this explains why, until the parties fell into dispute and the final account process began, this was not perceived as an issue of any significance. Indeed, I go further and am satisfied that despite the demands made for documentation during the final account process, there was still no serious appetite on Cumbria's part to conduct a detailed investigation into the number of Better Highways gang days worked, not least because it had no reason to think that there was any significant dispute or disparity. This also explains, I am satisfied, Cumbria's lack of appetite for pressing for physical inspection facilities of all of the Better Highways works instructions or for undertaking a detailed review of all of the documents uploaded onto Relativity to see whether they supported Amey's days worked.
 - (4) It was only when Mr McGoldrick obtained access to SAP and, hence, could conduct investigations with rather greater ease, by way of electronic searches, that Cumbria became seriously interested in this aspect of the case. This was notwithstanding that

Amey had said, perfectly correctly, in answer to Cumbria's request for further information, that it had not calculated gang days from SAP, because that did not record quantities of work and thus could not be used to confirm the number of gang days (see paragraph 59 of Cumbria's closing submissions). However, undeterred, Cumbria decided to use SAP to investigate the claim anyway, and Mr McGoldrick has clearly expended a considerable amount of time and effort in so doing. This is notwithstanding that Mr Smith, in his first witness statement, had explained in some detail (paragraph 63 – 72) how the process operated, how there were back-up records behind each works instruction which would have been examined by Capita/Cumbria at the time, and how SAP would not capture all of these details. Whilst I accept that Cumbria may not have known the detail about SAP, and how it was used by Amey, it plainly did know, through Mr Robinson and others, that what Mr Smith was saying about how the process operated during the contract and the physical records was correct, but chose to ignore that evidence.

- (5) I do accept, as I have already held, that Amey did obstruct and delay Cumbria's and in particular Mr McGoldrick's access to SAP, nonetheless it is clear in my view that this was always a flawed enterprise, and that Cumbria cannot blame Amey for its decision to go down what in the end proved, as Amey had always contended it would, to be a cul-de-sac.
- (6) It is therefore not surprising, in my view, that once Mr McGoldrick produced his report, having undertaken his investigations through SAP, seeking to make a substantial reduction to the number of gang days, that Amey restated its position about the limitations of SAP and the need to go back to the physical records. As I have said, I am satisfied that the sample investigations undertaken by Amey demonstrate that the physical records substantially support Amey's case.
- (7) I accept that Amey has not provided backup packs for all of the disputed Better Highways works instructions. I accept that Amey must bear some blame for that, since it could have done so from the outset or in response to the 2012 correspondence. However, I am not inclined to judge Amey too harshly for this omission, in circumstances where it did not appear to have featured as a significant dispute in the case until Mr McGoldrick made it so, and where Amey was – not surprisingly in my view – unwilling to devote valuable resources to this issue unless and until it became apparent that Cumbria was raising it as a serious matter.
- (8) I am satisfied that Amey has produced, it would appear, around 7,000 daily record sheets. If its case as to the number of Better Highways team days is correct, then it ought to have been able to provide around 10,500, so that there is a significant shortfall. It is not wholly clear from the evidence whether there are records for the remaining works instructions which are either on Relativity but cannot be located, or lost in the chaos which now, it appears, comprises the reassembled physical files. However I am satisfied on the balance of probabilities that there were originally daily record sheets for all, or at least the vast majority, of the days claimed for, that if they

had been asked for at the time of the monthly application process they would have been produced at the time, and that all or at least the vast majority of any discrepancies could and would have been explained at the time, albeit I accept that this process might also have resulted in some modest reductions. I also accept Amey's criticism that Cumbria appears to have done little or nothing to investigate from their own resources; in particular there is no evidence of any effort to seek to obtain and examine records which Cumbria and/or Capita may have had, or to interrogate postbox to search for documents.

- (9) Fundamentally, there are as I have said only two realistic competing explanations. The first is that Amey made contemporaneous applications for payments completed by the quantity surveyor, where the practice had previously always been to submit from the supporting documents, but where there were no supporting documents for approximately 30%, and that was because the work was not done as regards those days. The second is that there were supporting documents, which could and would have been produced for the whole, but Amey is now, for the reasons given, unable to produce and collate a full pack of supporting documents for all of the days claimed.
- (10) As Amey submitted in opening and again in closing submissions, it is very difficult to see how Cumbria's explanation could make sense other than through either a deliberate decision to make knowingly inflated claims or some level of carelessness or incompetence which does not appear consistent with what happened before and during this period in relation to Amey's other claims. The first explanation was not one which was either pleaded or put in cross-examination, not surprisingly given the complete absence of evidence to justify it; the second does not seem to me to be any more plausible and, when compared with the other explanations for the state of affairs which now subsists, seems to me to be far less plausible than those explanations. Indeed, as has been said, if one takes the number of gang days recorded on SAP, and adds back the days disallowed by Mr McGoldrick on the basis of his own non-expert views as to which operatives were properly entitled to undertake Better Highways works, there is very little difference of any substance between the two figures.
- (11) In the circumstances, I accept Amey's case as to the number of gang days, namely that the correct number of gang days is 10,555.51 (see paragraph 463 of Amey's closing submissions). Whilst I accept, as I have already said, that it is possible that there may be some individual elements of this total which, on a detailed investigation, might prove incorrect, due to arithmetical error or similar, in the absence of any further evidence from Cumbria which would entitle me to make some analysis, no matter how general, as to what would be a reasonable discount to reflect this possibility, I do not feel entitled or able to apply what would have to be some wholly arbitrary discount. Given the way in which Cumbria has approached this case, it does not seem to me to be unfair if, having been asked to choose between two substantially different alternatives, I choose one without then seeking to open up a further investigation in a way which was not the subject of investigation at trial.

15.66 As regards SAP, whilst I accept Cumbria's case that it could and should have been provided with full access to the data contained in it much earlier than it was, and also that it is also a useful tool for crosschecking records and costs, as is apparent I do not accept Cumbria's case that it should be preferred over Siteman or, more importantly, over the data in hard copy form which I am satisfied was used to import the data into Siteman and was provided on request as backup. I am satisfied that what has happened here is that Cumbria and Mr McGoldrick have been determined to use SAP to seek to prove that the claim is overstated, with the mindset of advancing every argument available to them to do so, which has included Mr McGoldrick forming opinions on matters which go beyond his ability to offer useful opinion, such as the appropriate qualifications of operatives, and whether or not operatives allocated to winter maintenance did in fact work on winter maintenance. In short, I am satisfied that even if Amey had provided documentary backup in hard copy from the outset, it is unlikely that Cumbria would have been deterred from undertaking this or a similar exercise.

15.67 I am also satisfied on the facts of this case that it is not open to Cumbria to defend this claim by seeking to rely upon an alleged failure to provide verification reasonably required; in my view, when looked at overall, Amey has reasonably complied with its verification obligations in that regard.

(f) The part 1 Better Highways items

15.68 As I have said, there are 4 elements to this claim, namely: (1) the Better Highways teams claim; (2) the Better Highways plant and materials claim; (3) the Better Highways out of hours claim; (4) the claim under works instruction F300087.

15.69 In total, there were 319 separate works instructions issued for Better Highways works. Of these: (a) 106 relates to Better Highways team claims; (b) 107 relate to plants and materials claims; and (c) the remaining 106 relate to out of hours claims. There is an analysis of the total claimed and the total paid to date at paragraph 95 of Mr McGoldrick's supplemental report. It appears that he has obtained these details from an analysis of the work instructions themselves and from what he refers to as "Cumbria interim payment data". However, because of the way in which lump sum payments have been made by Cumbria against certain payment applications it is not possible for Mr McGoldrick to conduct a precise analysis without making certain assumptions, for example as to the proportion of payment in relation to Better Highways team claims which relate to gang days, as opposed to other items such as additional supervision.

15.70 Amey complains that before Mr McGoldrick had been instructed to review all work instructions in relation to Better Highways by reference to the information available on SAP there was very little by way of apparent dispute between the parties, whereas following and as a result of that review there is a much more substantial dispute. Amey's case is that in the same way as with the dispute about the number of gang days worked Mr McGoldrick's review, by focusing on SAP, ignores the limitations of SAP and also ignores the reality of the situation by taking no account of what happened at the time. Amey's case is also that Mr McGoldrick's review ignores the fact that the primary reason for Cumbria not making

payment in full against Amey's payment applications was due to its budgetary pressures, as explored in cross-examination with Mr Raymond. In short, as will be seen, I consider that Amey's criticisms of Mr McGoldrick's analysis are very substantially justified.

15.71 I will consider the 4 elements of the claim in the order listed above.

(1) The Better Highways teams claim

15.72 Having determined the Better Highways team rate and the number of days worked there is little more to address save in relation to the claims for supervision and other additional labour resources. It would appear that Mr McGoldrick has made a calculation of the total number of supervision hours, using SAP payroll data, and has then deducted from that total 1 hour per gang day in accordance with the contemporaneous agreement reached. The remaining hours have then been charged out using what Mr McGoldrick considers to be a suitable blended dayworks rate. Mr McGoldrick also rejects all additional labour resources claimed, on the basis as I understand it that they are already included within his analysis based on SAP.

15.73 This was the subject of relatively short consideration by the experts in their further joint statement at point 6 (page 9). In short, the difference boils down to whether I prefer the claims made via Siteman with, I am satisfied, the benefit of supporting contemporaneous information, and which were scrutinised by Capita/Cumbria, and supporting information made available where required, or Mr McGoldrick's retrospective analysis using SAP which does not, as I have said, record all relevant information. In short, for substantially the reasons given above in relation to the dispute as to the number of days worked, I prefer the contemporaneous Siteman records to the retrospective SAP analysis and, therefore, allow all of these costs as claimed.

(2) The Better Highways plant and materials claim

15.74 A summary of this item, and Amey's case in relation to it, is to be found at paragraph 355 of Amey's closing submissions. Amey's case, as put to Mr McGoldrick in cross-examination, is that before his involvement there was only a modest difference between the amount which Amey said was payable, £2,087,074.21, and the amount which Amey said had been paid, £2,108,852.37, leading to a net credit to Cumbria of £21,778.16. Following Mr McGoldrick's review, he produced a revised valuation of the amount which he believed payable in the sum of £1,990,809.18, producing a more significant counterclaim of £118,043 (page 42).

15.75 In the further joint statement an agreement was reached in relation to 22 works instructions, where there was only a minor difference between the parties. It was also agreed that there was a substantial overpayment in relation to 31 specific works instructions. As to this Mr McGoldrick's view was that this should be treated as a discrete overpayment, whereas Mr Taft's view was that it could not be considered in isolation from the overall picture.

15.76 There was also a straightforward dispute in relation to 33 further works instructions, where Mr Taft had accepted the claim as presented on Siteman, in the total amount of £830,641.30, but

where Mr McGoldrick had re-assessed the works instructions using SAP in the lesser amount of £734,376.27. This is to be contrasted with the amount paid of £453,368.15. I do not accept Amey's argument that Mr McGoldrick's analysis is seeking to rewrite history. It appears from the analysis that the dispute turns on a number of discrete issues as to which rates and uplifts should be applied. Thus this is different from the dispute about the number of gang days, because in relation to these items there is no clear evidence that the details as to which rates and uplifts should be applied was something which was discussed and agreed at the time. It follows that there is no basis for concluding that a contemporaneous process resulted in a considered reconciliation of an agreed sum. Nor is this a case where the difference can be explained by the fact that Capita/Cumbria would have had backup information available to them which has not been provided to Mr McGoldrick. Indeed, the fact that on any view there was some element of overpayment in relation to this part of the Better Highways claim indicates that the contemporaneous payment applications process was not working completely accurately in any event.

- 15.77 There was a dispute as to whether or not dayworks or CECA rates should be used, as to which I prefer Mr McGoldrick's opinion, given my findings as to the proper basis of the valuation, namely that it is not to be conducted under the SSCC. There was also a question as to the correctness of Mr McGoldrick's approach of taking no account of costs on SAP not directly related to the individual works instructions, about which I am not so convinced. There was also a question regarding labour costs which were wrongly booked to plant and materials. More significantly, Mr Taft had also included a 75% people uplift, applying the SSCC, which I do not accept. Finally, it appears from page 10 of the joint statement that the majority of the difference in financial terms arises from Mr Taft applying a 200% uplift on plant under CECA, which I do not consider justified and prefer Mr McGoldrick's view.
- 15.78 As regards these dispute, I prefer Mr McGoldrick's view in relation to the majority of the disputed items. My assessment of the overall position is that £750,000 is due to Cumbria in relation to these works instructions. This is an assessment as opposed to a precise financial assessment, but given that I have not been provided with the materials to undertake a more precise allocation it is one based on my overall analysis of the competing arguments and my best assessment of the relative financial impacts of the decisions I have made.
- 15.79 The end result is as follows: (a) there are 21 works instructions where there is no dispute, value £334,613.26; (b) there are 22 works instructions where the parties have agreed a value at £374,094.42; (c) there are 31 works instructions where the parties have agreed a valuation of £557,724.93; (d) and there are 33 works instructions which I value at £750,000. The total, if my mathematics is correct, is £2,016,432.61. When compared with the amount agreed as already paid, £2,108,852.37, there is an overpayment of £92,419.76 but, as both parties agree and is plainly correct given the accounting issues, the appropriate course is simply to include the amount of £2,016,432.61 on Amey's side of the ledger as a sum due, with the £2,108,852.37 being included on Cumbria side of the ledger as an amount to be credited.

(3) The Better Highways out of hours claim

- 15.80 Here the amount claimed is £354,628.45, against £290,543.81 paid. Mr McGoldrick has analysed the out of hours claim by reference to the payroll data provided by Amey from SAP in January 2016, and has arrived at a valuation of £89,889, which is significantly less than the amount paid.
- 15.81 It is apparent from the further joint statement that there are a significant number of issues between the parties which, collectively, make up the difference between what has been claimed, what has been paid and what Mr McGoldrick now values the claim to be. A substantial proportion of the difference, however, is attributable to elements of the claim where Mr McGoldrick was unable to find any substantiation in SAP. I take the view that in relation to this claim I can be reasonably satisfied on the balance of probabilities that sufficient substantiation was provided to satisfy those who scrutinised the applications at the time, and that insofar as it is not now available, either on SAP or in hard copy, that is not sufficient in all the circumstances to lead me to conclude that it never existed or that these claims are not valid claims. That is particularly the case where, as I understand the evidence, some 54 of the 106 works instructions in question have either been finalised or their value has been agreed.
- 15.82 There was an issue as to whether or not Amey was entitled to claim out of hours payments at the rates applicable to the previous emergency response team rate, or whether – as Mr McGoldrick contended – it should be at the highways response team rate. Whilst I can see the logic of Mr McGoldrick’s approach, it seems clear to me on the balance of probabilities that there must have been a conscious decision to accept and to pay the slightly higher rate applicable to the emergency response teams than to the highways response teams, and that is not an agreement which should now be allowed to be reopened.
- 15.83 There was, however, also a dispute about whether or not the out of hours rates only apply to the hours worked in excess of the normal working hours as specified in the contract, or to all hours worked in excess of the employees’ contractual working hours. I prefer Mr McGoldrick’s view on this point, since in my view it must be the contractual hours which are the starting point as between Amey and Cumbria. The value of this element of the dispute is in the region of £40,000.
- 15.84 In conclusion, I am satisfied on the balance of probabilities that Amey is entitled to the amount claimed, less £40,000 being the one item where I am satisfied that Cumbria is correct, namely £314,628.45. In the same way as above, rather than seeking to allocate individual payments to this to produce an individual net claim, the appropriate course is to include this gross amount on Amey’s side of the ledger at final accounting stage.
- (4) The claim under works instruction F300087
- 15.85 This works instruction was issued on 1 April 2010 for the provision of what was then described as customer care teams in the Eden area. This was therefore an instruction issued within the trial period where the agreement was that Amey should be paid on a dayworks rate. However the amount claimed by Amey under it was £522,769.73, of which £296,808.17

relate to 401 gang days at Amey's claimed daily rate of £740.17, together with £225,961.57 for "generic labour and plant", together with £2,000 for dayworks materials. It appears that £328,880.46 has been paid, leaving £194,019.32 outstanding. Amey's position is that there is no basis for this works instruction not being paid in full, as set out at page 213 of its closing submissions.

- 15.86 Amey has removed this works instruction from its Better Highways team days claim and, hence, it is right that it should be considered separately here.
- 15.87 In his report, Mr McGoldrick stated (paragraph 926(ii)) that the claim is overstated by reference to his analysis of SAP, which appears in his appendix 13.8. He identifies an overpayment, based on that analysis. However, in accordance with the conclusions I have already reached, his assessment by reference to SAP alone cannot be relied upon. It appears that he has adopted the same approach as he did in relation to the Better Highways teams days claim, namely to strip out all of those costs with which he does not agree. It also appears to me to be based on the pure cost to Amey of its labour in terms of actual payments made and, thus, not to be based on either the highways response team rate or a dayworks rate.
- 15.88 In cross-examination, he said that he had checked the claim against the dayworks sheets which he had looked at, and they came to the amounts which had been paid. If that is right, and no-one has suggested that it is not, then it would appear that those responsible for scrutinising this claim had done so at the time, were satisfied that they were valid, and had paid them on the basis on which they had been originally rendered.
- 15.89 It appears to me that I should work on the basis that what was paid is consistent with what those scrutinising the applications at the time believed that Amey was entitled to be paid on the dayworks basis which, it had been agreed, should apply to the trial period. I am not satisfied that either party has made out its case to be entitled to claim any more (Amey) or to recover sums already paid (Cumbria). My view is that insofar as there is a difference that is, on the balance of probabilities, reflective more of a dispute as to the appropriate rate, as opposed to the gang days worked or the other costs claimed, and that I should not interfere with the contemporaneous assessment of what the time appears to have been an agreed dayworks rate.
- 15.90 It follows, in my judgment, that the value of this works instruction is to be valued in the sum of £328,880.46.
- 15.91 After dissemination of this judgment in draft Amey invited me to consider a suggestion by Mr Taft that I should re-assess this claim by applying the dayworks rate which I have held should apply in relation to the Better Highways works overall to the claimed number of gang days whilst allowing in full the other elements of the claim. However, since my judgment in relation to this works instruction is founded on my conclusion that the payment made at the time represented a fair assessment of Amey's overall entitlement, where the claim included a substantial claim for generic labour and plant in addition to a gang day rate, there is no basis for acceding to this invitation, and I decline to do so.

(g) Overall position

15.92 I have, I hope, determined all disputes between the parties as to the basis under which Amey is entitled to payment for Better Highways and the gross amounts which it is entitled to be paid. Following promulgation of the draft judgment the respective quantity surveyors have been able to produce an agreed reconciliation showing that after taking into account the original credit of £1,859,179 in relation to the Part 1 claim Amey must give credit for the sum of £279,941.09.

16. **Item 13: Better Highways trial support**

16.1 The pleaded case in relation to this element of Better Highways, pleaded value £691,499.80, is as follows:

“The trial of the Better Highways Model started in August 2009 and ran until March 2011 when the model was implemented. Amey agreed initially to second 3 of its staff to the Council free of charge. The parties entered into a secondment agreement with a duration of 3 months. A copy of that agreement is annexed at Schedule 2 hereto. Amey accepts that it was not entitled to be paid for its 3 members of staff for the period of the secondment agreement, but Amey does claim the costs of those seconded members of staff beyond the 3 month duration of the secondment agreement together with management time and vehicle costs for the staff involved in the delivery of the Better Highways trial support.”

16.2 As summarised by Cumbria in its closing submissions, the claim is in two parts. The first is for the 3 seconded staff, namely (1) Louise Johnson, an administrative assistant; (2) Dan Sowerby, a supervisor (Highways Steward for the Eden Area), and (3) Paul Little, a manager (Watchman-in-Chief on the Strategic Partnership for Highways Work in Cumbria). The 15-month period for which Amey claims costs of £274,462.92 runs from 1 November 2009 until 31 January 2011. The second part of the claim is for the cost of a further 19 managerial and support staff during the development and trial phases of Better Highways. The 18-month period for which Amey claims costs of £417,036.88 runs from 1 August 2009 until 31 January 2011.

16.3 It appears from paragraph 475 of Amey’s closing submissions that it claims payment under clause 45.1.4 of the highways special conditions. Amey’s case as advanced in opening was that the trial period was envisaged to last for no longer than 6 months, but in fact it started in August 2009 and roll-out did not start until a further full year later, in August 2010, and was not completed until the end of January 2011.

16.4 It appears to me that Amey is confusing its right to payment under the works instructions issued during the trial period and roll out period with its right to payment for specific seconded staff and/or for managerial and support staff. In the absence of a specific agreement, Amey’s only entitlement to payment arises under clause 45, as I have already held. On any view Amey’s local area overhead, which would include the costs of its managerial and

support staff, was comprised within the highways response team daily rate and if, as I have found, that is the appropriate rate for the Better Highways team, then it is comprised within that as well. If Amey had been entitled to payment in accordance with clause 45.1.4 then it would have been entitled to include claims for individual personnel if they fell within the “people” costs of the SSCC; otherwise they would fall within the specified working area overhead uplift. What Amey cannot do is to seek to make the present claims other than through that contractual structure, unless it is able to point to a specific agreement to that effect.

16.5 Cumbria, in its closing submissions, submits that insofar as these are claims made under the contractual structure, they are wholly unsupported by proper documentary evidence.

(1) The 3 seconded staff

16.6 I have been referred to the secondment agreements in question. The front page provides for the secondments to begin on 20 February 2010 and end on 20 August 2010, thus a 6 month duration. (Although this appears inconsistent with paragraph 2 of part 1, the handwritten amendments to that paragraph make it clear, in my view, that it is a 6 month rather than a 3 month secondment which has been agreed.) Paragraph 1 of part 1 states in terms that “the funding for this secondment will be the responsibility of Amey”. Paragraph 11 provides for an extension of up to 3 months with the written agreement of all parties.

16.7 In my view these secondment agreements are fundamentally inconsistent with Amey’s pleaded case that it was agreed that the first 3 months from August to November 2009 were free of charge to Cumbria, but after that they were not. Whilst I accept that all 3 were indeed involved in the Better Highways project until around the end of January 2011 there is no evidence that there was ever any discussion or agreement after the expiry of the free of charge period, whatever that was, to the effect that from then on the seconded staff would be charged to Cumbria. Indeed, in a contemporaneous internal email of 18 February 2010 Mr Forster was saying in terms that Amey would not be charging for these seconded staff. This is consistent in my view with Amey’s position at the time, which was to cooperate with Cumbria in relation to Better Highways as part of its overall strategy to achieve a contract extension. Moreover, as was put to Mr Forster in cross-examination, as long as Amey did not need to bring in other staff to cover for these 3 employees during the period of secondment, which they did not, this was a cost neutral exercise to Amey in the sense that the cost to Amey of employing the seconded staff would, as it always had been, be recovered from the local area overhead element of the payments being made by Cumbria under the contract. Whilst I appreciate that Amey may say that because of the disruption caused by the introduction of Better Highways it recovered a lesser local area overhead, that is the subject of a separate claim and, in any event, would not justify this claim being advanced on the basis that it is.

16.8 Moreover, there is no indication that Amey ever advanced the current claims at the time that the seconded staff were providing services. They were not included within the payment applications for the works instructions for Better Highways over this period, perhaps not surprisingly since it is difficult to see how providing seconded staff for a trial period could be

regarded as being part of routine and cyclic maintenance under clause 45 of the highways special conditions.

- 16.9 In my view, if Amey had wanted to make a claim for these seconded staff, it would have needed to make it plain in August 2010, at the same time as the trial period ceased and the roll-out period began, that it was going to do so, and that if Cumbria did not agree it would be withdrawing the seconded staff from the project. There is no evidence that it did this and in my view it cannot maintain this claim.
- 16.10 In the circumstances I need consider only relatively shortly the valuation of this element of the claim. It is addressed by the experts in their further joint statement at page 42 onwards. They agree on the salaries, other than in relation to Ms Sowerby, where there is a difference and where, on balance, I prefer Mr McGoldrick's explanation and reasons. Otherwise, I would have accepted the claim on the basis put forward, save in relation to the car costs. As to that, I am satisfied that under the SSCC travelling costs are claimable under item 13(a) of People 1, which means that it is not open to Amey to seek to recover car costs by treating them as if they were a van under CECA, which is the approach adopted by Mr Taft. It follows that in my view general car costs fall within the 75% charge 4 as part of the people overhead. If there was any basis for claiming them separately, they should have been recorded and costed as claimed within the monthly invoices. It follows that in accordance with the table at page 42 of the joint statement I would have adopted Mr McGoldrick's alternative 4, producing a valuation of £111,983.78.

(2) The 19 managerial and support staff

- 16.11 In my view the same objections apply to this element of the claim as apply to the seconded staff claim. I note that the internal email of 18 February 2010 to which I have already referred says that Amey would seek to claim all other costs and "as a minimum full overhead and margin on any cost incurred". However, there is no indication that at the time Amey considered that it was entitled to claim separately for specific identified management or support staff as a cost item, unlike in relation to Lilyhall, or that it was necessary for the times spent by those staff on Better Highways business to be recorded and collated so that they could be added to the monthly applications. This is particularly significant since, as I have already said, as from November 2009 there was a works instruction in place (E300615) to cover the trial costs for Eden, with F300087 covering the same costs from April 2010 onwards, in respect of which these claims could have been claimed under.
- 16.12 I have already found, in relation to F300087, that Amey claimed and received payments on a dayworks basis in accordance with the interim agreement reached and, I have no doubt, the same is true in relation to E300615. As Mr McGoldrick said (paragraph 925 of his main report) the claim for payment on dayworks would include a claim for overhead and margin. It follows, in my view, that this claim is subsumed within the claims already made and paid and, hence, there is no basis for any further claim to be made. Indeed, in my view the position is even weaker for Amey in relation to this element of the claim, in circumstances where there appears to have been no contemporaneous discussion let alone agreement to the effect that

these individual Amey employees were providing services specifically in relation to Better Highways for which Amey was entitled to further separate payment.

- 16.13 Again, if I am wrong about this, I express my views as to the valuation of this claim relatively briefly. In short, I am satisfied that Amey has produced insufficient evidence to justify any award at all under this head.
- 16.14 In cross-examination Mr Smith accepted that none of the individuals concerned completed timesheets, recording time spent on Better Highways. (Of course, as monthly paid operatives, they would not have been expected to complete timesheets, unless it had already been established that they should do so for the purpose of claiming separate payment on a bespoke basis.) It was put to him that the amounts claimed were no more than a guess. He said that they were based on an assessment by him, assisted by others, following discussions with the operatives in question, as to the proportion of time spent on Better Highways over the relevant period. However, the others he identified, Mr Forster and Mr Collins, when themselves asked, disclaimed any knowledge of or involvement in this element of the claim. More significantly, there are no documentary records to support the claim. There is no indication that the staff concerned were asked to keep records or, insofar as they kept records of their own initiative (for example Mr Little volunteered that he kept a diary) that these have been obtained or analysed.
- 16.15 As regards the claim for Mr Smith's own time, he said that he had been told in terms not to "interfere" with the Better Highways trial process, but nonetheless had included his assessment of his time based on his belief that he was required to "overview and support the process". He had assessed his time spent on Better Highways at 5% for the first 3 months, rising to 10% for the remaining 15 months, but I am quite satisfied that there is no basis at all for this other than as a pure guesstimate, well after the event, upon which I can place no real reliance.
- 16.16 Mr Collins clearly had no idea as to the basis for the claim on his behalf. Mr Foote accepted in cross-examination that he only worked approximately 1 day per week on Better Highways matters, whereas the percentage assessment for his time is 37%. Mr Johnson, again, in my view had little or no recollection as to what proportion of time he spent on Better Highways.
- 16.17 Despite a suggestion made for the first time in cross-examination by Mr Smith that additional resource was brought into the contract due to the diversion of staff to Better Highways, Amey has adduced no evidence that anyone was brought onto the team to service this contract to provide services which could not otherwise be provided due to these individuals being occupied with Better Highways. In short, it is clear that at the time it was perceived that whatever time these staff spent on Better Highways would either be recovered under the payment applied for and made in relation to specific works instructions or, otherwise, would be absorbed by Amey.
- 16.18 In the circumstances, I am satisfied that this claim fails.

17 Item 14: Better Highways impact cost

17.1 The pleaded case in relation to this element of Better Highways, pleaded value £1,883,597.79, is as follows:

“Item 14 is a claim for the reduced productivity of the available workforce and the reduction in uplifts received due to having less opportunity to carry out works which attracted an uplift as a result of a change in the way Amey delivered the services to the Council by the implementation of the Better Highways model. In addition, Amey claims additional costs incurred due to having to instruct third party sub-contractors to carry out certain services which, without the impact of the Better Highways model, would have been self-delivered.”

17.2 As pleaded, there were 4 separate elements to this claim: (1) a loss of local area overhead; (2) a loss due to additional subcontracting; (3) a loss of productivity due to skill diversion; (4) a loss due to under-utilisation of the surfacing and surface dressing gangs.

17.3 The loss of local area overhead claim was premised, as I understand it, on the basis that the ancillary Better Highways claims for overtime, plant and materials et cetera did not include any allowance for local area overhead, to which Amey was entitled. However this claim is no longer pursued as a result of Mr Taft’s investigations having revealed that these claims have been made under the SSCC and, hence, already include a sufficient allowance for local area overhead. The end result, financially, is that the claim value decreases from £1,883,597.79 to £1,393,226.71.

17.4 The first flaw in these claims is that I have already rejected their underlying premise, which is (paragraphs 492 – 493 of Amey’s closing submissions) that Better Highways was a significant change which involved a significant reorganisation of resources and disruption. Instead, I am satisfied, although there was some uncertainty during the trial period and the roll-out period as to the eventual form which Better Highways would take, in fact as introduced there was no significant difference between Better Highways and its predecessors, other than the increase in the number of gangs involved.

17.5 The second flaw in the claims is that they are premised on the basis that the increase from 12 highways response teams to 32 Better Highways teams involved an increase in the labour force from 24 to 64 operatives, resulting in Amey having to transfer 40 skilled operatives from measured work gangs to Better Highways teams, and to make up the difference through greater reliance on subcontractors. However, this analysis completely ignored the fact that the existing 24 highways stewards, whose role was made defunct as part of the changes, were transferred into the Better Highways teams, not surprisingly since they were already undertaking virtually identical work. Once this is taken into account, the true number of extra operatives which Amey needed to find was not 40, but only 16. This, inevitably, would have involved far less of an impact on the measured work gangs and consequential need to obtain subcontractors. Indeed, it goes further than that, because in paragraph 40 of his second witness statement Mr Smith had said that there was a pool of 107 available operatives from whom the 16 needed to be found. It follows that less than 20% of the available pool were in fact required

to transfer to Better Highways. Still further, Mr Smith also said that this pool of 107 itself excluded 90 further operatives who were “confined to specialist roles (e.g. street lighting, surfacing, grounds maintenance et cetera)”. The theory, therefore, that Amey’s profitable measured work operation was significantly affected by the introduction of Better Highways is, in my judgment, wholly undermined by this evidence.

- 17.6 Furthermore it is now apparent, as I have already recorded when finding for Amey in relation to the number of gang days worked, that a number of other operatives, including agency and subcontract operatives, were used to make up the Better Highways teams. This is not surprising in my view, because it would have been very odd had Amey, as a sensible commercial organisation, chosen to take away skilled in house operatives from the profitable work in which they were extremely proficient to undertake fairly basic level Better Highways works, when it could easily have deployed less skilled, or agency or subcontract labour, to undertake that work instead. Whilst I accept that Mr Smith insisted in cross-examination that this is still what happened, I reject that evidence as inconsistent with Amey’s own documentary evidence. Furthermore, whilst for tactical reasons this suggestion was adopted in questions put to other Amey witnesses in cross-examination, I do not think that it can be said to represent Cumbria’s positive case. Indeed, when Mr Turner was cross-examined on the basis that he had taken employees away from the planned maintenance gangs to work on Better Highways, which had caused difficulties with planned maintenance, he refuted that suggestion, and he came across to me as genuine and reliable on this point. The reality is, as I have already said, that once Amey knew that it was not going to obtain a contract extension in January 2011 it had no incentive to invest in the long-term success of Better Highways, and every incentive to make up the Better Highways teams with less skilled or agency or subcontract labour, since it received the same daily rate regardless of the productivity of those gangs.
- 17.7 The third flaw in the claim is that there is no contemporaneous evidence of this complaint being made. There was a limited complaint about the loss of wet weather work at the time of the discussions about the new rate, but no further or more general complaint was made at that time. To the contrary, Mr Forster’s October 2010 review not only makes no reference to this being a problem, whether actual or anticipated, but specifically refers to Amey having taken a decision to expand its use of subcontract labour towards the end of the contract, not because it needed to man the better highway gangs, but in order to ensure that it did not run the risk of being left with employees who Cumbria did not want to take over. I also note that Mr Forster, in paragraphs 149 to 150 of his first witness statement, when addressing the complaint that Amey lacked resources due to undertaking third-party works, rather revealingly in the context of this claim said that in fact Amey sometimes had insufficient work to do, and 2 of the examples he gave in paragraph 151 refer to the position towards the end of 2011, at precisely the same time that Amey is now saying it did not have enough skilled men to undertake planned work.
- 17.8 The fourth, and final, nail in the coffin of these claims is that there is no obvious contractual route through which they may be pursued. As has already been noted, other than through the “pain/gain” provisions of Schedule 13 Cumbria had no obligation to provide Amey with any

minimum quantities of work, let alone minimum quantities of any work of a particular type. Instead, Amey was obliged to undertake as much or as little work of a particular type as Cumbria might choose to instruct. It follows that Amey cannot assert that it had a contractually protected expectation that Cumbria would not order routine and cyclic maintenance work in such quantities that it would impact on Amey's ability to resource its measured work gangs. Nor can it assert, nor indeed does it assert, that Cumbria was obliged to provide it with a certain minimum quantity of measured work, or that Cumbria would not instruct Better Highways gangs to undertake small scale repair work, such as patching work, which might otherwise have been given to measured work gangs, or maintenance work which otherwise might have been given to surfacing or surface dressing gangs to undertake in wet weather.

17.9 It appears that Amey seeks to advance these claims under clause 45.1.4 of the highways special conditions. I have found that the works instructions to provide Better Highways teams were instructions which fell within clause 45, but not under clause 45.1.4. However, even if I had agreed with Amey that they should have been valued under clause 45.1.4, that valuation to be conducted under the SSCC, there does not appear to be any conceivable basis for seeking to include the current claim under the SSCC, which makes no provision for claiming consequential losses of this nature. It is not open to Amey to contend that there should also have been some parallel valuation of this claim, whether under the compensation event provisions of the highways special conditions or under the change request procedure in Schedule 6 of the services agreement. In any event, I have already found that I do not accept that either of these provisions can apply to the circumstances in which the Better Highways works instructions were issued. Finally, since there is no claim, nor can there be one given the contractual provisions to which I have referred, for damages for breach of contract it is simply not open to Amey in my view to advance these claims as a matter of law.

17.10 These conclusions are enough to dispose of each of the claims. However, for completeness, and since the claim was advanced and resisted on the detail as well as the broad points, I should go on to consider the individual claims, as shortly as I reasonably can.

(1) Claim 14(B): the additional subcontracting claim

17.11 There is a further difficulty with this particular claim, over and above the general difficulties referred to above, which is that it seeks to recover from Cumbria one specified part of the additional cost to Amey of subcontracting works in the last 2 years of the contract. As such, it is closely connected with claim 20, the time bound works claim. Amey's case is that the increase in subcontracting in years 6 and 7 is due either to the impact of Better Highways or to the impact of the time bound works, and its approach is to calculate its overall increased costs due to subcontracting and then to allocate that cost to each on a percentage basis.

17.12 It is apparent, therefore, that what Amey is implicitly asserting is that all of its increased costs of subcontracting in years 6 and 7 are due to either Better Highways or time bound works, and that both are causes for which Cumbria is responsible. It is therefore a claim which is vulnerable to criticism on the basis that if and insofar as the court is satisfied that there are, or

that on the balance of probabilities there may be, other causes of or explanations for the increased subcontracting, which cannot be separated out from the causes relied upon by Amey, then it is a claim which fails on the basis that it is an illegitimate global claim.

- 17.13 In closing submissions Cumbria referred me to the commentary at paragraph 6.076 of Hudson's Building and Engineering Contracts.

“Employers commonly seek to characterise Contractor’s claims as “global” in the belief that to attach that now unwanted epithet to a claim will lead to its failure. The belief is not always ill founded. It is important therefore to understand what constitutes a global claim. A global or total cost claim has been defined as a claim where “the causal connection between the matters complained of and their consequences, whether in terms of time or money, are not fully spelt out.” That definition relates to the manner in which the claim is formulated rather than its inherent nature. A global or total cost claim is simply, as its name implies, one in which the cost of the work incurred by the Contractor in its execution is compared with the tender or contract allowance for that work to arrive at the claimed amount. The court or tribunal is then invited to infer that the entirety of the cost overrun is the result of breaches by the Employer or events for which they are responsible. There are 3 obvious objections to such a claim:

- (1) It will only be appropriate for the tribunal to make such an inference where it can be satisfied that there are no other reasons apart from the Employer’s breach for the cost overrun.*
- (2) The approach assumes in the Contractor’s favour that the tender allowance was adequate, that the Contractor proceeded with an appropriate degree of expedition and efficiency in the circumstances in which it found itself and that there were no other matters affecting progress than those for which the Employer was responsible.*
- (3) The total cost approach tends to subvert the basis on which the contract was awarded. It converts a lump sum or remeasurement contract into a cost reimbursable one.”*

- 17.14 The editors also refer to the decision of Akenhead J in Walter Lilly & Co Ltd v Mackay [2012] EWHC 1773 (TCC), where he summarised the relevant principles. I refer to and adopt with gratitude his summary at paragraph 486, which I set out below insofar as relevant to this case:

“(a) Ultimately, claims by contractors for delay or disruption related loss and expense must be proved as a matter of fact. Thus, the Contractor has to demonstrate on a balance of probabilities that, first, events occurred which entitle it to loss and expense, secondly, that those events caused delay and/or disruption and thirdly that such delay or disruption caused it to incur loss and/or expense (or loss and damage as the case may be). I do not accept that, as a matter of principle, it has to be shown by a claimant contractor that it is impossible to plead and prove cause and effect in the normal way or that such impossibility is not the fault of the party seeking to advance the global claim. One needs to see of course what the contractual clause relied upon says to see if there are contractual restrictions on global cost or loss claims. Absent and subject

to such restrictions, the claimant contractor simply has to prove its case on a balance of probabilities.

(b) ...

(c) It is open to contractors to prove these 3 elements with whatever evidence will satisfy the tribunal and the requisite standard of proof. There is no set way for contractors to prove these 3 elements. For instance, such a claim may be supported or even established by admission evidence or by detailed factual evidence which precisely links reimbursable events with individual days or weeks of delay or with individual instances of disruption and which then demonstrates with precision to the nearest penny what that delay or disruption actually cost.

(d) There is nothing in principle “wrong” with a “total” or “global” cost claim. However, there are added evidential difficulties (in many but not necessarily all cases) which a claimant contractor has to overcome. It will generally have to establish (on a balance of probabilities) that the loss which it has incurred (namely the difference between what it has cost the contractor and what it has been paid) would not have been incurred in any event. Thus, it will need to demonstrate that its accepted tender was sufficiently well priced that it would have made some net return. It will need to demonstrate in effect that there are no other matters which actually occurred (other than those relied upon in its pleaded case and which it has proved are likely to have caused the loss). It is wrong, as Counsel suggested, that the burden of proof in some way transfers to the defending party. It is of course open to that defending party to raise issues or adduce evidence that suggest or even show that the accepted tender was so low that the loss would have always occurred irrespective of the events relied upon by the claimant contractor or that other events (which are not relied upon by the claimant as causing or contributing to the loss or which are the “fault” or “risk” of the claimant contractor) occurred may have caused or did cause all or part of the loss.

(e) The fact that one or a series of events or factors (unpleaded or which are the risk or fault of the claimant contractor) caused or contributed (or cannot be proved not to have caused or contributed) to the total or global loss does not necessarily mean that the claimant contractor can recover nothing. It depends on what the impact of those events or factors is. An example would be where, say, a contractor's global loss is £1 million and it can prove that but for one overlooked and unpriced £50,000 item in its accepted tender it would probably have made a net return; the global loss claim does not fail simply because the tender was underpriced by £50,000; the consequence would simply be that the global loss is reduced by £50,000 because the claimant contractor has not been able to prove that £50,000 of the global loss would not have been incurred in any event. Similarly, taking the same example but there being events during the course of the contract which are the fault or risk of the claimant contractor which caused or cannot be demonstrated not to cause some loss, the overall claim will not be rejected save to the extent that those events caused some loss. An example might be (as in this case) time spent by WLC's management in dealing with some of the lift

problems (in particular the over-cladding); assuming that this time can be quantified either precisely or at least by way of assessment, that amount would be deducted from the global loss. This is not inconsistent with the judge's reasoning in the Merton case that "a rolled up award can only be made in the case where the loss or expense attributable to each head of claim cannot in reality be separated", because, where the tribunal can take out of the "rolled up award" or "total" or "global" loss elements for which the contractor cannot recover loss in the proceedings, it will generally be left with the loss attributable to the events which the contractor is entitled to recover loss.

- (f) *Obviously, there is no need for the Court to go down the global or total cost route if the actual cost attributable to individual loss causing events can be readily or practicably determined. I do not consider that Vinelott J was saying in the Merton case (at page 102 last paragraph) that a contractor should be debarred from pursuing what he called a "rolled up award" if it could otherwise seek to prove its loss in another way. It may be that the tribunal will be more sceptical about the global cost claim if the direct linkage approach is readily available but is not deployed. That does not mean that the global cost claim should be rejected out of hand.*
- (g) *DMW's Counsel's argument that a global award should not be allowed where the contractor has himself created the impossibility of disentanglement (relying on Merton per Vinelott J at 102, penultimate paragraph and John Holland per Byrne J at page 85) is not on analysis supported by those authorities and is wrong. Vinelott J was referring to unreasonable delay by the contractor in making its loss and/or expense claim; that delay would have led to their being non-compliance with the condition precedent but all that he was saying otherwise was that, if such delay created difficulty, the claim may not be allowed. He certainly was not saying that a global cost claim would be barred necessarily or at all if there was such delay. Byrne J relied on Vinelott J's observations and he was not saying that a global cost claim would be barred but simply that such a claim "has been held to be permissible in the case where it is impractical to disentangle that part of the loss which is attributable to each head of claim, and this situation has not been brought about by delay or other conduct of the claimant". In principle, unless the contract dictates that a global cost claim is not permissible if certain hurdles are not overcome, such a claim may be permissible on the facts and subject to proof."*

17.15 Amey is advancing its case on the basis of a comparison between the extent of subcontracting planned for at tender stage and the actual subcontracting in the last 2 years of the contract. However, Amey had already, over the first 5 years of the contract, subcontracted more than it had planned to do at tender stage: see appendix 14 to Mr McGoldrick's report. There is no reason to believe that it would not have continued in the same way regardless of the 2 particular causes relied upon by Amey. Amey has not attempted to establish, by analysis, to what extent those 2 particular causes increased the level of subcontracting beyond that which might otherwise have been expected having regard to the previous 5 years. In the circumstances, it is difficult to see how Amey can seek to hold Cumbria liable for all of the

subcontracting above and beyond what was planned at tender stage, but Amey has provided no material which would enable the court to ensure that Amey is only compensated for the impact of the 2 causes for which Cumbria is responsible.

17.16 It is apparent from the October 2010 review, to which I have already referred, that Amey had also already decided to increase its reliance upon subcontracting, for its own perfectly understandable commercial reasons. Again, however, it has not sought to distinguish between the consequence of this decision to increase its subcontracting, for which Cumbria cannot be held responsible, and the causes for which it seeks to hold Cumbria responsible.

17.17 For these further reasons I am satisfied that this element of the claim is not established.

17.18 Addressing the question of quantification, in case I am wrong and because it was investigated so thoroughly at trial, Amey's approach is to compare what it says was its local area overhead margin of 36.37% on self-delivered work with what it says was its margin of 19.84% on subcontracted work.

17.19 Although Mr McGoldrick had set out to disprove that the local area overhead margin on self-delivered work was as great as Amey contended, under cross-examination he had to accept that there was an arithmetical error in his calculations, and that his assessment based on a revised calculation was more consistent with Mr Taft's figure. I therefore see no reason not to accept Mr Taft's figure.

17.20 The margin on subcontracted work was calculated on the basis of what Amey had previously described as a "random" sample of 43 patching works instructions undertaken in 2011. Perhaps unsurprisingly, given the vigorous disputes as to random sampling more generally in this case, Amey chose to instruct Dr Van Liere to analyse the margin on all subcontracted patching works over the duration of the contract, from which he arrived at a revised margin of 24.6%. There appears no proper basis for challenging this assessment, so that if there had been a valid claim then the difference between the 2 margins would appear to be an appropriate basis for calculating the claim. Insofar as relevant, I reject Cumbria's argument that the margin for all subcontracted works should be adopted; there appears to be no basis for using margins obtained, for example, on specialist subcontractor work, when considering what margin would have been obtained on patching works.

17.21 However, if the claim was valid, it would have required to be reduced in accordance with the reduction between the 40 transferred employees which formed the basis of Amey's claim and the 16 employees who were actually transferred from other duties onto Better Highways.

17.22 In short, however, the claim as advanced has not been made out, and there is no acceptable alternative claim which Amey could invite me to make based on a proper or acceptable analysis.

(2) Claim 14(C): loss of productivity due to skill diversion

- 17.23 This claim is advanced on the basis of a loss of productive income due to skilled employees being diverted to Better Highways. Amey contends in its closing submissions that the tender analysis shows a substantial difference between turnover per operative undertaking basic maintenance works and undertaking self-delivered works, and Amey claims the difference between the two.
- 17.24 In the same way, however, as with the previous claim, even if it was otherwise valid there would need to be a reduction from the claim based on 40 transferred employees to a claim based on 16 transferred employees. Mr Taft sought to suggest that if it had not been for Better Highways Amey would have been able to transfer the highways stewards onto the more profitable work, however that raises the immediate question; if these highway stewards were able to undertake this more productive work, and if the work was there to be done, why they had not been transferred to that work before the introduction of Better Highways. Mr Taft's argument seems to me to be a hopelessly speculative attempt to argue his way out of an obvious difficulty with Amey's case which had not previously been appreciated, and I reject it.
- 17.25 There are also a number of other questionable elements or assumptions in relation to this claim, summarised in paragraph 51 of Cumbria's closing submissions. The most fundamental problem for Amey, in my view, is that if there is a genuine loss it would be the loss arising from deploying an additional 16 local employees to the Better Highways gangs to make up the numbers required. It would be necessary, however, given Mr Smith's evidence, to identify who the individual 16 operatives were, to identify their skills and experience, to establish that they had historically worked on the profitable self-delivered work elements of the contract, so as to be able to establish the basic evidential platform for the claim. This would be particularly important insofar as there was any question as to why Amey might have needed to transfer skilled men from profitable work as opposed, for example, to transferring less skilled men from other less profitable work, or taking on agency employees. However, Amey has made no attempt to evidence its claim in this way.
- 17.26 A further substantial difficulty with this claim, in my view, is its interrelationship with the previous claim. If I had allowed the subcontract claim, that would have fully compensated Amey for the whole of its lost margin. It follows that Amey would not have been entitled to succeed on this claim as well. Mr Taft appeared to try to argue around this by saying that in addition to the profitable self-delivered work it would also have been open to Amey to have obtained equally profitable work from third-party employers. However that seems to me to be pure supposition; one must enquire why, if there was this other equally profitable work available, Amey did not take it up? Mr Forster's October 2010 review refers (page 7) to Amey having turned away from third-party work, which appears wholly inconsistent with this argument. Again, therefore, that seems to me to be an example of Mr Taft trying to support Amey's case through speculation, rather than analysis and evidence.
- 17.27 Again, therefore, in my view this element of the claim fails.

- (3) Claim 14(D): loss due to under-utilisation of the surfacing and surface dressing gangs

- 17.28 As I have said, the premise of this element of the claim is that previously Amey had a bank of low maintenance work which it would give to these gangs to do when, for whatever reason, they were unable to undertake their primary role and would otherwise have been inactive but which was subsequently undertaken by the Better Highways teams so that they were left standing idle on such occasions instead.
- 17.29 The claim is calculated as the cost of standing time for the gangs over the periods in question, to which local area overhead has been added, producing a total of £218,806.43.
- 17.30 There is a fundamental problem with this claim. As Mr Raymond observed, Amey had no contractual entitlement to have its surfacing and surface dressing gangs undertake this work, and Cumbria gave no guarantee to Amey, whether in the contract or otherwise, that it would be allowed to do so. In the circumstances, it is difficult to see how Cumbria could be held financially responsible for the consequences of a decision which it was perfectly free to take in its own assessments of its own best interests. Amey has been unable to come up with any answer to this fundamental objection.
- 17.31 Cumbria also observes that there is no evidence of the standing time the subject of the claim. All that Mr Taft had to go on was some sample evidence of these gangs doing other work. He accepted in cross-examination that the documentary material was “fragmented”. This is notwithstanding the repeated efforts made by Cumbria to obtain proper information to support this element of the claim, which are summarised in Cumbria’s closing submissions, and Amey’s assurance that information to support the claim would be provided in its evidence. However, Amey has signally failed to provide any such supportive evidence.
- 17.32 There is also a real problem of cause and effect. Again, the difficulty for Amey is that its claim has been advanced on the premise that Better Highways teams took a further 40 men to do work which it had not previously done through the predecessor teams. However that ignores the work also undertaken by the highways stewards. It is difficult to see how such a substantial claim could be advanced on the basis of an increase in the number of operatives assigned to this sort of work of the order of only 16 men over 2 years.
- 17.33 In short, in my view this is another claim which has been advanced on a theoretical basis, rather than on a basis which is supported by sufficient evidence to justify it as a real claim in the real world.

(4) Conclusion

17.34 In my judgment Amey’s claim 14 fails in its entirety.

18. **Item 17: patching thickness**

18.1 The pleaded case is as follows:

“Item 17, Patching Thickness: £2,094,076.68

The Council (and/or its Overseeing Organisation) were obliged to provide both Works Information and Site Information pursuant to Contract Data, Part I of the Highways Special Conditions.

In particular, Appendix 7/1 of the Highways Appendices, Permitted Pavement Options, Schedule 3 states:

“Permitted construction materials will be detailed on each appropriate Works Instruction.”

Appendix 7/71 of the Highways Appendices, Excavation and Reinstatement of Existing Services, Paragraph 2 states:

“The location and types of any areas of patching will be described in this schedule issued with each appropriate Works Instruction. The work will be instructed as Planned Work.”

The general directions within the preambles to the Schedule of Rates at Paragraph 2 states:

“In the Schedule of Rates the sub-headings and item descriptions identify the work covered by the respective items read in conjunction with the matters listed against the relevant marginal headings “Item coverage” in Chapter IV of the Method of Measurement for Highway Works, these preambles and the amendment to the Method of Measurement immediately following these preambles. The nature and extent of the work performed is to be ascertained by reference to the drawing specification appendices conditions of contract and the Works Instructions.”

Appendix 1/12 of the Highways Appendices Setting Out states:

“The Overseeing Organisation will supply the contractor with the setting out details, ie in the form of drawings and information stated on the Works Orders or the actual marking out on site ... prior to commencement of the works.”

The Council failed to provide any design or detailed investigation within its Works Instructions, but rather included a reference to a patching item in the Schedule of Rates. The depth of construction was not provided by the Works Instructions. Nor did the Works Instructions describe the actual scope of works required at a particular site. The Council failed to comply with the contractual provisions identified hereinabove and/or with the implied term as to co-operation.

The consequence of the Council’s failure to design the works required or to specify the depth of existing layers meant that Amey attended each site without any knowledge of the existing road and therefore were prevented from being able to plan efficiently and execute the patching works efficiently.

Amey therefore seeks its consequential costs incurred in dealing with the work which was inadequately instructed with incorrect measurements.

As appears from the quantum annexure attached at Schedule 2 hereto, Amey has assessed its loss of efficiency in the laying operations which caused reduced outputs and under-recovered resource costs. The quantum claimed is particularised in the quantum annexure attached at Schedule 2 hereto and Amey claims the sum of £2,094,076.68 by way of damages for breach of contract as set out herein.”

18.2 There are 3 issues, all in dispute, namely (1) liability; (2) causation; and (3) quantification.

(1) Liability

18.3 In paragraph 508 of its closing submissions Amey placed reliance on clause 177AR(3) of the service specification, which as material provides as follows:

“A Works Instruction shall contain the following information as deemed necessary by the Overseeing Organisation:

(i) the exact nature and extent of the works to be executed and completed, including detail of quantities;

...

(iv) drawings and details showing the extent and nature of the works.”

18.4 In my view this is the most relevant provision. Appendix 1/12 adds nothing material, save that it does make it clear that actual marking on site is a permitted alternative to providing information in or with the works instruction. It also appears to be implicit in paragraph 2 of appendix 7/71 that it is sufficient for “the location and types” of patching areas to be provided. Paragraph 5 of that appendix states that “detail of each type of reinstatement or patch will be in accordance with the following reinstatement types ...”. It appears to follow that Amey has to demonstrate that contractually it is not sufficient for the required “detail” to be provided simply by ordering 1 of the particular patch type options.

18.5 Factually, it is not in dispute that all that Capita/Cumbria did in the vast majority, if not all, cases was to instruct patches to be laid by reference to a works instruction with a supporting schedule, the schedule identifying the locations, areas and patch types the subject of the instruction. In many, if not all, cases the patches were also identified by being marked out on the road. Amey has not been able to point to any contemporaneous correspondence or minutes of meetings in which a complaint was made by Amey that this was not in accordance with the contractual obligations imposed on Capita/Cumbria. Although there was some generalised evidence by some Amey witnesses that complaints were made about the quality of the information provided by Capita/Cumbria, in my view that shows at best that on isolated occasions, where Amey was particularly frustrated that the actual conditions were different to those which they had anticipated, they were unhappy that the local area inspector had not used his local knowledge to give them some more information, assuming that he had it. What I am quite clear about is that there was no attempt made to complain about this over the entire duration of the contract as being a significant matter, representing a serious breach of contract by Cumbria, and which was causing Amey significant losses.

18.6 It is also not immediately apparent precisely what Amey contends was required of Capita/Cumbria in terms of further details. It appears to be said that Capita/Cumbria was required to provide a precise and an accurate description of the existing surface to be replaced, including its area and, most significantly, the nature and depth of the existing road surface(s) and where relevant any base, sub-base and foundation. In summary, it appears that Amey’s case is that it was entitled to receive a design which was sufficient to allow it to order the right type and quantity of materials in advance so that it could start and complete work without any delay or disruption due to the circumstances on site being different to those which it had assumed from the details provided.

- 18.7 In my view, however, there is no contractual basis for imposing such a wide ranging obligation upon Capita/Cumbria. In my view Capita/Cumbria was perfectly entitled to provide the required details simply by specifying the type of patch required, in circumstances where the individual patch types were specific as to whether or not the obligation was to remove the existing surface course, whatever depth it was, and replace it with a specified depth (type 2 patches) or to remove the existing surface to a specified depth and to replace it with a specified depth (type 3, 4 and 5 patches) and by specifying the dimensions of the patch to be provided, either in the schedule accompanying the works instruction or by marking the area out on site, or both. I consider that the obligation to specify the “exact nature and extent of the works to be executed and completed, including detail of quantities” was satisfied, as paragraph 5 of appendix 7/71 contemplates, by providing an instruction to install a patch of one of the specified types together with details of the location and area. If it had been intended that more was required, then the contract would have specified what more was required, in circumstances where there could be considerable room for doubt and debate about how much more detail was reasonably required.
- 18.8 I am fortified in this view by the fact that Capita/Cumbria’s obligation to provide details was qualified by the words “as deemed necessary”. Whilst I would accept that this must be read as an obligation to provide what was reasonably deemed necessary, that still leaves Capita/Cumbria with a large measure of discretion, and I am satisfied that in the ordinary case Capita/Cumbria could reasonably deem it necessary simply to follow their ordinary practice. The necessary implication of Amey’s case is that in every case it would have been unreasonable for Capita/Cumbria to consider it unnecessary to provide what was in effect a guaranteed design based on an intrusive investigation to establish the depth of the surfaces and the condition of the levels beneath. It is plain, in my view, that this is a completely unrealistic suggestion. The only way in which it could be achieved would be for Capita/Cumbria to arrange for coring samples to be taken of each area where a patch was to be instructed, from the very smallest up to the largest, if necessary with a sufficient number in each larger area to be able to provide reasonable information as to the conditions across the whole area of the proposed patch, for those samples to be tested, and for a design to be worked up based on that information. Amey has produced no evidence to show that this is something which is ever done in relation to the vast majority of patches, let alone usual practice, and let alone expressly required by the terms of any of the contract documents in this case. It is, I think, readily apparent that in the case of smaller patches it would cost as much if not more to undertake this initial exercise than it would to lay the patch itself, and that in most cases it would be a completely pointless exercise.
- 18.9 It is also relevant that the contract, being a re-measurement contract, provided some protection for Amey if the conditions on site turned out to be different from those envisaged at the time the works instruction was issued. If, when Amey arrived on site, the area in question was greater than indicated, then Amey’s obligation was either to install the patch to the required contract specification, insofar as that was possible, or to raise it as a discrepancy with the area inspector, as it was required to do under the early warning provisions in clause 6 of the highways special conditions, so that if a greater area was instructed it would be paid for on the basis of a remeasure. It should be noted that an area might be greater than indicated in the

works instruction or as marked on the road simply because the surface had deteriorated since the original inspection and instruction, and not necessarily because of any error on the part of the area inspector concerned.

- 18.10 In my view the same position applies if, when Amey started to excavate the existing surface, it transpired to be either thicker or thinner than envisaged by reference to the patch type ordered or, for example, the existing base, sub-base or foundation was problematic, either because there were pitching stones present or because the existing base, sub-base or foundation was seriously deteriorated. Again Amey could simply have undertaken the required works, if that was possible; otherwise it could or should notify the area inspector and seek instructions which would, where appropriate, involve for example an instruction to remove a greater or lesser depth of existing surface and/or to repair or build up an existing base, sub-base or foundation, using a regulating course or some other method. I accept the evidence of Mr Collins that this could be a problem if, for example, the patching depth which was eventually required was somewhere in between one of the specified patch depths, but there is no hard evidence that this could not have been, and was not in practice, dealt with on the basis of using, for example, some intermediate rate. The same is true if, for example, regulating material had to be laid in order to replace an existing base, sub-base or foundation in poor condition or if, for example, pitching stones had to be removed. In many cases it appears that where Amey was unable to lay a patch to the required depth it simply laid the patch to the best depth possible, either with the sanction of Capita/Cumbria or of its own volition, but claimed payment in accordance with the original instruction. In this way there was, in practice, a system of swings and roundabouts operated; although there would be cases where Amey might lose out because the actual conditions differed from the envisaged conditions, there would be other cases where Amey would profit from it.
- 18.11 It follows that in my view Amey's claim fails at the first hurdle, which is that it is unable to demonstrate that the way in which Capita/Cumbria ordered patching works by reference only to location, area and patch type was a breach of its contractual obligations.
- 18.12 It is also worth emphasising that this is not a claim for the actual costs of having to lay patches to a greater area or depth than initially instructed. As already made clear, the claim is about the time and, hence the cost, consequences of Amey attending site, discovering that more was required than anticipated, and its consequential loss of productivity whilst waiting for instructions and/or waiting for the requisite type and quantity of materials to be delivered. In my view the real complaint therefore is not the quality of the information provided when the works were ordered, but the consequences of the actual conditions being so different from those anticipated that there was a need to seek further instructions or undertake works which required materials which had not been anticipated, either in type or quantity, by Amey. As this analysis makes clear, what this claim is really about is Amey seeking to treat Cumbria as giving some form of contractual warranty that the actual road conditions would be such as would enable them to lay a patch to the specified area and depth without delay or difficulty.

- 18.13 The obvious means by which such a claim could be made would be under clause 46 of the highways special conditions, the compensation event clause. However, the fundamental difficulty with this argument is that:
- (i) Clause 46.1.14 provides that a compensation event occurs where “the contractor encounters physical conditions which ... an experienced contractor would have judged at the contract date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for them”.
 - (ii) Clause 46.1.25(e) provides that “in preparing his tender the contractor is assumed to have taken into account ... (e) everything else that might affect the contractor’s performance of his obligations under this contract including encountering unforeseen physical conditions and artificial obstructions but excluding compensation events”.
- 18.14 The combined effect of these 2 provisions, in my view, is that in order for Amey to make a claim it would have to show that an experienced contractor would have considered this sort of occurrence to have such a small chance of occurring that it would have been unreasonable to allow for it in its tender. However, on all of the evidence which I have received, it is clear that this sort of occurrence was entirely foreseeable, particularly in the context of the type of minor evolved roads so common in the more rural areas of Cumbria. It follows, in my view, that the contractual scheme envisages an allocation of risk, whereby Amey includes in its price for the indirect consequences of this sort of occurrence, whilst recognising that it will be entitled to be paid on the basis of a remeasure if additional quantities or materials are required.
- 18.15 Whilst Amey has pleaded its case on the basis of breach of an implied term as to co-operation as well as non-compliance with the contractual provisions to which I have referred above, it does not seem to me that breach of an implied term as to co-operation, even assuming there is room for the implication of such a term given the detailed terms of the contract in this case, could enable Amey to circumvent the detailed contractual provisions as to the obligations imposed on the parties and the allocation of risk in such circumstances.
- 18.16 Although I heard a fair amount of evidence as to what happened in practice, and although there were some differences in emphasis, the broad picture was not significantly in dispute.
- 18.17 Mr Smith was upfront in his evidence that this claim was not one which was intimated originally, and was only advanced in response to Cumbria’s criticisms of its patching works and, in particular, Cumbria’s complaint that Amey had not laid patches to the contractual thickness required. He also said that the claim for additional material costs was not pursued because it was not financially worthwhile; that answer surprised me since that element of the claim had originally been put at around £970,000.
- 18.18 Amey had based its case on the selection of an extremely limited sample of patches. Thus it had selected only 15 individual patches which, it contended, showed the consequences of Cumbria failing to provide the requisite detail in terms of its actual efficiency, as compared to its anticipated efficiency. Mr Smith was asked about one, ordered in works instruction

D100111, where the daily record sheets completed by Amey's supervisor provided a useful summary of what had happened on that day. In particular it recorded that there had been rain that day, causing problems with water running of the fells, that there had also been a problem because the patches had "come out deeper than they should have, using more binder course" so that 2 loads were required, and that there was also a delay in obtaining the wearing course. That is a very good illustration of the difficulties Amey faces in advancing this claim. Whilst it is perfectly possible that the need for 2 loads of binder course is an example of the difficulties which Amey refers to, in so far as Amey is unable to identify the delay and reduced output caused by that factor, as opposed to working in wet conditions and the delay in obtaining the wearing course, neither of which can be said to be Cumbria's responsibility, it faces the problem that unless the impact of these causes are separated out the claim is subject to the objection that it is a "global claim".

- 18.19 In his first witness statement Mr Collins had referred (paragraphs 99 to 106) to the fact that when this issue had arisen in relation to patching undertaken in Allerdale in November 2007, it had been resolved through a re-measurement based on the actual depth involved, but without any further complaints or claim being made that Capita/Cumbria was responsible for this through providing insufficient detail in the works instruction. In paragraphs 225 to 229 he refers again to this claim and, in paragraph 229, claimed that "the vast majority of works instructions were inaccurate and involved Amey finding out how much patching had to be done when the operatives arrived on site, as there was insufficient information available for virtually any site". He went on to explain how he had introduced a variation sheet to be used in such circumstances, but said that it did not work, because the local representatives reverted to the previous practice of reaching local agreements without the need for formality. It is also worth noting that the contemporaneous reasons given for introducing the variation sheet were not to record potential claims by Amey, but to defend itself against criticism by Capita/Cumbria that it had not laid patches to the requisite contract depth.
- 18.20 In cross examination he confirmed that his complaint about the lack of information in the works instructions was never raised nor escalated as a formal problem, as it ought to have been under the contract. He was also taken to one of the other 15 examples relied upon by Amey, from works instruction D10116, where the daily record sheet recorded heavy rainfall causing problems, and difficulties in tying in the new material into the old road surface, but did not record any problem caused by the patch being different in thickness or area to that instructed. Whilst Mr Collins says, and he may well be right, that around 80% of patching works instructions resulted in a remeasure, that does not of itself prove that 80% of jobs were disrupted due to differences between the area and depth instructed and encountered on site. If that had been the case, and was leading to real problems in terms of reduced output and, hence, loss of margin, I have no doubt that it would have been raised explicitly by Amey on a regular basis throughout the course of the contract. It appears from Mr Collins' evidence that Amey was able to develop processes to minimise any disruption caused by this sort of problem, for example by making arrangements with its supplier, Cemex, to ensure that its weekly materials call-off had sufficient slack to pick up if there was a serious problem.

- 18.21 Mr Graham's evidence was to similar effect. Mr Johnson was cross-examined by reference to some of the daily record sheets, from which it became apparent that all 15 of Amey's examples have been taken from patching undertaken in late 2008 in his specific area, and that 14 of the 26 available sheets appear to have been produced by a Mr Roly Thompson, who was responsible for undertaking machine laid as opposed to hand laid patching works. As will be apparent, it is clear that the material to support Amey's case on liability has been selected from an extremely limited source. Moreover some, but by no means all, of the daily record sheets examined do indicate a problem with the depth of the patching. Others do not indicate any particular problems, or in one case, indicates a problem with a burst pipe and an injury, and there are a number of references to problems caused by heavy rainfall or water. Again, it is apparent that it is not possible for Amey to say that all of the problems of delay recorded on these daily record sheets are solely the result of information provided being insufficient detailed and different from the actual site conditions.
- 18.22 Mr Northrop's evidence was again to similar effect, and he was taken to another example, from works instruction D101243, where the daily record sheets refer to stoppages due to heavy rain and the planer sinking due to underlying ground conditions.
- 18.23 It did not seem to me that anything said by Cumbria's witnesses, as referred to in Amey's closing submissions at paragraph 514, detracted in a material way from the gist of this evidence from Amey's witnesses. In cross examination Mr Taylor explained, consistently with my analysis of the contractual documents, that since the design is contained in the specification for the individual patch type, the selection of the individual patch amounted to the specification of the design for that patch. And Mr Harrison confirmed that Capita/Cumbria would select the patch type based on the experience of the area inspector and observations, insofar as practicable from a visual inspection, of the condition and depth of the surfacing.
- 18.24 In my view, in order to establish this as a valid claim, Amey would have needed to advance these claims as compensation events, on a works instruction by works instruction basis, with appropriate supporting materials. Instead, it has attempted to circumvent all of these difficulties by advancing this claim as a global claim, well after the event, and as a misconceived response to Cumbria's defects counterclaims. In my judgment therefore this claim fails at the first hurdle on liability.
- 18.25 I shall thus refer only relatively briefly to the issues of causation and quantification.
- (2) Causation – extrapolation
- 18.26 I have already referred in the introduction to the essential issues as regards extrapolation and sampling. Since I will deal with them in much more detail later when addressing Cumbria's patching and surfacing counterclaims I do not propose to address them in detail at this part of my judgment. There are 2 separate respects in which extrapolation and sampling arise; the first is in establishing that the results of the 15 patches investigated by Amey can be regarded as representative so far as establishing breach is concerned; the second is in establishing Amey's case as to the consequences of disruption in terms of reduced output.

18.27 As to the first, Amey's approach has not been to seek to establish its case by undertaking an examination of all, or a genuinely random or representative sample of, individual patches where a generic patch type was instructed, so as to identify where the actual conditions found on site were different, leading to delay and/or disruption in completing those patches, in the same way as it contends Cumbria should have approached this case in terms of its patching and surfacing defects counterclaims. Whilst it has subsequently extended its analysis to a greater number of patches in the context of seeking to demonstrate the difference between its actual output and tender output, it has not conducted any further analysis beyond the existing 15 in terms of seeking to establish its case in relation to liability, causation and quantification of loss.

18.28 Dr van Liere confirmed in cross examination that he had not been instructed to offer an opinion on the issues of extrapolation and sampling in relation to establishing liability. It is, nonetheless, readily apparent from his evidence in relation to Cumbria's counterclaims, as well as what Amey did on his recommendations in relation to the quantification of this claim, that he would not have felt able to support any attempt to extrapolate in terms of liability from the limited and non-random, non-representative samples relied upon by Amey. I am quite satisfied that Amey's case falls down in terms of seeking to establish a connection between the alleged breaches and the consequences in terms of disruption to patching works as a whole, and that whilst Amey has criticised Cumbria – with justification as I find – for its approach to extrapolation and sampling in relation to its defects counterclaims, Amey's failure in relation to this claim is even more egregious.

18.29 So far as extrapolation and sampling in relation to quantification is concerned, it is clear that Dr van Liere accepted the criticisms made by Mr Hodgen with the result that Amey undertook a further exercise, which was the subject of further consideration by the experts. In short, the details of the further exercise are summarised in paragraph 520 of Amey's closing submissions, and I am satisfied having heard Dr van Liere cross-examined that he was well able to defend the subsequent exercise. Importantly, there was no attempt to combine the original and the subsequent samples, and the second sample could stand alone as a defensible sample in its own right. Mr Taft confirmed that there was no combining; the fact that the second sample contained some patches which also appeared in the first sample was simply a reflection of the fact that the patches investigated as part of the first sample were not excluded from the population from which the patches selected for the second sample were chosen. In short, had I needed to decide this point, I would have been satisfied that because the second sampling procedure satisfactorily addressed the deficiencies in the first, it would have been appropriate to extrapolate at least as regards quantification.

(3) Quantification

18.30 This is another item where the quantum experts were able to reach little by way of agreement. Amey's approach is to measure the disruption by comparing the average actual material delivery for disrupted patching work instructions with the weighted average material delivery for patching taken from the schedule of rates. The former, according to Amey, is 10.94 tonnes,

whereas the latter is 14.13 tonnes. The former is what Amey says was the average actual achieved output for disrupted patching works instructions; the latter is the output which Amey says each gang could have achieved when laying type 2 patches, assuming no disruption. Amey's case is that this results in an inefficiency rate of 19.64%, from which Amey calculates the financial consequences as being £2,094,076.68.

- 18.31 Mr Taft was cross-examined as to whether the 14.13 tonnes was appropriate, compared with the 12.31 tonnes originally adopted by Amey. It appears that the 14.13 tonnes was arrived at by applying a weighted approach, based on the actual number of different patch types instructed, whereas the 12.31 tonnes was arrived at by taking an equal number of different patch types. In my view the 14.13 tonnes more accurately reflects the reality of what was achieved and should be preferred. This, it appeared, was an average output, and within it there was considerable variation, so that in relation to type 3 patches the planned output was as high as 20.44 tonnes. Analysing and ascertaining the value of the claims divided into patch type rather than on an overall basis would have produced a substantial increase in the value of the claim, but Amey did not seek to amend to do so, relying instead on the claim advanced based on the overall figure.
- 18.32 Mr Taft accepted that a further analysis of the results of the second sampling exercise showed the actual output achieved to be 11.12 tonnes, rather than 10.94 tonnes. He also accepted that the quantification exercise did not seek to compare thickness laid with thickness ordered, or to make any allowance for disruption caused by other factors because, as made plain, it was simply an exercise of contrasting the planned achievable outputs and the actual output achieved, without investigating the reasons for the shortfall. Again, this made clear that Amey was advancing a global claim, but without the necessary evidential underpinning.
- 18.33 He was asked further questions about the detail of the exercise, which did not seem to me to cast any fundamental doubt upon its validity as a quantification exercise. Mr McGoldrick however had criticised the approach taken by Amey, on the basis that it was inappropriate to take the planned output from the tender allowances, when they ought to have been taken from the productivity actually achieved where the disrupting event did not occur – what is referred to as the “measured mile” approach, or at least that if this approach was to be taken it ought to have been verified by being able to demonstrate that the planned outputs had actually been achieved in some cases where the disrupting events did not occur. He was cross-examined on the basis that it would have been impossible to have set up a sample exercise in advance, because it would have been impossible to know before attending on site whether or not the specified patch thicknesses were achievable. I accept that as a good point, but it did not address Mr McGoldrick's argument that it ought to have been relatively easy, by reference to the contemporaneous records which were produced, to have conducted a cross check on a suitable sample basis. It seems to me that it would, as Mr McGoldrick said, have been a reasonably easy exercise to demonstrate this, had Amey instructed Dr van Liere and Mr Taft to work together to undertake an appropriate sampling exercise, which would have ensured that any risk of individual variations would have been picked up and catered for.

18.34 Overall, whilst Mr McGoldrick was prepared to accept that there appeared to be a significant difference between the tender planned outputs and the output actually achieved, in the absence of convincing proof that the tender planned output was realistically achievable, that was not sufficient to get Amey home on quantification. He made the point, which seems to me to be commercially astute, that on the figures this represented a 50% loss of productivity over the whole of the contract and the whole of the county which, if it had happened in circumstances where Amey genuinely believed it was due to Cumbria's breach of contract, something would surely have been said or done at the time. Although Amey suggested that no other credible explanation for the discrepancy had been identified, since I accept Mr McGoldrick's evidence that there were a number of other equally plausible explanations, I reject that argument. In the circumstances, I would not have been prepared to accept that Amey had made out its case as regards the quantification of this claim either, in that I would not have been prepared to accept the tender planned outputs as a realistic starting point for the comparison.

19. **Item 19: uplift for works carried out in specified periods**

19.1 The claim is pleaded as follows:

“Item 19, Uplift for Works carried out in Specified Periods: £359,290.84

The Council has failed to pay uplifts to Amey for work instructed to be carried out within 7 or 28 days. The Council has additionally instructed further work to a number of Work Instructions which would otherwise have been completed within 7 and/or 28 days attracting an uplift. The additional work ordered by the Council therefore prevented Amey from receiving the uplift. Amey has therefore claimed the uplift on the original scope of works.

The quantum of this claim is particularised in the quantum annexure attached at Schedule 2 hereto.

The Council has accepted this claim in principle in pre-action correspondence but claims, wrongly, that Amey has incorrectly applied the uplift and has been overpaid.”

19.2 It is common ground that the contract made provision for Cumbria to be entitled to instruct work to be undertaken either within 7 days or 28 days, with Amey to receive an enhanced payment by way of percentage uplift on that work of 4% or 1.5% respectively. As is apparent from the pleading, there are two parts to this claim. The first part, the most substantial, is a claim for £316,768.85 in relation to work instructed within specified periods, but where the uplift has not been paid. The second, the part 2 claim, is a claim for £42,552, in relation to work which Amey says it was unable to perform within the specified time period due to additional work being instructed.

19.3 It is also common ground that when Capita/Cumbria entered works instructions on Siteman, it had the option of instructing work to be undertaken within one or other of the specified periods by entering the relevant priority code, which would have the effect of automatically adding the uplift to the relevant works. It is also not in dispute that there were occasions where errors were made in entering works instructions, so that the relevant priority code was not entered correctly, with the result that the automatic uplift was not applied. It is also agreed that it was not straightforward to establish on Siteman whether or not it had actually applied

automatic uplift. Furthermore, it is agreed that Siteman did not automatically self-correct, in the sense that if the work was ordered with a priority code, but not completed within the specified timescale, the automatic uplift would still be applied, unless overridden by Capita/Cumbria.

- 19.4 In addition to Amey's claim, Cumbria asserts that on the basis of its own assessment it is entitled to a credit of £25,217, which forms its Schedule 12 counterclaim.
- 19.5 It appears that in 2009 Mr Roper carried out an audit, which revealed the inadequacies within Siteman referred to above, and as a result made certain recommendations to seek to address these problems, which appear, however, from his evidence to have been ignored not just by Amey but, as he accepted in cross examination, by Capita and Cumbria as well.
- 19.6 Mr Roper was asked to revisit this issue in order to establish whether or not Amey owed Cumbria money or Cumbria owed Amey money and, in each case, how much. He produced a further analysis, which under cross examination he accepted resulted in figures which were only estimated, produced before the close of the contract, and solely on the basis of what he could ascertain from interrogating Siteman. He also accepted that he had not revisited this analysis since. He confirmed that Mr McGoldrick had undertaken a sample test check, but no more than that.
- 19.7 When Mr Smith had been asked about this, he accepted – rightly in my view – that the facts of each individual instruction would need to be analysed in order to understand whether the priority code had correctly been applied, and whether the reason for any delay in completing the works was the responsibility of Amey or of Cumbria. He accepted that he had not undertaken an investigation of this nature and, hence, was unable to explain by reference to individual instructions why the works have been delayed.
- 19.8 Mr Taft confirmed that he had not been instructed to, nor had he, reviewed the individual claims. He also accepted that emergency and winter services works, and certain kinds of cyclic maintenance works, were excluded from the scope of the uplift. He also appeared to accept that the same was true of dayworks. In closing submissions Amey submitted that he was in error in that respect, and that it could be seen from an examination of the relevant clause (185AR(3)) and the relevant appendix that dayworks were not excluded. However in my view it is apparent from considering appendix D as a whole that there is no option to price an uplift for dayworks unlike, for example, in appendix C at page 14 and, hence, I prefer Cumbria's argument on this point. This is significant, because Mr Taft accepted that a number of the claims had been made in respect of works which were excluded, including dayworks, and that this was something which ought to have been investigated and resolved during the final account process, but had not, so far as he was aware, been done.
- 19.9 This presented a difficulty for Amey, however Mr Taft had conducted an analysis of these claims, concluding that they amounted in value to £77,877.28. Although Mr McGoldrick said that he had not had time since the analysis was produced in early April 2016 to review it, he had not done so at any time prior to the conclusion of the trial, even though in my view it was

a relatively straightforward exercise. Furthermore, Cumbria says that the claims in relation to dayworks amount in value to £44,292 (see paragraph 17 at page 281 of its closing submissions).

- 19.10 In my judgment Amey has established its entitlement to be paid in relation to the first part of the claim, where it can establish that works were instructed to be undertaken within specified periods but where the additional payment has not been paid, save for the claims made where there was no entitlement, including dayworks. In the circumstances, I am satisfied that save for these amounts, Amey is entitled to be paid in relation to its part 1 claim, in the revised net sum, if my arithmetic is correct, of £194,599.57.
- 19.11 As to the part 2 claim and the counterclaim, given the evidence of Mr Roper and Mr Smith, and given that neither of the experts had conducted an analysis of the individual items in dispute, other than some limited exercise, it seems to me that I am not in a position to make findings on each individual disputed item. In the circumstances, it seems to me that both parties have failed to establish to be balance of probabilities its respective claim either to underpayment or to overpayment, because it will be necessary in each case to ascertain why the work had overrun and, in particular, whether that was the responsibility of Amey for the responsibility of Cumbria.
- 19.12 In short, my conclusion is that Amey succeeds in its claim in the sum of £194,599.57, and Cumbria fails in its counterclaim.
- 19.13 In its list of suggested obvious errors Cumbria contended that this analysis overlooked the further deduction of £137,984.98 which arose during the course of the trial. The explanation given was that in the combined joint statement of Mr Taft and Mr McGoldrick produced during the course of the trial on 18 April 2016 Mr Taft referred at paragraphs 2 and 3 of the matters not agreed table (p.18) to a further analysis conducted by him which showed that uplifts had previously been paid by Cumbria in the sum of £137,984.98 but the works were not completed in the stated timescale. He explained that this mainly occurred at an early stage in the contract and he could not give an opinion on how this arose or whether it was understood and agreed. In paragraph 4 he made the point that this appeared to be larger than the amount withheld and counterclaimed by Cumbria. In paragraph 10 he suggested that if these uplifts of £137,984.98 should not be excluded, then some of them would fall into the part 2 claim.
- 19.14 Cumbria asserted that it followed that the amount of £137,984.98 should be deducted from Amey's part 1 claim as having, by Mr Taft's admission, been incorrectly claimed and paid, and that no part of it can be claimed under the part 2 claim which I have rejected.
- 19.15 However in my view this argument ignored the fact that the £137,984.98 was never included in the first place within the part 1 claim of £316,768.85, which was Amey's claim for the unpaid balance of these uplifts. It follows that there is no basis for deducting it from Amey's claim. There was never any formal admission by Amey that these sums were incorrectly claimed and paid, or that there should be a set off applied against its part 1 claim in relation to

this amount. That was simply a possibility canvassed by Mr Taft, which was never taken up because there was never any evidential basis for doing so. It is apparent from Mr Taft's view as expressed in the joint statement and Amey's case that there may well have been perfectly good reasons why these uplifts were claimed and agreed and paid. As was made clear in cross-examination, since neither Mr Taft nor Mr McGoldrick had investigated these items they were unable to offer an opinion on them. Since they had not been considered by Mr Roper nor deducted or counterclaimed by Cumbria, neither Mr Smith's nor Mr Roper's evidence provided any basis or justification for deducting them.

19.16 Finally, even if there was any duplication between these items and those counterclaimed by Cumbria they all fall within my determination at paragraph 19.11 above, where I have found that neither the part 2 claim nor the counterclaim succeeds because neither party has been able to demonstrate on the evidence that they were individually incorrectly rejected or incorrectly claimed and paid. In short, the loss lies where it falls.

19.17 Accordingly, I decline to accede to this invitation by Cumbria.

20. **Item 20: timebound works**

20.1 The claim is pleaded as follows:

"Item 20, Timebound Works: £2,535,970.00

The Council instructed Amey to carry out emergency works under Clause 38 of the Services Agreement. The emergency work was additional emergency patching due to winter damage in 2009/10 and 2010/11 and emergency works from flooding in November 2009. Amey will rely upon Clauses 38.1 and/or 38.3 and the definition of "emergency" within the Services Agreement.

The balance of this claim arises from the Council having instructed more time limited works than had been priced by Amey in its tender. In particular, the Council instructed an increased volume of "emergency work" with a completion date of greater than 28 days and therefore not subject to an uplift in accordance with the Contract. That extra work required Amey to subcontract larger volumes by value of Works Instructions than they had planned at tender and therefore Amey claims its loss of margin in dealing with the increased instruction of such works.

Amey therefore claims the sum of £2,535,970 in respect of this claim item."

20.2 It is apparent that the claim is in two parts; the value of part 1 (emergency works) is said to be £1,885,150 and the value of part 2 (timebound works) said to be £650,820 for years 2006 to 2009.

20.3 It is necessary, as Cumbria submits, to scrutinise this claim with some care to ascertain its precise contractual basis and justification.

20.4 As Amey says at paragraph 538 of its closing submissions, the contract provides for planned and unplanned works as well as for emergency works. Planned works and unplanned works

are referred to in the highways maintenance service specification under clauses 183AR and 184AR respectively. Planned works are to be paid for under the schedule of rates, and are to have a specified period for completion of 28 days or longer. However, as Cumbria submits, this does not mean that planned works must be ordered on a completely open-ended basis; to the contrary clause 21 of the highways special conditions requires each works instruction to have a specified finish date which, for works over £10,000 in value, should be agreed in advance.

- 20.5 As I have already said under the preceding item, specified uplifts were payable where ordered to be undertaken within 7 days or within 28 days. Additionally, works could be ordered as emergency works to be undertaken within 24 hours at dayworks rates. Anything beyond 28 days was to be paid for in accordance with the schedule of rates, irrespective of whether the works were instructed to be done within 75 days or beyond that timescale.
- 20.6 It follows, in my judgment, that Amey had no entitlement to extra payment if Cumbria ordered works instructions for works falling within the highways pricing schedule where the finish date was specified as exceeding 28 days; to the contrary Amey was obliged to undertake that work within the specified period, although it would of course have input into the specified finish date for works over £10,000 in value and could, no doubt, have invoked the dispute resolution procedure if it considered that Cumbria was ordering work in unrealistic quantities to be done within unrealistic timescales. It also follows, in my judgment, that there is no right to extra payment, other than in accordance with the specified uplifts, if very substantial quantities of work falling within the highways pricing schedules was ordered to be undertaken either within 7 days or within 28 days although again, no doubt, Amey would be entitled to invoke the dispute resolution procedure if it considered that Cumbria was ordering work in unrealistic quantities to be undertaken within these timescales.
- 20.7 The consequence, in my view, is that Amey is not entitled to claim for the increased cost of using sub-contractors to undertake work falling within the highways pricing schedules, where that work was ordered as timebound works to be undertaken within 7 days or 28 days because, as Cumbria rightly submits, the contract has its own self-contained pricing structure to reflect how such timebound works are to be instructed and the financial consequences of such instructions. This, as Cumbria submits, reflects the commercial reality behind this type of term measured contract, which is that the contractor has to include in its tender pricing an allowance to cover the inherent costs and risks inherent in accepting an obligation to resource fluctuating amounts of work, in particular covering its core labour costs if less work than anticipated is ordered, and bringing in subcontractors – with the risk of a reduced or even a negative margin – if more work than anticipated is ordered. In either case there is no contractual basis for looking to Cumbria to compensate unless, in this case, it could be demonstrated that Cumbria was not acting in good faith as regards the ordering of work, as to which there is no suggestion let alone evidence.
- 20.8 In order to escape this difficulty, Amey has sought to characterise its part 1 claim as being for payment for emergency services. However, as Cumbria submits, this is plainly incorrect on the facts, because the evidence shows that the works in question are not emergency services

properly so called as falling within the definition of such within clause 38 of the services agreement. They are defined as being “services additional to the Services” where “Services” are defined, as relevant to this issue, as the services described in the highways maintenance services specification. It follows, therefore, that emergency services must be services falling outside the schedule of rates. This makes sense, because under clause 38 Amey is not obliged to undertake these emergency services, only to use its best endeavours to do so. Furthermore, under clause 38.3 Cumbria is obliged to reimburse Amey its reasonable additional costs and expenses of providing such services, in addition to the obligation to pay for emergency works at dayworks rate in accordance with clause 185AR of the services specification.

- 20.9 Although these points were made in closing, both in writing and again orally, it did not seem to me that Amey had any answer to them, and that in my view is because there really is no sensible answer to them. It follows, in my view, that this claim fails on these contractual arguments. It is not pleaded or argued in the alternative, for example, that these claims can be advanced as claim is for breach of contract, again for the simple reason that there is no basis for regarding the relevant works instructions as amounting to breaches of contract.
- 20.10 If I had been satisfied that there was a sound contractual basis for these claims, I would have needed to consider whether or not Amey had been able to establish a link between the emergency and timebound works ordered and the need to increase its subcontractor resources. Mr Taft’s evidence was that the tender model assumed that all works would be self delivered, save for specialist subcontractors works, whereas it could be demonstrated that in fact Amey used subcontractors for its core works on a steadily increasing basis year on year. Mr McGoldrick, as I have already said in relation to item 14, noted that the extent of subcontracting was greater right from the outset than had been assumed in the tender model, which according to him was consistent with the evidence that there was a general increase in turnover from the contract year on year, in excess of the tender forecast, and even after taking into account the contractual provisions for increases in prices in accordance with the RPIx.
- 20.11 Cumbria submits that Amey has failed to establish, by any satisfactory evidence, that the only cause of this increase was Cumbria ordering timebound works instructions from the outset, in circumstances where the emergency services relied upon by Amey were ordered much later, in the context of the subsequent flooding and harsh winter conditions already referred to. I accept this submission; in my view it is incumbent upon Amey to establish by sufficient evidence that only the operative causes upon which it relies were the causes of the increase in subcontracting over the duration of the contract. In the absence of such evidence, and in the absence of evidence which seeks to assess separately the impact of these causes, over and above the general increase in subcontracting, in my judgment this claim again falls within the category of impermissible global claims.
- 20.12 As a separate point, as I have already noted under clause 38.3 Amey would be entitled to its reasonable additional costs and expenses, in addition to payment at dayworks rates, for emergency services properly so called. It is difficult to see how Amey could recover what it says was the shortfall on its expected tender margin due to the increased need for

subcontractors on the basis that this fell within the scope of “reasonable additional costs and expenses”.

20.13 Finally, as regards the quantification of the claim, I would accept that, as put to Mr McGoldrick in cross-examination, Amey has established by evidence the different margin between self delivered work and subcontracted work, both by reference to the evidence produced under item 14 and also, in this case, by reference to be worked examples. It follows that if I had been satisfied as to liability and causation, I would have awarded Amey the sum as pleaded, to which the claim is limited.

20.14 However, in the circumstances, the claim fails both on liability and causation.

21. **Item 23: efficiency savings on volumes of work**

21.1 The claim is pleaded as follows:

“Item 23, Efficiency Savings on Volumes of Work: £1,100,000

The Council has purported to withhold the sum of £1.1 million from Amey. The Council is not entitled to withhold those sums. Part 3 of Schedule 13 of the Services Agreement provides that if Amey’s annual turnover is in excess of £24 million as indexed linked, the Council is entitled to claim additional Services up to a value of 5% of the sum exceeding £24 million. Amey’s annual turnover for 2010/11 was £27,660,548.45. Amey contends that annual turnover comprises only Services detailed in the Schedule of Rates and not additional Work Instructions. The sum of £24 million as index linked equates to £32,900,000 in 2010/11 and therefore Amey’s annual turnover was below the relevant threshold for the purposes of Part 3 of Schedule 13.

In any event, the Contract clearly provides that the Council is entitled to claim additional Services but not entitled to claim the cash equivalent. In purporting to withhold the sum of £1,100,000 the Council is claiming a cash equivalent which is impermissible under the Contract.

Amey therefore claims the sum of £1,100,000.”

21.2 Cumbria’s response appears from appendix 26 to the amended defence and counterclaim. In short, it is said that not only was Cumbria entitled to deduct the amount withheld, but it is also entitled to deduct substantial further sums under parts 3 and 4 of schedule 13. In summary, it says as follows:

- (1) Parts 3 and 4 of schedule 13 contained provisions entitling Cumbria to request services free of charge in each year, the amount of which is calculated by reference to the annual turnover for the previous year.
- (2) Amey was under an obligation to provide a notice within 30 days of each year end, which set out the amount of the services which Cumbria was entitled to request free of charge.

- (3) Amey either failed to provide notices or, where it did provide notices, they wrongly stated that Cumbria was not entitled to request any services free of charge.
- (4) The true position is that Cumbria was entitled to request services free of charge to a substantial value under parts 3 and 4 and, in so far as it may have failed to make a formal request for these services to be provided within each relevant year, Amey cannot complain about that, given its failure to provide any or any accurate notices, and that Cumbria is therefore entitled to seek performance of the contract at final account stage, which does not fall foul of the prohibition against seeking a cash equivalent.

21.3 In reply, Amey contended that it provided details of the relevant annual turnover through the financial information which Cumbria had available to it, and which resulted each year in discussion and agreement of the annual accounts, so that Cumbria had no excuse for not following the contract procedure and requesting services free of charge in the relevant year. It also contended that, on a proper interpretation of the contract, only works undertaken against schedule of rates items should be included in annual turnover and, on that basis, there was no entitlement to services free of charge in any event.

21.4 So far as the figures are concerned the position, as I understand it, is as follows:

- (1) In addition to seeking repayment of the £1.1 million, Amey is also contesting the further withholding made by Cumbria of £558,890, being the amount Cumbria claimed was due to it in relation to work volumes for the year 2011/12, this therefore falling within the part 1 claim.
- (2) Mr McGoldrick has produced an updated analysis at [F/15.214] which records Cumbria's claimed entitlement under parts 3 and 4 for each of the years in question, totalling £2,786,195.42.
- (3) However, it is common ground that the valuation of the services is provisional on the resolution of the other items in dispute in this case, which insofar as they fall within the definition of annual turnover will have an impact on the value of the services which Cumbria was entitled to request free of charge.

21.5 It appears, therefore, that the following issues arise as between the parties:

- (1) The true construction of the relevant provisions. In short, if Amey is correct then Cumbria was not entitled to request any free of charge services under part 3, whereas if Cumbria is correct then it would have been entitled to do so.
- (2) Whether Cumbria can make any claim for whatever its true entitlement might be, having regard to the competing arguments about Amey's failure to give notices or correct notices, and Cumbria's failure to request free of charge services.

(3) What the relevant amounts are in either case.

(1) Construction

- 21.6 As already stated, schedule 13 contains 2 separate provisions for additional services, in parts 3 and 4 respectively. The most straightforward is part 4, efficiency savings. This entitles Cumbria to request additional services free of charge up to £250,000 (index linked – as are all other sums referred to here, without the need for me to say so each time) in each of the first 5 years, save only that if annual turnover is less than £24 million, it is reduced by 1.04% of the shortfall for the following year. Part 3, work volumes, is rather more complicated, being a form of mutual “pain/gain” clause. It provides that Cumbria can request additional services free of charge up to 5% of annual turnover above £24 million, whereas for each £1 million that annual turnover falls below £18 million Cumbria must pay 0.55% to Amey. If annual turnover is within the bracket of £18 million - £24 million then part 3 has no impact either way. (I should say that it is common ground that in no year, even on Amey’s case, did annual turnover fall below £18 million, so that the contest is either between there being no entitlement, which is Amey’s case, or some entitlement, which is Cumbria’s case.)
- 21.7 Both parts of schedule 13 states in express terms that there is no entitlement to the cash equivalent of the additional services and, also, that “Cumbria shall only be entitled to require the contractor to provide such additional services within the relevant year”.
- 21.8 Annual turnover is defined as being the “total value of the services listed in part 1 of this schedule 13” provided by Amey and invoiced to Cumbria. Part 1 is entitled “summary of pricing”. It contains 23 separate items under the overall heading of highways maintenance activities, and it also refers to: (a) ground maintenance activities; (b) landfill monitoring and leachate management; (c) inspection and maintenance of civic amenity sites; and (d) fleet management and maintenance (excluding fuel purchases for Cumbria). Amey submits that it follows that only the services itemised in part 1 are to be taken into account. Initially Amey contended that this also only included services applied for and invoiced through Siteman and, hence, excluded services other than highways services; this contention was plainly wrong and has since been abandoned.
- 21.9 Amey’s position at trial is that only those works undertaken against an individual schedule of rates item falling within the headings referred to in schedule 13 are to be taken into account. It submits that its construction of schedule 13 is consistent with the scheme of the contract as a whole, which recognised the commercial difference between work being done under schedule of rates items and work being done by way of negotiated lump sum, where the latter may include work done as discrete schemes, or work done under the change request procedure, or work done to which the compensation event procedure applies.
- 21.10 If correct, it would follow that a number of important work items would fall outside schedule 13, in particular all discrete schemes, which would include schemes with a special negotiated price even if work was priced up on the basis of a schedule of rates, for example the Barrow Street lighting contract. It would also exclude items which were not originally provided for

within the schedule of rates but for which, for convenience, specific codes were entered onto Siteman during the course of the contract, such as works to remedy a landslip, including substantial amounts paid to a subcontractor, known as May Gurney. It would also exclude large materials claims and claims for specialist subcontractors work, such as diving works.

- 21.11 It appeared that at one stage Amey also contended that it would exclude items such as all Better Highways works, because they also were not the subject of a specific schedule of rates item at the time the original contract was entered into. It also appeared that at one stage Amey was also contending that all items delivered by subcontractors were also not included, on the basis that the commercial rationale behind schedule 13 was to include only self delivered work. Amey's case appeared to be that the commercial rationale for limiting annual turnover in these respects is that it reflected the fact that it only recovered its overhead and margin at the tender rate through self delivered works falling within the schedule of rates, so that in relation to other works, where it might recover a lesser overhead and margin, they should not be included. I do not accept this submission. As Mr McGoldrick said in cross examination, it ignores the fact that overhead and margin is recovered under the preliminaries as well as under the schedule of rates. It also ignores the reality, which is that Amey is entitled to negotiate in relation to any new schedule of rates item, in relation to any discounts, in relation to any discrete scheme, and in relation to work undertaken by subcontractors as to its margin, so as to ensure that it receives what it regards as acceptable overall recovery. In my view, unless Amey stipulated at the time that its rate or price was offered on the basis that it would not be taken into account for the purposes of part 3 or 4 of schedule 13, Cumbria was entitled to assume that it would.
- 21.12 Cumbria's position, as set out in oral closing submissions, was that Amey's restrictive analysis made no commercial or other sense, since it could never have been intended by the parties that new rate items and/or discrete schemes and/or negotiated priced schemes should not have been included. In order to make good this argument, Cumbria made 2 principal submissions as to the correct construction of schedule 13.
- 21.13 The first submission was that, when considering what was included as regards highways maintenance works, the key defining phrase was the original underlined phrase, "highways maintenance activities", rather than the individual sub-headings appearing below, in the sequence in which they appear in the highways pricing schedule, beginning with preliminaries and ending with dayworks. That is because the other work types within the services agreement which also appear underlined in part 1, such as grounds maintenance activities and so on, do not also contain any separate sub-headings. Cumbria's argument is that the only reason why the individual activities under these sub-headings were separately specified was because they have separate discounts against them, reflecting the agreed discounts from the schedule of rates offered by Amey and accepted by Cumbria as part of the tender process. It is noted by Cumbria that the primary purpose of parts 1 and 2 of schedule 13 is to identify what the contract price should be in relation to the relevant services. Furthermore, it is said, if the intention was to distinguish between different types of work when ascertaining annual turnover, it is not immediately obvious why the list should include items of general application, such as preliminaries and dayworks. It follows, says Cumbria, that so long as the

works fall within the definition of highways maintenance activities they are included, whether or not they also fall within one of the individual sub- headings.

- 21.14 The second submission was that even if the works have to fall within the categories of the individual subheadings, there is no basis for restricting the relevant services to those which fall within an existing schedule of rates item. Any services, including discrete schemes or those subsequently added by a new schedule of rates item, would be included so long as they fall within the scope of those subheadings.
- 21.15 In Cumbria’s favour, in my view, is the fact that in the services agreement there is no distinction between any of the different types of highways maintenance activities, so that the distinction between schedule of rates items and discrete schemes does not appear in the services agreement, but instead appears in the highways special conditions. That would also explain why there was no need to make reference to discrete schemes as a separate sub-item, because of course there would be no discount from the schedule of rates applicable to discrete schemes and, hence, no reason to include them in schedule 13 part 1. As regards Cumbria’s second point, it would appear for example that Better Highways either falls within the same categories of highways maintenance activities as did the highways response teams, namely section J (cyclic maintenance), or within one or more of the various different kinds of routine maintenance, but that in either case it is covered.
- 21.16 In Amey’s favour, it could be argued that a straightforward reading of the words supports its argument, and there is no basis to adopt a strained interpretation. It might also be said that, by cross referring to schedule 12, that schedule adopts a more general and inclusive definition of highways maintenance services, specifically referring for example to discrete maintenance schemes.
- 21.17 However on balance I prefer Cumbria’s arguments, in summary for the following reasons:
- (1) There is no compelling reason for limiting the category of highway maintenance activities to those in the following subcategories in part 1 of schedule 13, when the only apparent purpose of including those subcategories was to identify for pricing purposes the separate discounts applicable to each in the schedule of rates. Part 3 refers to the “total value of the services listed in part 1” and, in my view, that simply means all services comprising “highways maintenance activities”. The contrary argument would involve finding that there was some sensible commercial reason for including all work done as dayworks, when that for example extended to emergency works requested to be completed within 24 hours, but excluding work done under subsequently negotiated schedule of rates items, even if very similar to existing schedule of rates items.
 - (2) Even if it was necessary for the relevant services to fall within the specific subcategories, there is no justification for importing a further requirement that they must also fall within a specific schedule of rates item, still less that they have to fall within a specific schedule of rates item existing at the time of the contract. It follows

that there is no basis in my view for excluding items such as Better Highways even if, contrary to my actual decision, I had formed the view that this was an item for which a new rate had to be established under clause 45.1.4 of the highways special conditions, because it would still fall within the category of cyclic maintenance, where it is to be found in the highways pricing schedule (page 175).

- (3) It also follows that there is no basis for not including discrete schemes falling within that broad category or those individual subcategories. Amey does not contend that there are relevant discrete schemes which would fall within the former but not the latter. It is also worth noting that the definition of discrete schemes in the highways special conditions envisages that they may be compiled from the highways pricing schedule or from a specific bill of quantities, so that it cannot be assumed that every discrete scheme will have no relationship with the existing schedule of rates items.
- (4) It also follows that there is no basis for not including items where Amey offered a discount from the price, whether built up from the existing schedule of rates or from a bespoke bill of quantities, for example the Barrow Street lighting contract.
- (5) I am satisfied that there is no basis whatsoever for excluding subcontracted work, even where undertaken against schedule of rates items. Indeed Mr Taft agreed this in paragraph 23 of the further joint statement.
- (6) As to Jubilee Bridge, this was excluded by Cumbria from its assessment. Mr McGoldrick was cross-examined on the basis that this exclusion was inconsistent with Cumbria's case. Mr McGoldrick was unable to assist because, he said, he had simply accepted this decision without considering it necessary to question it. It does appear in any event that by reference to the highways maintenance services specification clause 700 AR that the majority of the work relating to Jubilee Bridge would not fall within either the general or the individual subcategories anyway and, hence, that it was properly conceded by Cumbria.
- (7) As regards the examples of plants and subcontractor services referred to in cross examination of Mr McGoldrick, in my view insofar as those works fall within the broad definition of highways maintenance activities or, alternatively, the individual subcategories, then they are also to be taken into account. If Amey's approach had been to identify individual elements of works which were, on examination, outside the global or individual categories, for example it might have been said that genuine emergency services falling within clause 38 of the services agreement were excluded, then it would have been necessary to decide that on a case-by-case basis. I can see, for example, that it might be arguable that the claim for a "material invoice" might fall outside the scope of those categories, as might the claim for underwater diving services. However, that is not the way in which Amey has advanced its case, choosing instead to present an all or nothing argument as, indeed, did Cumbria. It follows, as was accepted during the course of oral submissions, that this was really an all or nothing argument and, on the basis that I have preferred Cumbria's arguments on the

question of construction, it follows that I should accept Cumbria's case and, in particular, the figures given in Mr McGoldrick's schedule, as to which Mr Taft was unable to offer any specific response, even though it had already been provided in a previous version in his pre-action report.

(2) Notices and requests

21.18 Amey accepts that it did not provide notices as required by part 3, specifying the total value of services in part 1 or any additional services due. Mr Smith in his first witness statement (paragraphs 294 to 298) says that this was because in practice, and at Cumbria's request, the different work areas were managed and reported separately, and monthly and annual accounts were prepared and agreed on the same basis. There is no evidence from Cumbria to the effect that it complained about the non-provision of notices complying with part 3 and, as Mr Smith says, there is no reason to think that Cumbria would have been unable to ascertain for itself the value of the relevant services in each year. Indeed, the inference from what Mr Robinson says in his first witness statement (at paragraphs 196 to 200) is that no-one at Cumbria had done anything about seeking to implement these provisions until he took over the matter on receipt of Amey's demand in February 2012 for repayment of the £1.1 million relating to Lillyhall.

21.19 It follows, in my view, that it is not open to Cumbria to seek to justify its failure, insofar as there was one, to request additional services free of charge in each relevant year by reference to Amey's failure to provide the requisite notices. Cumbria has not suggested that this was the reason why it did not do so, and it is clear that Cumbria would have been perfectly well able to have ascertained the relevant amounts itself from the information provided as part of the annual account process, and to have made the relevant request in the following year. Indeed, there would have been no need to ascertain the annual turnover before requesting the annual efficiency savings amount in each of the first 5 years anyway. Moreover, insofar as Cumbria was unable to ascertain the necessary information without a notice from Amey or, in so far as the information received from Amey stated, wrongly as it now appears, that nothing was due in relation to works volumes, Cumbria could and should have resolved that dispute by activating the dispute resolution procedure. It is apparent from the evidence as to the discussions in December 2008 in relation to Lillyhall that Cumbria was fully aware that there was a dispute about this, but chose to do nothing to seek to resolve it in accordance with the means provided by the contract at the time.

21.20 In my judgment the words of parts 3 and 4 make it plain that the requirement to order works in the relevant year, and the prohibition upon demanding cash entitlements, are mandatory and, no doubt, inserted for good commercial reasons. It follows, in my view, that it is not open to Cumbria to seek to claw back these entitlements by reference to the final account process, because that cannot enable Cumbria, or Amey for that matter, to claim or to set off amounts to which it was not entitled under the contract at that time.

21.21 Thus, I have to consider the question as to whether or not Cumbria did comply with the requirement to request additional services free of charge in the relevant year. I should say,

although these clauses are not as clearly drafted as they might be, that the reference to “additional” services cannot and does not import some requirement that they should be additional to those which Cumbria was going to order anyway. That conclusion must follow from the fact that there was never any requirement for Cumbria to order a fixed quantity of services in any event. It follows, in my view, that all that Cumbria needed to do was to make it plain that it was invoking its right in any particular year to claim additional services free of charge to whatever value it was entitled. It could not be right in my view to say that a request which was not precisely expressed in terms of amount, particularly in circumstances where there was a dispute as to what the correct entitlement might be, could not operate as a valid request for services free of charge to be provided to whatever the true value might be.

- 21.22 Amey has not disputed Mr Robinson’s evidence that he did make a request for additional services for the year 2011–12 in March 2012. It would appear from Mr McGoldrick’s schedule at paragraph 1310 of his principal report and in his Appendix B.5 at [F/15.214/10] that the correct amount on the basis of the then known figures would be £567,185.29. I am satisfied that Cumbria was entitled to have been provided with additional services to the correct amount of the annual turnover for the year 2010-11, and that Amey cannot now complain if it refused to do so, so that I am also satisfied that Cumbria was entitled to withhold that amount from the part 1 claim.
- 21.23 In my draft judgment I had incorrectly referred to the correct amount as being £102,052.65. That was entirely my error, because I had mistakenly taken the figure for the year 2011–12 whereas as the contract makes clear it is the figure derived from the turnover in the previous year which is applicable, so that the figure should be £567,185.29 as stated above. However once Cumbria had drawn this error to my attention and once I had indicated that I accepted that it was an error and should, subject to any representations by Amey to the contrary, be corrected, Amey made a further submission. This was to the effect that since the request had only been made by letter dated 28 March 2012, days before the contract was due to terminate anyway, and since I had found in paragraph 21.20 that the request had to be made in the relevant year and could not be claimed by way of cash entitlement, Cumbria could not succeed because additional work to that value could not have been provided in the remaining lifetime of the contract.
- 21.24 There are in my view two difficulties with that argument. The first is that as I have also already held in paragraph 21.21 above, Cumbria did not need to order additional services as such and all that it needed to do was to make it plain that it was invoking its right in any particular year to claim additional services free of charge to whatever value it was entitled. It follows, in my judgment, that it would not be fatal that a request made close to the end of any particular year might not necessarily relate to works already ordered and already carried out by that time. The second is that this was a point which it was always open to Amey to have identified and advanced at trial, but it did not do so. That is particularly significant since the letter in question [at JA71/289] expressly identified the schemes against which it was claiming credit then valued at £558,890. If Amey had wanted to argue that it was not possible for Cumbria to have ordered additional works to the value stated in the letter against one or more

of those schemes at that time it ought to have raised this as an issue and investigated it at trial. Having failed to do so, it is now too late to seek to raise this as an issue now.

- 21.25 The position is a little more confused as regards Lillyhall. There was cross-examination about this, in the course of which the witnesses were taken to the relevant documents. It must be the case that strictly speaking Cumbria was not entitled to request additional services free of charge in relation to Lillyhall, since that formed no part of the contract itself. Second, however, it is plain that there were discussions in 2008 and 2009 in relation to Lillyhall. Specifically, in December 2008 an agreement in principle was reached between Mr Northrop and Mr Smith for Amey and Mr John Robinson for Cumbria that Cumbria was entitled to some additional services, and that Amey was prepared to assist Cumbria by taking a noncontractual approach so as to allow this to be credited against the Lillyhall final account. There were also, however, some continuing issues to be resolved as regards allocation between the years and the rating, as to whether or not this could include a credit in advance of entitlement to additional services for the following year, and as to a salt invoice which Amey wanted to be offset. Unfortunately, it appears that no-one from Cumbria's side took it upon him or herself to finalise these matters, with the results that agreement had still not been reached by March 2009, when Cumbria was coming under pressure to pay the Lillyhall account. It is also clear that although these items were not finally resolved, nonetheless in correspondence in April 2009 Cumbria was still seeking to apply the amount it believed it was entitled to against Lillyhall, and Amey was willing to release a credit, but only to the minimum amount which it agreed was due, namely £937,000. In fact, however, Cumbria unilaterally deducted £1.1 million, being the figure it believed it was due, and although Amey protested about this, it did not seek to do anything about it until 2012. In the meantime, in September 2009, John Robinson did email Mr Forster asking if the "efficiency savings / additional works" could be "sorted out" at the same time as the change orders but, as I have already said, no progress was made in relation to the change orders or this matter either.
- 21.26 In my judgment, whilst Amey is correct to say that no final concluded agreement was reached as regards the Lillyhall deduction, nonetheless Cumbria did make it clear throughout this period that it considered that it was entitled to efficiency savings and works volumes additional services free of charge in relation to the years 2008/09 and 2009/10, and was seeking to persuade Amey to agree to allow that entitlement to be allocated to Lillyhall, which Amey was prepared in principle to agree to do. Even though in the end no agreement was reached, nonetheless it seems to me that this was a sufficient request to provide additional services free of charge in each of these years, which was made within the currency of each of those years, so that Amey was obliged to do so up to the amount which was in fact due, based on the annual turnover for those years. That, as Mr McGoldrick states in his schedule based on the then known figures, was £303,875 and £435,942.59 respectively, total £739,817.59. (In the draft judgment I had referred on the same erroneous basis as in paragraph 21.23 above to the figures from the wrong years, being £435,942.59 and £609,039.20 respectively, and have corrected this error here as well.)
- 21.27 It follows, in my view, that on the basis of those figures Cumbria was entitled to demand in total the sum of £1,307,002.88 being the total of £567,185.29, £303,875 and £435,942.59,

from Amey for the 3 years for which I am satisfied valid demands were made, which means that although Amey is not entitled to succeed on its claim for the return of the £1.1 million, it is entitled to say that the further deduction of £558,890 was too much, and that Amey is entitled to the shortfall under part 1 of its claim. It also follows that Cumbria's counterclaim must fail.

(3) Figures

21.28 I had been able to state the above figures in the draft judgment with some confidence, because in paragraph 25 of the further joint statement and again in cross examination Mr Taft accepted that he had no particular challenge to Mr McGoldrick's calculations if Cumbria succeeded in relation to its substantive arguments.

21.29 However I did also say in my draft judgment that the precise quantification of the claim and counterclaim would need to be revisited and either agreed or resolved once a final determination of the other elements of the claims and counterclaims relevant to annual turnover had been made.

21.30 In the experts' further joint statement Mr Taft invited me to make a number of revisions to the figures given by Mr McGoldrick. He said that there were a number of discrepancies between Mr McGoldrick's turnover figures and Amey's turnover figures prior to and at the time of trial, in respect of which he was awaiting clarification. He drew my attention to 3 particular discrepancies where he now considered that Mr McGoldrick's figures were incorrect, and invited me to revise them to accord with what he considered were Amey's correct figures. In response Mr McGoldrick contended that there was no basis for changing these figures given what I had said in paragraph 21.28 above. He also made it clear in the joint statement and through Mr Bowdery in submissions that he did not accept the accuracy of Mr Taft's new figures.

21.31 I agree with Cumbria that there is no basis for re-opening this matter. Amey could and should have investigated Mr McGoldrick's figures and raised its positive case at trial, but failed to do so. Having found that there was no challenge from Mr Taft to these figures at trial, it would not be appropriate to allow Amey to re-open this point after receipt of the draft judgment, and there is no obvious plainly demonstrated error. For completeness I should say that having considered the further joint statement of 28 October 2016 as regards the largest element of these disputes I am far from satisfied that Mr Taft is correct anyway about the need for an adjustment, so that it does not seem to me to be an obvious error.

21.32 Turning to the revisions necessary as a result of my judgment on the disputed items, Mr Taft had two points to make.

21.33 His first point was that he questioned whether the amounts I have held Amey entitled under items 3, 4 and 6 (red diesel and landfill tax) ought to be included, since I have found that Amey is not entitled to add LAO to these claims. However in my view there is no basis for excluding turnover simply because LAO is not added to the relevant figures and, hence, I

reject this argument. In particular the points I make above in paragraph 21.11 above about overhead and profit and paragraph 21.17(7) about Amey's failure to advance specific cases in relation to specific work items apply with equal force here.

21.34 His second point was that a deduction ought to be made for the amount in respect of which Amey has agreed to refund Cumbria in relation to the settlement of the Schedule 1 counterclaim (see below). Since this was, as I say below, a credit which Cumbria contended it ought to have received, I am satisfied that Mr Taft is right on this point so that credit should be given.

21.35 Upon receipt of the supplemented draft judgment the experts were able to agree that the result of all of the above is that Amey is entitled to succeed in its part 1 claim to the tune of £317,749.72, representing the difference between the £558,890 withheld and the amount that Cumbria was entitled to withhold on the basis of the above determinations.

22. **Item 24: account production costs**

22.1 The pleaded case is as follows:

"Item 24, Account Production Costs: £356,136.25

Amey is entitled to recover its account production costs as work carried out under the contract. Insofar as Amey is not entitled to recover these sums as money due under the Contract, Amey will claim the same as costs in these proceedings."

22.2 In its opening submissions (paragraph 465) Amey clarified that its pleaded case in its amended reply was that it was entitled to these costs up to the date of production of its final account "on the basis that Cumbria has unreasonably refused to value its works, meaning that Amey had to expend monies in proving them". It appears that these are said to be the costs of negotiating with Cumbria as regards the valuation of the change orders, together with the costs of preparing the final account.

22.3 Amey has made no further submissions as to the legal or other basis by which this sum could be awarded as a claim under the contract or as damages for breach. It is common ground that any question as to whether or not these costs could be awarded as costs in litigation is not for this judgment, although I have to say that as matters currently stand I am struggling to see how they could. In its closing submissions, Cumbria has made detailed submissions both on the principle as to whether such costs can be claimable and, if so, as to the quantification of such costs.

(1) Are these losses claimable in principle?

22.4 As regards the former, I have no doubt that there is no basis for these costs to be awarded under the contract, whether under schedule 6, the change request procedure, or under schedule 8, the dispute resolution procedure, or otherwise. Schedule 6 relates to the process for agreeing or quantifying the financial consequences of complying with a change request, which

cannot in my view include the costs incurred in substantiating what those costs will be. As regards the latter, there is no provision allowing for such costs to be recovered and, indeed, paragraph 14 provides in terms that if the dispute has to be referred to adjudication each party shall bear its own costs of that process.

22.5 Cumbria has referred me in its closing submissions to two authorities, In re Sisu Capital Fund Ltd [2005] EWHC 2321 (Ch.D - Warren J.) and Richards & Wallington (Plant Hire) Ltd v Monk [1984] Costs LR (Core) 79 (QBD - Bingham J.). Both confirm the general principle that it is not open to a party to claim as costs the non-expert costs of officeholders or employees in preparing and presenting a claim or in dealing with proceedings. These authorities are not strictly relevant to the separate question as to whether they can be claimed as monies under the contract or as damages.

22.6 However in a recent decision, handed down whilst I was preparing this judgment, Grant v Ralls [2016] EWHC 1812 (Ch), Snowden J. was asked to decide, in the context of a wrongful trading claim brought by the claimant liquidators for an order under section 214 of the Insolvency Act 1986, whether a contribution should be ordered to be made by the defendant directors to the assets of the company in respect of the amount by which the costs and expenses of the administration and liquidation of the Company had been unnecessarily increased by the continued trading after 31 August 2010. In paragraphs 17-23 he said this (as relevant):

“17. *In support of his first proposition, Mr. Boardman referred to the authorities that demonstrate that in general, a litigant cannot recover expenses which he incurs in connection with litigation other than by way of an order for costs. Such sums cannot, for example, be recovered by way of damages for breach of contract or tort. This principle was considered by Newey J in Ayrahami v Biran [2013] EWHC 1776 (Ch) at paras 294-298. The relevant part of the claim was for damages to cover “management or consultancy fees” and expenses of a director of the claimant company in investigating the alleged fraud of the defendant. Newey J considered the relevant authorities including Cockburn v Edwards (1881) 18 Ch D 449, Aerospace Publishing v Thames Water Utilities [2007] EWCA Civ 3, and Al-Rawas v Pegasus Energy [2008] EWHC 617 (QB) and concluded that such fees and expenses were not recoverable as damages.*

18. *In Cockburn v Edwards, Brett LJ stated, at page 462, “[T]he damages in an action of tort must have been incurred when the action is brought, except in some cases where they include everything up to the time of trial, and they cannot include any expenses incurred in the action itself. The law considers the extra costs which are disallowed on taxation between party and party as a luxury for which the other party ought in no case to be liable, and they cannot be allowed by way of damages”.*

19. *In Al-Rawas v Pegasus at para 24, Jack J. stated,*

“I accept that management time spent on preparing a claim for damages for breach of contract is not recoverable as damages. I also accept that it is not recoverable as costs, and so is irrecoverable. That is the law”.

20. ...

21. ...

22. *In Avrahami, Newey J distinguished the decision of David Richards J in 4 Eng Ltd v Harper [2008] EWHC 915 (Ch). David Richards J had permitted the recovery of investigatory costs in a fraud case, but as Newey J observed, “The work for which damages were awarded [in 4 Eng] had been completed 3 or 4 years before the claimant even issued proceedings. There was no question of it having been undertaken in the context of pending litigation.”*

23. *In my judgment, and for the same reason, 4 Eng provides no basis for the recovery of the Joint Liquidators’ costs by way of a contribution under section 214 in the instant case. The possibility of a claim under section 214 was mooted at the outset of the liquidation of the Company, and this was the very reason that Mr. Grant was brought in as Joint Liquidator. All of his work was done in the context of potential or pending litigation.”*

22.7 In 4 Eng v Harper the question was whether or not the claimant company was entitled to recover, as damages for fraud, in a case where it had been induced into buying the share capital of a company from the defendants, the costs of the claimant’s investigation into the fraud. These were costs which the claimant company had incurred on the basis that, being unable to afford to instruct external accountants or employ an internal accountant, it had authorised its directors to undertake the work, additional to their normal duties required of them under their service contracts, on the basis that they would be paid what the judge found was a reasonable hourly rate for that work. It was conceded by the defendants that the costs of an investigation into their fraudulent conduct was in principle a recoverable head of loss. The judge held that the claim was justified, and was substantiated by the detailed contemporaneous records maintained by the claimant as to the time spent and the work done. In relation to the issue of principle, he said this:

“40. This is an award to compensate 4 Eng for the liability incurred to Mr Shepherd and Mr Tapping. It is not an award of damages for disruption to the business through loss of management time, of the type recognised in a number of authorities recently reviewed by the Court of Appeal in Aerospace Publishing Ltd v Thames Water Utilities Ltd [2007] EWCA Civ 3. In such cases, the claimant must prove significant disruption to its business, but if it does so the court will generally infer that revenue would otherwise have been generated at least equal to the cost of employing the diverted staff for the relevant time.”

22.8 Amey is entitled to say that since it is limiting its claim to work done prior to submission of the final account this is not a claim for time spent in dealing with litigation and, hence, it is not on that basis alone irrecoverable. However, it is quite clearly management time spent in preparing claims, whether for monies claimable under the relevant provisions of the contract or for damages and, on that simple basis, is irrecoverable by application of the pithy analysis of Jack J. in the Al-Rawas case. Moreover, this is not a case where Amey can or does say that it is claiming these costs either as the costs of investigating and uncovering an antecedent wrong committed by Cumbria (as in 4 Eng) or as costs as damages for the disruption to its business caused by an antecedent wrong committed by Cumbria (as in Aerospace Engineering). It follows in my judgment that these costs are not recoverable in principle.

(2) Quantification

22.9 As regards quantification, I accept Cumbria's detailed submissions in its written closing. I am satisfied that no satisfactory detail has been provided as to the individual components of this claim which, in accordance with well-established principles, would need to be done, either by, contemporaneous documentary evidence or, at the very least, by other extremely cogent evidence. It seems to me that there has been no real attempt made to prove these costs to any acceptable standard and, moreover, in any event it would be difficult if not impossible to ascertain what costs might in principle be claimable under schedule 6, as opposed to other non-recoverable costs. There is also no attempt to explain how the mark-up on payroll costs has been arrived at.

22.10 In short, it seems to me that in so far as this is advanced as a claim under the contractual provisions, it is wholly speculative and must fail.

THE COUNTERCLAIMS

23. Schedule 1: winter services

23.1 This claim was compromised after the close of the factual evidence, on the basis that Cumbria withdrew its allegations of deceit and/or fraud, and Amey agreed to pay the principal sum claimed of £50,513 and interest in settlement of the claim.

23.2 That was a sensible settlement, because it had become clear during the course of the evidence that whilst Amey had, as Cumbria alleged, failed to give Cumbria credit when invoicing for the provision of winter services for time spent on providing similar services for various third parties, there was no evidential basis for the allegation that Amey had deliberately or recklessly deceived Cumbria either that it was providing these services for third parties or that it was not giving credit for the time spent in so doing.

23.3 In short, this was another example of the cock-up theory of life proving more credible than the conspiracy theory and, with rather more good sense and goodwill from both parties at an earlier stage this allegation, which not surprisingly provoked considerable bad feeling out of all proportion to its value, could have been resolved without the need to go to trial.

24. **Schedule 2: patching**

- 24.1 This is one of if not the most substantial of all of the claims and counterclaims made in this case. Its value as pleaded amounted to £10,509,235.32. It had reduced to £8,289,766.58 by the time Cumbria served its opening submissions, and had reduced further to £6,826,803.76 by the time Cumbria served its closing submissions. It is also a substantial claim even when compared with the value of all of patching works undertaken over the course of the contract, something in excess of £17.3 million.
- 24.2 It is divided into 4 subcategories, namely: (1) the visual defects claim; (2) the work not done claim; (3) the incorrect materials claim; and (4) the testing claim. All save the testing claim, which is by far the smallest in terms of value, rely upon extrapolation.
- 24.3 By way of general overview, Amey asserts that it is extremely unlikely that there could have been such an endemic failure of performance on its part over the entire duration of the contract, in circumstances where: (1) Cumbria employed Capita to oversee its works, and where Capita's inspectors would regularly inspect the works, both in the course of performance and also by way of final inspection before each works instruction was individually signed off; (2) there was a contractual procedure for the notification and remediation of defects, which was further refined during the course of the contract to make it more effective, and which worked, as evidenced by the schedule 7 claim; (3) there was also a contractual procedure for addressing matters such as non-remedied defects, or particular problems in particular areas at particular times with particular types of work, so that if Amey's performance was as seriously deficient as claimed one would have expected to see complaints being raised in the meetings held at the various levels required by the contract when in fact, whilst there is evidence of individual complaints being made on occasions, there is nothing more than that; (4) Amey's quality assurance systems would have identified these problems if they were as endemic as Cumbria now claim. Amey contends that the patching claim is a retrospective and notional claim, manufactured with a view to being deployed as a set off against Amey's legitimate claims, and has no basis in reality.
- 24.4 By way of general overview, it is Cumbria's case that many of the defects within the visual defects claim would not have materialised immediately, many of the work not done and incorrect materials claims could not have been identified without intrusive inspection, and Amey is at fault for failing to provide details of any testing undertaken and for failing to provide relevant quality assurance documentation which would have revealed its non-compliance earlier. It is Cumbria's case that it is not surprising in the circumstances that it was not until a full and detailed investigation was undertaken by PTS that the full extent of Amey's breaches became known to it.
- 24.5 As regards these general observations, in summary my view is as follows:
- (1) Amey is correct to say that the picture as revealed by the contemporaneous correspondence and documentation is not consistent with Cumbria's case as to

endemic defective and non-performance of its patching works. Whilst I accept that not all defects would necessarily have been picked up at the time, if Amey's work had been as bad as claimed it would have been the subject of regular and repeated complaint in correspondence and in meetings. Instead, the picture is far more patchy, being one of limited matters of complaint in certain areas and at certain times. Indeed, it is noteworthy that whilst Cumbria chose to remove the street lighting works from the contract in 2010 due to its concerns about Amey's performance, it never attempted to do the same thing as regards patching.

- (2) Amey is also correct to say that the likelihood is that the majority of visible defects, have they been present and as serious as Cumbria contends, would have been present upon completion and therefore identified by the area inspectors and either resolved at local level without the need for escalation or if not escalated and included on the defects sheets which form the subject matter of the schedule 7 claim.
- (3) Since I am satisfied that Amey was not contractually obliged to undertake core testing of patching works, I am satisfied that Cumbria cannot complain about the non-provision of core test results. Although Cumbria says that Amey refused to engage with its suggestion, made in 2011, that there should be a joint coring exercise, in the circumstances prevailing at that time I am not surprised by, and do not criticise Amey for, its refusal to do so.
- (4) As I have already stated, I do not consider that as regards patching Amey was required to provide the level of testing or quality assurance documentation during the course of the contract or subsequently as part of its contractual obligations as contended for by Cumbria.
- (5) Cumbria does, however, make a good point when it refers to the absence of evidence that Amey did fulfil its quality assurance obligations in a thorough and effective manner. The clear impression I received from Mr Preston's evidence was that Amey's quality assurance system was more a matter of paper production than something which was embedded into the culture of the operatives undertaking the patching and surfacing works. As I have already said, I refused to accede to Amey's late application to rely on its belatedly disclosed contract compliance documentation. Whilst it would be wrong for me to speculate on what may or may not have been revealed by that documentation had it been disclosed at the right time, for present purposes I must proceed on the basis that Amey has not been able to demonstrate that its quality assurance procedures involved extensive site auditing which, in turn, demonstrated an absence of the defects of which Cumbria now complains.

24.6 With those general observations in mind, I address the individual claims in turn.

25 **(1) Visual defects**

(a) **Introduction**

- 25.1 The case, as pleaded in the amended schedule 2 to the counterclaim, is for damages for breach of contractual warranty to patch in accordance with the contract standard and with good industry practice. It is not pleaded as a claim under the defects correction provisions in clauses 32 – 34 of the highways special conditions, not surprisingly because they are not said to be defects notified within the defects notification period, unlike the schedule 7 claims. I note, however, that in its opening submissions Cumbria appeared to argue (paragraph 807 and following) that its claim for reinstatement damages for visual defects is to be assessed under clause 32.1. I am satisfied for the reasons given above when considering these provisions (see paragraph 2.27) that it is not open to Cumbria to make its claim on this basis, although Cumbria is entitled, as it has done, to advance a claim for damages for breach under the general law.
- 25.2 As pleaded in paragraph 32 of schedule 2, it is said that 648 patches were assessed by PTS. Schedules A1 – A4, attached to schedule 2, contain a list of the patches where it is said there are visual defects based on PTS inspections and core testing. The individual schedules reflect the patch types and sizes into which Cumbria, for reasons relating to the approach it takes to the quantification of loss, has subdivided the patches, namely type 2 below 5 m² and above 5 m² respectively, and type 3 below and above 5 m² respectively. In accordance with the format of the PTS visual inspection sheets, there are up to 6 separate potential defect types, the presence or absence of which is recorded, together with written observations, photographic references, and the remedial works contended for. There are a total of 328 patches in these 4 schedules.
- 25.3 The breaches complained of include: (1) a failure to provide a good vertical seal between the patch and the surrounding road, and in particular to produce a proper uniform straight line vertical edge or properly to apply edge sealant between the patch and the surrounding road; (2) a failure to provide a good horizontal seal between the patch and the base and in particular a failure to remove debris before properly applying a tack coat; (3) a failure to achieve proper compaction of the patch by reducing the level of air voids to the contract standard.
- 25.4 The results of these and other breaches are said to involve: (1) edge deterioration, due to the breaches in relation to the application of edge sealant and in relation to compaction, thus reducing the durability of the patches which therefore require replacement earlier than otherwise would have been expected; (2) fretting, due to the breaches in relation to compaction and/or laying the materials at too low a temperature, with the same results as regards durability; (3) delamination, due to the breaches in relation to the application of the tack coat, with the same results as regards durability; (4) deformation, due to the breaches in relation to compaction, due to insufficiently stiff binder and/or laying the materials at too low a temperature, with a need for replacement if resulting in cracking or a safety hazard. In general terms, the remedial works contended for are either full replacement or a limited repair, usually in the form of an inlaid crack repair of an affected joint.
- 25.5 As I have already said, this is a claim where extrapolation is relied upon. The quantification of remedial costs is pleaded on the basis of taking an average area of patch within each of the 4

patch types, and then applying a replacement or a repair cost to that area by reference to the rates of the framework contractors employed after termination of the Amey contract. These remedial costs are then applied by straight line extrapolation from the defective patches as a percentage of the total patches sampled to the number of assumed defective patch areas as a percentage of the total patches laid by Amey. The claim thus produced is then discounted to give credit for the value already received from the patches, by reference to what is pleaded to be an 8 year service life.

- 25.6 In closing submissions, Cumbria contended that there were 237 defective patches from a sample of 583, compared to the original pleaded figure of 328 patches said to be defective. I was asked by Cumbria (paragraph 168) to “review the evidence and decide liability and the scope of remedial work for each patch claim”. In order to assist me in so doing, Cumbria produced, by way of appendix to its closing, a table running to 218 pages, containing Cumbria’s summary of – and hyperlinked trial bundle references to – the applicable PTS inspection sheet and photographs, and to Professor Knapton’s opinion as expressed in the appendix to his supplemental report. There is no separate column in this schedule which identifies the amount claimed, although there is a hyperlink to the appendix to the most recent joint statement of Mr Taft and Mr Dale, which sets out their agreed “figures as figures” on the basis of the various permutations of the quantification of the claim.
- 25.7 There is also a column headed “a Scott schedule defence?”, which contains no entries because – as is common ground – Amey did not plead a detailed responsive schedule to Cumbria’s schedules A1 – A4. Cumbria’s position appears to be that in the circumstances I need not trouble myself with considering anything which Amey may have said in its evidence or points made in cross examination or made in its submissions but, instead, should simply accept Cumbria’s case in relation to defects, breach and remedial works: see paragraphs 169 – 171 closing submissions. In my judgment this submission is completely misconceived. The reliance placed on the absence of a responsive schedule ignores the fact that Cumbria never sought, nor was there ever made, an order which required Amey to do so. Instead, as Amey submitted, the approach taken in the directions actually made was that the experts should address these defects by way of joint discussions and statement and by way of subsequent separate report in due course in the – as now transpires, misconceived – belief that much would be common ground as between the experts so that there was no need for a further round of what might well be wholly unnecessary detailed pleading by way of schedules prior to that process beginning.
- 25.8 One practical difficulty caused by Cumbria’s approach is that the appendix produced by Cumbria contains no reference, hyperlinked or otherwise, to Mr Griffiths opinion in relation to each patch, as set out in the appendix to his principal report. It is thus not immediately easy to see what Amey’s case, as advanced through its expert, is in relation to the individual defects when reading the appendix to the closing submissions. The other difficulty is that the appendix does not contain all of the references to the oral evidence given in relation to each patch. For example, visual defects claim number 19 was the subject of cross-examination of Professor Knapton, but there is no reference to the evidence given by him in the appendix, whether hyperlinked by reference to the transcripts or otherwise.

- 25.9 The position, therefore, is that Cumbria's approach requires me to work my way through 237 individual patches, hyperlinking to the relevant parts of its case and its expert evidence, cross referring that to the relevant observations of Mr Griffiths, and cross referring to the transcripts of the oral evidence of the expert witnesses where they gave evidence about individual patches, so as to proceed to reach a decision in relation to the question of breach and, presumably, scope of remedial works and quantification of repair costs for each individual item.
- 25.10 In my judgment that is not an approach which I must, or indeed should, take up at this point. As I have already said, the pleaded case is solely for damages on the basis of extrapolation; there is no pleaded alternative claim for non-extrapolated damages, and I would not have allowed one even if an application to do so had been made. I accept that in order to consider the extrapolated claim it is necessary for me to look at some of the individual allegations, because if it became apparent that Cumbria's case was extremely strong in relation to defects, in relation to causation, in relation to remedial works and in relation to cost of remedial works, then that might be a relevant factor in arriving at my overall decision on the extrapolated claim. I also acknowledge that if I accepted Cumbria's case in relation to extrapolation, there would appear to be no alternative to accepting Cumbria's invitation, in order to reach an assessment of the value of the extrapolated claim. It is not, however, necessary for me to determine the issues relating to all 237 of the individual patches in order to reach a conclusion on the extrapolated claim and, if Cumbria fails to persuade me in relation to extrapolation, then there is no need to do so at all.
- 25.11 In my judgment the appropriate course is to consider those patches which have been put to the paving experts in the course of their evidence. I am in a much better position to arrive at what I consider will be a fair conclusion as regards those on which the experts' views have been tested, and I can reasonably assume that each side has chosen at least some of its "best" patches to put to the other side's expert in cross-examination. As I said in paragraph 1.16 above, this is not a question of personal disinclination, but of sensible judgment preparation time management. Furthermore, even if Cumbria successfully appealed my decision on extrapolation, and I was subsequently required to determine all of these individual defects, I would be in no worse a position than now to determine these individual claims in respect of which no live evidence had been heard anyway.
- 25.12 Before I do so, I should make a number of general observations as regards the strengths and weaknesses of the arguments advanced by the parties which may be said to be recurrent themes in the case.

(b) **General observations**

- 25.13 First, both experts have been placed in difficulties in this case because Cumbria failed to do what it should have realised it would need to do once it decided to advance this claim, namely to have properly instructed Mr O'Farrell of PTS or Professor Walsh or some other expert to inspect the patches inspected by PTS and produce a structured report addressing all relevant

matters, including the presence of any failures, the cause of those failures, the question as to whether or not those failures amounted to a breach of Amey's obligations as at the date of completion of the patch, and if so which, and the question as to the nature and extent and justification for any remedial works. Instead, PTS was instructed only to address the first question and none of the remaining questions. There was no record, let alone an assessment, of the matters which Mr Griffiths considered should have been considered (paragraph 9.18 of his principal report at page 69). The cores which were subsequently taken did not extend the full depth of the patch and into the foundation. There was no consideration as to the need for whether any repair or replacement was justified based on the contractual standards or upon Cumbria's safety repair policy or both. The consequence of these failings was that Professor Knapton, who was instructed late and did not have or take an opportunity to inspect any of the patches prior to producing his report, was placed in real difficulties when it came to addressing these matters, as was Mr Griffiths, albeit he was instructed earlier and had taken the opportunity to inspect at least some of the patches prior to producing his report.

- 25.14 The experts were also placed in difficulties due to the failure by PTS in a large number of cases to produce drawings of the patch and its surrounding area, as they were expected to do, or otherwise to provide sufficient information whether from the photographs they took or from their commentary for it to be absolutely clear which patch they had identified as being the patch installed by Amey and why, in so far as there was any doubt, and for all of the defects identified by them to be clearly seen and measured where necessary and for their extent and significance to be assessed.
- 25.15 In the circumstances my starting point is that if, having considered the evidence, there is room for genuine doubt as to what a proper examination by a properly instructed expert would have revealed, had that expert inspected the patch at the time of the PTS survey, then Amey should have the benefit of that doubt. That, I accept, should not necessarily be the case if I was satisfied that Amey should have been able to have produced some contemporaneous documents which might have shed more light on the situation. However, since I have found that Amey was under no obligation to core test these patches, Cumbria cannot raise this as an argument, and Cumbria has not identified other specific contemporaneous documentation in relation to patching which it says that Amey could and should have provided and which would have been relevant to these claims.
- 25.16 As regards edge deterioration, I accept Mr Griffiths' evidence, consistent with Road Note 42 upon which Professor Knapton places reliance, that it is not possible to create a completely monolithic structure, all joints being at least a potential source of weakness. I also accept Mr Griffiths' evidence that it is important in such circumstances to consider the condition of the surrounding road surface. As Mr Griffiths said, it is inherent in the use of patches, especially in the case of non-engineered roads, subject to no more than adequate at best maintenance over many years, that they are no more than a basic fix, especially for roads which may be generally failing but in respect of which there is no budget for a full resurfacing operation, so that the decision is made to just patch repair the worst parts, with a view to preventing the spread of potholes or delamination or the like. It follows, said Mr Griffiths, and I accept, that it cannot be assumed that a good bond will necessarily be obtained if the patch needs to be

bonded with a poor quality section of existing pavement. In contrast, in his report and in cross-examination, Professor Knapton was insistent that if the existing road was noted as having been in a poor condition around the patch, it would not have been in that state at the time, otherwise it would have been included in the area of road to be patch repaired, and it followed that it must be subsequent deterioration due to an insufficient bond being obtained, causing water penetration and the subsequent damage. In cross examination however Professor Knapton was taken to one example where there was an area of failed road around a patch in good condition, which failure must have post dated the patch if one assumes, consistent with this theory, that the failed road would not have been present at the time the original patch was specified, but where equally there was no basis for suggesting that it was a defect in the patch which had caused the surrounding road to fall into disrepair. In his supplemental report (page 95) Professor Knapton seemed to be suggesting that previous poor patching by Amey had caused surrounding deterioration and, hence, a need for further patches in those surrounding areas, which seemed to me to be complete speculation.

- 25.17 I am satisfied that whilst there may be some cases where Professor Knapton's explanation is correct, there will have been many more cases where Capita only instructed patches to be laid over the worst areas, leaving adjacent areas in a poor, but not as bad, state, and I am also satisfied that this will have led to problems with bonding, due to the poor condition of the adjacent road as opposed to any failings on Amey's part as regards the application of edge sealant or inadequate workmanship. In my view it is not sufficient for Cumbria to say that the presence of edge deterioration is sufficient to demonstrate on the balance of probabilities that it was due to defective work by Amey.
- 25.18 A common criticism of Amey's patching works was that the edges were irregular or "ragged". I accept that this is a breach of the contract requirements, and I also accept that it is aesthetically displeasing, but the real question is whether or not it justifies, in itself, remedial works. I am not satisfied that the presence of an irregular edge will, more likely than not, result in damage such as edge deterioration and, hence, that it is of structural significance in itself. As long as the edge is not showing evidence of actual or likely future failure, especially where the condition of the surrounding road is generally poor, it is difficult to see why any sensible highways authority would choose to undertake an isolated repair of that edge. Furthermore, it is obvious that if there were ragged edges, that would have been readily apparent on inspection. By definition, if they were inspected then the area inspector at the time was satisfied that there was no need to repair them. In the circumstances, if Capita/Cumbria had chosen at the time not to implement the contract defects remediation procedure, it is difficult to see why Cumbria should now be entitled to make a claim on the basis of repairing this irregular edge at Amey's expense if it is no more than an aesthetic defect, particularly in the context of Cumbria's case that patches have only an 8 year service life.
- 25.19 I should also refer to overbanding. At one point in his cross-examination Mr Knapton suggested that laying overbanding over patch edges was required as a matter of custom and practice, even though not required by the contract. In the end, however, he rather rowed back

from this, and accepted that it was not mandatory, so that a failure to do so would not place Amey in breach of contract.

- 25.20 In relation to fretting, there ought to be no dispute as to whether fretting was present on inspection, although there might be room for some debate as to its extent and severity, whereas the real argument was whether the presence of fretting alone was indicative of a breach by Amey. I accept and prefer Mr Griffiths opinion on this point, which is that there are a number of potential causes other than inadequate compaction, and that Cumbria would need to go further and explain in an individual case why the presence of fretting indicates, on the balance of probabilities, breach by Amey. I do not accept Professor Knapton's evidence that fretting cannot arise as a result of ageing, wear and tear or exposure to particularly heavy trafficking, and that for it to occur there must have been some initial defect in the work.
- 25.21 In relation to deformation, again I accept Mr Griffiths' opinion that there are potential different causes of deformation, some of which may be due to breach by the contractor whereas others, such as a problem with the foundation, may not. The same is true, in my view, of delamination. In both cases it is necessary for Cumbria to go further than simply pointing to the presence of deformation or delamination and inviting the court to infer, without more, that it is due to Amey's breach.
- 25.22 Mr Griffiths was asked in cross-examination about when, in his view, it would be justified to undertake remedial works. In his answer he referred to what he understood Cumbria's procedure to be, namely to undertake regular safety inspections to identify defects in its roads, and only if a defect was found to compromise road safety would the defect go into the network maintenance schedule for appropriate remedial works to be undertaken. I accept that answer as consistent with the documents to which he referred in his principal report. It is also consistent with Mr Robinson's evidence that Cumbria is unable to correlate the defective patches the subject of this claim and any remedial works undertaken since the end of the Amey contract because remedial works are undertaken solely by reference to Cumbria's highways maintenance programme. When Mr Griffiths inspected 14 patches condemned by PTS he found that 8 had been surface dressed since. In his schedule E Mr Griffiths had recorded the number of patches which subsequent site inspections by himself or by Amey had showed had been surface dressed since the date of PTS inspection. It appears that there are a total of 68: 19 in schedule A1; 21 in schedule 8 to; 12 in schedule A3; and 16 in schedule A4. That is a significant proportion of the total of 328 referred to in his report. There is no evidence or basis for concluding that any defective patches or edges would have been replaced or repaired before surface dressing was applied in relation to all or a significant proportion of those patches, or that any underlying defect has manifested itself even after surface dressing has been applied. In the circumstances, it is quite clear in my view that there is no real prospect of Cumbria incurring any actual remedial costs in relation to these patches within their service life. What this also clearly shows in my view is that Cumbria, not surprisingly, adopts a policy of surface dressing for poor quality areas of road, where practicable, instead of undertaking isolated remedial patching.

- 25.23 I have already referred to the service life discount allowed by Cumbria. It is a substantial discount; in paragraph 166 of its written closing submissions (page 367) Cumbria indicated that it amounted to £5,678,125.42 to be deducted from the claim of £9,322,405.21, being its valuation of the claim pre-application of discount. It was, I have no doubt, for that reason that an application was made by Cumbria at the pre-trial review for permission to re-amend its statement of case to withdraw that allowance. I refused Cumbria permission to do so, for reasons which I gave at the time, but in summary were that it was far too late to make what was a very substantial amendment, not only substantial in terms of its monetary value, but also because it would have had the effect of making it necessary to consider claims for defects in the works undertaken in the early years of the contract which would not have needed to be investigated on the existing pleaded case.
- 25.24 Nonetheless, in its opening written submissions Cumbria sought to contend (paragraphs 817 – 828) that notwithstanding that refusal I should nonetheless consider the question of betterment as a question of law which required determination whether pleaded or not. Cumbria invited me to conclude either that as a matter of law betterment is not applicable in this case or, if it is, the way in which Cumbria has applied it in this case should be rejected as not in accordance with the law. It is, I am quite satisfied, wholly inappropriate for me to allow Cumbria to depart from its pleaded case in this way; there is no obligation upon a court to decide whether or not a concession willingly made by a party in its pleaded case is right or wrong as a matter of law, especially when the party making the concession is inviting the court to do so with a view to seeking to avoid the effect of that concession in circumstances where it has been refused permission to amend its statement of case to do so.
- 25.25 It is, however, worth considering the question of the proper approach to damages in relation to Cumbria’s visual defects claim, because it is relevant above and beyond the narrow question of the service life discount. In its opening submissions Cumbria referred me to a number of authorities but, for present purposes, I need refer only to the judgment of Rix LJ in Voaden v Champion 2002 EWCA Civ 89. The facts of that case are not material. Having referred to the relevant authorities including, most importantly, the decision of the House of Lords in Ruxley Electronics and Construction Ltd v. Forsyth [1996] AC 344 he drew the following conclusions:

“83. *In the light of these authorities and the principles discussed in them, I would draw the following conclusions. (1) Unless the parties are taken to have agreed otherwise, it is difficult to see that in the normal case of damage to or destruction of a chattel, it should make any difference whether the loss is caused by breach of contract or of tortious duty. The question remains, as Lord Blackburn said in Livingstone v. Rawyards Coal Co (1880) 5 App Cas 25 at 39, to find*

“that sum of money which will put the party who has been injured, or has suffered, in the same position as he would have been in if he had not sustained the wrong for which he is now getting his compensation or reparation.”

84. *As Lord Lloyd emphasised in Ruxley v. Forsyth at 366B, after citing a similar statement of principle from Viscount Haldane LC in Westinghouse Electric and Manufacturing Co Ltd v. Underground Electric Railways Co of London Ltd [1912] AC 673 at 689*

“Note that Lord Haldane does not say that the plaintiff is always to be placed in the same situation physically as if the contract had been performed, but in as good a position financially, so far as money can do it. This necessarily involves measuring the pecuniary loss which the plaintiff has in fact sustained.”

85. *(2) It follows that cases where a claimant recovers more than he has lost, as will happen where betterment occurs without a new for old deduction, ought as a matter of principle to be exceptional. Recognised examples of such exceptions, again whether in contract or in tort does not seem to matter, are cases of the repair of chattels (The Gazelle, Bacon v. Cooper) and also the destruction of buildings provided that a replacement building is necessary to prevent the collapse of a business or loss of profits (Harbutt's Plasticine, Dominion Mosaics v. Trafalgar Trucking). It may well be, therefore, that the distinction between repair and total loss relied on by the judge is not definitive, and that the exceptions are to be explained on a more fact sensitive basis. A factor mentioned in some of these exceptional authorities is that otherwise the claimant is exposed to an inconvenience or burden or the expenditure of money from which the law ought to protect him. I suspect, however, that the true principle is that in the relevant cases the betterment has conferred no corresponding advantage on the claimant. Take the ordinary case of the repair of some part of a machine. Where only a new part can be fitted or is available, the betterment is likely to be purely nominal: for unless it can be posited that the machine will outlast the life left in the damaged part just before it was damaged, the betterment gives the claimant no advantage; and in most cases any such benefit is likely to be entirely speculative. So in the case of replacement buildings: the building may be new, but buildings are such potentially long-lived objects that the mere newness of a building may be entirely by the way. Of much more importance to a business owner is whether the replacement answers the needs of his business. Even where the replacement is of a moderately bigger size (Dominion Mosaics v. Trafalgar Trucking), in the absence of any reason for thinking that the bigger size is of direct benefit to the claimant, he has merely mitigated as best he can. If, however, it were to be shown that the bigger size (or some other aspect of betterment) were of real pecuniary advantage to the claimant, as where, for instance, he was able to sublet the 20% extra floor space he had obtained in his replacement building, I do not see why that should not have to be taken into account. It is after all a basic principle that where mitigation has brought measurable benefits to a claimant, he must give credit for them: see British Westinghouse v. Underground Electric Railways, where defective machines were replaced by new machines of superior efficiency.*

86. (3) *Where in the case of a second-hand chattel there is no market to replace what has been lost, a problem of betterment will often arise because there is no automatic market mechanism for measuring the loss. In physical terms, the only way to replace the loss is to buy new. But the basic principle is not physically to replace what the claimant has lost but to replace it financially, to make him whole in financial terms. If he is given the price of a new chattel, he will be made more than whole. (The problem of the wrongly constructed swimming-pool is different, but analogous: the claimant is not entitled to specific performance, but to financial compensation for what he has lost.) The authorities suggest that prima facie such a case is not within the range of exceptional situations where betterment is ignored. On the contrary, the proper approach appears to be to make a fact specific review of what the claimant has lost and then attempt to put a financial figure on it as best one can: The Harmonides approved in The Liesbosch; Sealace Shipping v. Oceanvoice approved in Ruxley v. Forsyth.*
87. (4) *It is in any event an error to think in terms of the correct answer lying only at the extremes, such as, at one end, the cost of replacement from new. Several of the cases, even those which have on appeal been driven by the way in which the case has been argued to select the answer from a limited choice, have commented on this factor: The Harmonides, Dominion Mosaics v. Trafalgar Trucking and Ruxley v. Forsyth itself.*
88. (5) *In such circumstances the test of reasonableness has an important role to play. This role goes further than the proposition that replacement from new has to be absurd for it to be rejected as the measure of loss. The loss has to be measured, and where what is lost is old and second-hand and coming towards the end of its life, it is not prima facie to be measured by the cost of a brand-new chattel, even where the market cannot supply a closer replica of what has been lost; and where such a measure would not be a reasonable assessment of what has been lost, it should not be used. As May J said in Taylor v. Hepworths, cited with approval in Dominion Mosaics v. Trafalgar Trucking and (at 356G and 369G) in Ruxley v. Forsyth, damages ought to be reasonable as between claimant and defendant. I do not see why in the realm above all of remedies the common law cannot mould its principles flexibly to the needs of the situation, and as so often the test of reasonableness lies to hand as a useful tool. It may also be possible to speak in terms of proportionality, a closely analogous but not necessarily identical test: see Lord Lloyd in Ruxley v. Forsyth at 367B and 369H.”*
- 25.26 In this case, the evidence shows that at the time defects complained of were identified and reported on by PTS, it was not asked to, nor did it, express any opinion as to whether or not the condition of each patch was such that it represented a danger to road users or, otherwise, whether there was a real need for replacement or remedial works to be undertaken and, if so, what those works would be. Professor Walsh was not asked to do so either and nor was a highways inspector, who would have been the relevant decision-maker within Cumbria if this case had involved a potential claim, asked to do so.

- 25.27 It is apparent, in my view, that had such a question been asked there would have been a range of possible alternatives, from: (1) immediate replacement or repair in full on the basis that the condition of the patch represented a current danger; to (2) replacement or repair in full within a specified period on the basis that although there was no current danger, there was a real risk of deterioration leading to a real risk of danger in the short to medium term; to (3) some lesser scheme of replacement or repair, either immediately or within a specified period, to “tide” the patch over until the next planned programme of works in that area, which might involve either full re-surfacing, patching or surface dressing; or finally to (4) no remedial works necessary, on the basis that the patch would “do” until the next planned programme of works.
- 25.28 In fact, what happened here was that the process of deciding which remedial works were appropriate was delegated to others, in circumstances where Cumbria produced little or no evidence either as to who was involved (and thus their skills or experience in assessing such matters) or as to what they did and how they did it. Mr O’Farrell referred to this in his witness statement, saying that he had a lengthy 2-day meeting with David Harrison and someone called Matt Scott (who appears to have been another ex-Capita inspector, not called as a witness by Cumbria) where they made these decisions, albeit with some input from Mr O’Farrell.
- 25.29 However when Mr Harrison was asked about this, he appeared to have little or any recollection of this having happened, somewhat surprisingly in the circumstances. There is no other evidence, documentary or otherwise, as to who was involved in this process, and on what basis. In paragraph 249 of his first witness statement Mr Robinson said that the decisions were taken, as they had to be, by Cumbria’s “team”, although he did not specify who he meant by that. It appears to me that it is a loose shorthand for the team involved in driving forward the claims process, and which included those employees of Cumbria particularly involved in the claims process, such as Mr Robinson and Mr Roper, as well as – when required – people such as Mr O’Farrell, Cumbria’s external claims consultants, JR Knowles, internal/external lawyers, experts and people such as Mr Harrison.
- 25.30 There is no evidence that Cumbria took the decision to delegate these decisions to Mr Harrison and/or Mr Scott on the basis that they were instructed to approach it as they would any other highways maintenance safety inspection decision. In any event, in my view it is wholly unsatisfactory to seek to rely upon Mr Harrison as some form of quasi expert, either in relation to whether or not work was defective or as to what remedial work was reasonably necessary. First, he gives no evidence at all as to his involvement in this aspect of the claim; second, as I have said, in my view he was an unreliable and a partisan witness. Cumbria cannot rescue this by seeking to rely upon the involvement of Mr O’Farrell, because Mr O’Farrell and Mr Robinson were clear that he had only limited involvement. Even if that had not been the case, in the absence of any evidence as to how this task was approached and what criteria was adopted, it is impossible to place any real reliance upon its conclusions.

- 25.31 In reality, it seems to me, this was a notional desktop exercise undertaken without consideration of the real life factors which any reasonably competent highways authority would consider when making the decision whether and if so how to spend its scarce resources. Instead, in my view, it was an exercise primarily driven with a view to maximising this claim.
- 25.32 I reached the same conclusions as regards the ascertainment of the remedial costs. This appears to have been another notional desktop exercise undertaken by JR Knowles with, I am satisfied for reasons I give when considering the detail of the individual claims, no consideration as to how it could be done most cost effectively, whether by undertaking the work in-house, or undertaking the work in batches so as to achieve economies of scale, or in terms of what traffic management was realistically required given the location of the patch and the nature and extent of the remedial works required.
- 25.33 Professor Knapton has not been asked to consider these questions. His approach is limited to considering whether or not replacement or repair is a reasonable response to the defects complained of, on the basis that it is a breach of contract which would justify replacement or repair in the abstract, as opposed to a highways authority operating in the real world, having to make decisions as between competing priorities. He has not been asked to consider, particularly in the context of the service life of each patch, what if any remedial works would be a reasonable and proportionate response to the problem at the stage over the period 2012 – 2014 when the defects complained of was first observed. Again, in my view, his involvement is a notional desktop exercise, rather than a real life exercise.
- 25.34 As I have already said, there is no evidence from Cumbria as to whether or not remedial works have been undertaken in relation to any of the individual patches, and if so what works have been undertaken, when, and at what cost. There is no indication that any attempt has been made by Cumbria to interrogate its own highways maintenance records to ascertain whether any, and if so what, works have been undertaken in relation to individual patches. All that is known is that in a significant number of cases the subsequent visits by Amey or Mr Griffiths have revealed that the patches have been surface dressed over. There is no evidence that this has not provided a satisfactory solution for the remaining lifetime of any individual patch, nor is there any evidence that the cost of this surface dressing has, whether in an individual case or overall, increased due to the presence of these defects.
- 24.35 In short, the claim for damages is in my view a wholly theoretical exercise with no basis in reality. This is not a case where Amey is criticising decisions taken by Cumbria at the time about what remedial works were reasonably necessary, in circumstances where those works were then carried out and the claim is for actual costs incurred. In such a case the court would not unnaturally be willing to give Cumbria as the innocent victim of a breach the benefit of any reasonable doubt. Here, so such work has been carried out. There has been some suggestion that Cumbria has waited until the outcome of this case is known before choosing to spend any damages it might be awarded on undertaking these repairs. Insofar as it is seriously suggested by Cumbria that this is a consciously taken policy, and that it would undertake whatever repairs the court considered were justified, I reject it. There is no

evidential basis for such an argument. Indeed, the idea that Cumbria could even undertake this exercise, even if it wished to do so, is completely undermined by the fact that it is seeking damages on a theoretical extrapolated basis, in circumstances where it would not even know where to begin to ascertain patches which were defective by reason of what it says was Amey's breach, other than those the subject of the sampling exercise.

25.36 So far as the service life is concerned, although Cumbria has given credit on the basis of an 8 year service life, that is not accepted by Amey. Professor Knapton supports the 8 year service life by reference (paragraph 4.59 of his principal report) to a document entitled "Service Life of Asphalt Materials for Asset Management Purposes" produced by the Mineral Products Association [MPA] & Association of Directors of Environment, Economy, Planning and Transport [ADEPT] in April 2015. He accepts that it postdates the Contract, but says that it nonetheless sets out received highways engineering wisdom which has been correct for many years, being the combined opinions of a group of eminent and experienced professionals in the field of highway repair methods. It refers to asphalt concrete as having a "material surface life in designed roads" of 8 years, but an equivalent life in "evolved roads" of 6 years. It would appear, therefore, that even if this publication is accepted as authoritative, and even assuming areas of patching can be equated with areas of surfacing, the service life can be said to be no more than 6 years in relation to the typical evolved roads in rural Cumbria with which many of these patches are associated.

25.37 Mr Griffiths considered this question in some detail in his principal report and concluded (paragraph 14.26) that the service life would be at most 6 years, assuming that the adjacent road was in good repair and so on (paragraph 14.25), but otherwise it would all depend on the individual circumstances of the patch, and that he would not expect patching to last, on average, more than about 3 years in the conditions prevailing in the unclassified, minor, evolved roads forming the majority of Cumbria's road network. It is clear in my view that there is clearly a range of potential service lives and, I have no doubt, some patches will last more than 6 years whereas others will last less. Cumbria may say that in fact it would have obtained a greater service life, by dint of undertaking remedial works only when absolutely necessary, and by undertaking surface dressing to extend the life of roads with these patches in them. I accept, as already stated, that this may be so in some cases; equally however it is apparent that others will have failed earlier due to non-workmanship factors such as poor surrounding road conditions, poor foundations, water penetration and heavy trafficking. On balance I am satisfied that 6 years is a fair service life to take overall in this case.

25.38 In my view, the position overall is as follows:

- (1) The claim that Cumbria has advanced is entirely theoretical and, I am satisfied, cannot and will not ever be implemented in the sense that the remedial works it contends for will never be implemented in the way and at the cost which Cumbria contends for. Furthermore, they are remedial works which no reasonable highways authority in Cumbria's position would consider as being either reasonable or proportionate, even making due allowance for the fact that on this assumption Cumbria is the innocent

victim of poor workmanship amounting to breach of contract by its highways maintenance contractor.

- (2) Cumbria could have advanced a claim on a basis which was founded in reality, had some competent person or organisation been asked to consider what, if any, works reasonably required to be undertaken to the individual patches inspected by PTS, having regard to Cumbria's maintenance and repair policy and its statutory obligations. I am satisfied that this would have revealed that as regards some patches falling within the sample it was necessary to undertake immediate replacement or repair works, whereas as regards the remainder there would have been a range of options along the lines that I have indicated.
- (3) It would then have been necessary, when presenting the claim, to consider whether or not these or other similar remedial works would have been required anyway in the context of the service life of the patch. If so, then either the claim could not succeed or some credit for betterment would have to be given.
- (4) An analysis of that nature, if properly costed, could properly have formed the basis of a claim, assuming breach was established and also assuming extrapolation was proven.
- (5) In the absence of such an approach, when I consider the claims in relation to the individual patches which I examine, I will need to consider whether or not any defects for which liability is proved are such that they can properly form the subject of a claim on the basis advanced by Cumbria.

(c) **The individual visual defect claims**

Visual defect claim 7

- 25.39 Cumbria's case is that this patch suffers from fretting, edge deterioration and delamination, and complete replacement is required.
- 25.40 Mr Griffiths' view in his report was that he accepted there was some minor deterioration, but considered that the patch was in a safe condition. He noted that the surrounding road was in a poor condition and that there were "possible drainage issues". In his view there was no need for remedial works.
- 25.41 In cross examination he accepted that his opinion had been perhaps "too hasty" and that there was some "poor workmanship".
- 25.42 This was a carefully surveyed patch, where Mr Johnston of PTS had produced a detailed sketch as well as a useful photograph and, whilst it is true that the patch was almost 3 years old at the time of inspection, it does seem to me that the defects were cumulatively such that replacement of the patch was reasonably required. It is also a case where in my view Mr

Griffiths had been a little too rumbustious in his view in his report, although he was prepared to modify that view when he was cross-examined.

Visual defect claim 11

- 25.43 Cumbria's case is that this patch suffers from edge deterioration, and requires an inlaid crack repair. It was inspected by PTS when it was over 4 years old.
- 25.44 In his report Mr Griffiths accepted that there was some minor deterioration, but was of the view that overall, in the context of what he considered to be an existing drainage problem and the traffic to which it was subject, it was acceptable.
- 25.45 In cross examination he accepted that it was not a well formed edge, as is apparent from the photograph, and also accepted that it did not comply with the contract requirements, but maintained that nonetheless in the context of a very wet location it was acceptable for what was now a 7 year old patch.
- 25.46 In my view Cumbria has established that there was a breach, given the poor quality of the edge, but I also agree with Mr Griffiths that the patch appears to be working perfectly well after 7 years, and I am perfectly satisfied that no sensible highways authority would ever have undertaken a separate inlaid crack repair to this edge or indeed any separate remedial works.

Visual defect claim 19

- 25.47 This was a patch which I visited during the site inspection. It is a patch laid on top of an existing utilities trench, where the complaint is of edge deterioration due to fretting, requiring complete replacement. It is clear that there has been a long history of patch repairs at this location, the consequence so it appears of problems caused by the excavations to undertake the works to the utilities under the road surface.
- 25.48 Under cross examination Professor Knapton said that whatever else may be the problem here, and he accepted that there had been deformation due to excavation of the underlying utilities, nonetheless the patch laid by Amey had badly fretted. His view was that this could not be explained either by settlement or differential cracking damage for which Amey could not be held responsible.
- 25.49 Having considered the evidence, I am satisfied that there is some fretting, but that there is no significant edge deterioration. I am also satisfied that on the balance of probabilities the fretting has nothing to do with the utilities works and is an Amey defect. However, I am not satisfied that in the context of the overall poor condition of the road in this location, which has nothing to do with Amey, that any reasonable highways authority would consider replacing this patch in isolation from undertaking repairs to the whole area. If the claim had been advanced on the basis that Amey should make some reasonable contribution to the cost of replacing the affected area as a whole, I would have been inclined to accept such a claim, but not the claim as advanced.

Visual defects claim 28

25.50 The complaint is of edge deterioration. Under cross examination Mr Griffiths said that the edge deterioration was not significant, although he accepted that the joint was untidy. I agree with that assessment; it seems to me that although this is technically a breach of the contract, in the context of a claim valued at only £40 in my view no reasonable highways authority would undertake remedial works to this edge, given that the patch was almost 4 years old when inspected by PTS and there is no evidence of actual or imminent failure.

Visual defects claim 30

25.51 This is another edge deterioration claim, where Mr Griffiths' view was to similar effect as the previous claim, and I reach a similar conclusion. It is a messy edge, with some minor edge deterioration, but there is no justification for undertaking remedial works to this edge in isolation.

Visual defects claim 34

25.52 This is a delamination claim, where Cumbria says that replacement is justified. In his report and in cross-examination Mr Griffiths accepted that there was some minor delamination present after around 3 ½ years, but that the patch is acceptable in comparison with the rest of the area, so that there would be no purpose in undertaking an isolated patch replacement, whereas the whole area would benefit from surface dressing treatment.

25.53 I accept that the patch does appear to be in a visually poor condition, but no worse than the surrounding area. The patch appears to have been a rough and ready job, but nonetheless I which is neither defective nor failing, and again would not in my view be remedied in isolation by any reasonable highways authority, although it would be included within any wider scheme. In short, I accept that there is a defect, and I would have accepted a case based on a contribution to the cost of undertaking a surface dressing or other sensible scheme, but would not accept the case as advanced for a full replacement in isolation.

Visual defects claim 57

25.54 Cumbria's complaint is that this road is in poor condition, although no specific defect is noted. Professor Knapton was cross-examined about this patch. It appears that it was inspected by Mr Savage, and that one can see some small patches in a concrete road which is little more than a farm track with some evidence of historic bituminous patching. When asked what the criticism was of this patch Professor Knapton replied that it was the lack of straight edges to the patch which, frankly, is a risible criticism, in circumstances where he accepted that no sensible highways authority would ever consider expending monies on installing a replacement patch simply to provide straight edges. It is also a patch which is now over 7 years old and was over 5 years old as at the date of inspection.

- 25.55 This is also an example of a claim where by far the greater part of the amount claimed relates to traffic management; £751.68 of the total £891.95 claimed. In my view any reasonable highways authority would consider that if it was reasonably necessary to undertake traffic management at this cost level then there would have to be a very strong justification for the remedial works being undertaken in isolation, and there is none here. In closing submissions Mrs Pigott explained that the traffic management related not just to this patch but to 2 other allegedly defective patches on the same road. However: (1) that was not made clear on Cumbria's schedule, which was less than helpful; (2) it still does not explain why it would be necessary to provide such an expensive traffic management scheme, which appears to involve a complete road closure, for remedying 3 patches on an isolated unclassified road.
- 25.56 In closing submissions Mrs Pigott also contended that even though it was, she accepted, "a rough road and a farm track", nonetheless Cumbria was as entitled to expect the same standard and quality of work in that location as in any other location. Whilst that may be true from a strict contractual perspective, subject to the question as to whether or not the existing state of the road permitted that to be done, the nature and condition of the existing road is in my view extremely material to the reasonableness of a decision to replace the patches in question.
- 25.57 In closing submissions Mrs Pigott also drew my attention to the fact that the road in question appeared, she said, to have been surface dressed between the date of the PTS inspection and Amey inspection. She submitted, based on Mr Robinson's evidence, that the patches were likely to have been reinstated before the surface dressing took place. In response Mr Streatfeild-James submitted that publicly available information, obtained from the internet, revealed that the road had been closed for resurfacing to take place in which case, he submitted, there would be no question of separate patch repairs being undertaken, as there might be if only surface dressing had been applied. I do not understand why Cumbria was apparently unable to produce documentary evidence to show what works were in fact done to this particular road; they clearly would be relevant and disclosable.
- 25.58 It is also clear to me that there would be a range of possible solutions in a case such as the present, from doing nothing at all, to undertaking some rough and ready repair, to a full reinstatement. If, as appears most likely in my view to have happened, the road was resurfaced, there is no basis for making any claim unless it could be said that the condition of the patch was material to the overall decision, in which case an argument could be made for seeking some modest contribution to the overall cost. If the road was surface dressed, then a similar argument might apply. On any basis, in my view, there is no justification for the expensive works which Cumbria claim would reasonably have been undertaken in isolation from any other works, involving such an expensive road closure scheme for such a modest benefit.

Visual defect claim 64

- 25.59 This is a patch where Cumbria's complaint is of fretting and edge deterioration, and complete replacement is claimed. Mr Griffiths says that it is a little poor, but it is nonetheless

serviceable, and the whole area would benefit from surface dressing. In cross examination he accepted that the joint was untidy, but again queried why any reasonable highways authority would trouble to undertake a complete replacement of the patch at this location in isolation.

- 25.60 As against that, photograph 2 does show the poor condition of the edge and, given the adjacent pothole and taking into account the general condition of the road, I can understand why a reasonable highways authority might undertake some limited crack repair work at the same time. I do not accept, however, that complete replacement of the patch is justified, for which the claim of £464 is made. Thus I accept that there is a valid claim, but it is an extremely modest one.

Visual defect claim 88

- 25.61 Cumbria complains of fretting and edge deterioration, and seeks complete replacement of this patch. Mr Griffiths agrees that there is some edge deterioration, but considers that it is “fair wear and tear” with no evidence of poor workmanship or need for remedial works.
- 25.62 Under cross examination Mr Griffiths accepted that the photos showed that the edges were poorly formed, and observed that an attempt had been made to overseal them, where the oversealing has since worn away. He also noted the poor condition of the surrounding road, and suggested that the deterioration may have been caused by the state of the adjoining surface. He also noted that the patch was almost 4 years old when inspected by PTS and had not significantly deteriorated when inspected by Amey approximately 1 year later.
- 25.63 On balance I am not satisfied that the edge deterioration is a defect for which Amey is responsible, because I am satisfied that it is as possible that it is due to the poor condition of the adjacent road. I do accept that the edge is ragged, and that this is a breach of contract. However, I am not satisfied that there is any significant fretting for which Amey is responsible. I am not satisfied that any reasonable highways authority would consider replacing this patch, or conducting an edge repair, as opposed to leaving it until such time as the whole road underwent surface dressing or re-patching at some stage in the future. At best, therefore, in my view Cumbria might be entitled to recover some modest contribution to those future remedial works.

Visual defect claim 127

- 25.64 Cumbria’s complaint is that there are a series of deformations along the kerb line and seeks complete replacement of the patch. Mr Griffiths considered that the patch was in good condition after 4 years, when inspected by PTS, and that the deformations were extremely minor.
- 25.65 This patch was viewed on the site inspection and, although I accept that there were some very small deformations along the side of the kerb, and that they are likely to be the result of original defective workmanship, they are indeed extremely minor and have not worsened. Overall, the patch is in better condition than the surrounding road, and there is no risk to

safety. Whilst I accept that there is a defect and a breach, I am quite satisfied that no sensible highways authority in its right mind would even think of replacing this patch. At most, some extremely minor filling in work to the deformations would be required, at what I can only assume would be extremely modest cost.

Visual defect claim 164

25.66 PTS recorded that there was no edge sealant visible and that there was “major delamination” adjacent to the patch. It recommended edge sealing. Mr Griffiths noted that in his view the patch was in reasonably good condition, given its age. In cross examination he agreed that the joint was poorly formed, but did not agree that it was otherwise defective. In particular, he did not accept that there was any basis for concluding that any defect in the patch was causing or contributing to the poor condition of the adjacent road.

25.67 I accept Mr Griffiths evidence and conclude that although there is a breach of contract, in that the joint is not straight, there is no sensible basis for considering that any reasonable highways authority would consider it reasonable to repair that joint.

Visual defect claim 176

25.68 Cumbria’s complaint is that there is fretting, edge deterioration and delamination to this patch which, it is said, is a new patch laid on top of an old one. Cumbria seeks complete replacement.

25.69 In his response, Mr Griffiths said that there was a serious question as to whether or not PTS had located the correct patch. He also suggested that the degree of fretting and edge deterioration did not justify replacement.

25.70 This patch was inspected as part of the site visit. In cross-examination Professor Knapton accepted that the patch identified by Mr Savage was of a very different dimension to that recorded on the works instruction, and also agreed that a patch of the dimensions identified in the works instruction could not be found on site. It is therefore not possible to conclude that Cumbria is able to identify a patch which was installed by Amey and which is defective due to a breach by Amey, or that a specified remedial cost can be laid at Amey’s door. This seems to me to be a typical example of Mr Savage, working at speed, trying to locate the patch installed by Amey in a road where there were a large number of patches and, in his haste, getting it wrong, and obviously wrong. It tends to indicate, in my view, that the same is likely to be true in a significant number of other cases where Amey and Mr Griffiths have raised the same objection, but which Cumbria and Professor Knapton have ignored.

25.71 I must also say that I was unimpressed that even after the site visit Professor Knapton had said in the further joint statement (page 4) that even though he could not identify the particular patch, that did not matter because all of the patches in the area were all of poor quality with poor edges and, thus, he could still support the claim. This opinion involved an inference, without any supporting evidence, that Amey would have been responsible for all of these

patches, and that the poor state of the highway generally was either Amey's fault or, at the very least, not the real cause of the problem. However, it seems to me that Professor Knapton had no basis for making any of these suggestions. Moreover, in so far as Professor Knapton was unable to identify the patch in question, it is difficult to see how he could have endorsed the proposal for remedial works.

25.72 I therefore reject this claim.

Visual defect claim 208

25.73 This is a claim where Mr Savage recorded that the patch had almost totally delaminated with only remnants remaining. Following core testing, a claim for replacement was made. Mr Griffiths observed that the photographs showed that the surfacing along the track had fully failed, and that it was difficult to identify any particular patch.

25.74 When Professor Knapton was cross-examined, it was apparent from the photographs that it was very difficult to identify where any patch may have been. The most that he could say was that there was a "possibility" that there had once been a patch there. Although he sought to place reliance on the visual inspection sheet, since that was produced by Mr Savage I do not consider that I can place much reliance upon it. He was also taken to the core tests, which he had not reviewed previously, and accepted that they did not appear to have come from the patch identified by Mr Savage.

25.75 In my view it is clear that this claim cannot be supported. The fact that Professor Knapton felt able to support it in unqualified terms by reference only to the visual inspection sheet and photographs, without considering the core tests, indicates just how limited his desktop review was, because I am satisfied that a reasonably careful review ought to have led him to raise these questions and examine the core tests, which ought then to have led him to accept that he could not confidently link the claim with the particular patch.

25.76 A further point which arises here is that in my view no reasonable highways authority would ever have dreamed of wasting its valuable resources on the replacement of a 1.84 m² patch, in circumstances where the photographs show quite clearly that the whole road, which is clearly little more than a very lightly used farm track, has failed and where approximately one half of the total cost is represented by traffic management.

25.77 In short, it ought always to have been appreciated that this claim was completely unrealistic from start to finish. The only conclusion I can draw is that no-one within Cumbria appears ever to have taken a step back and applied a critical eye to the claim. Indeed it is surprising that even now it is pursued as part of the extrapolation claim or, on Cumbria's proposed fall-back argument, as a claim in its own right.

Visual defect claim 244

- 25.78 This is an edge deterioration claim where Cumbria's complaint is that the verge edge is breaking up. Mr Griffiths had expressed the view in his report that there was some serious doubt as to whether this was the correct patch, but in cross-examination he accepted that there was no basis for any "serious doubt"; it seemed to me he had been a little too trigger happy in his report, since a reasonably careful reading of the works instruction and the PTS report would have shown that there were no grounds for any real doubt.
- 25.79 In his report he had also suggested that the deterioration was simply fair wear and tear, possibly caused by adjacent water ponding. Although Professor Knapton had said in his evidence that water should not affect a well made and sealed patch, Mr Griffiths explained – cogently in my view – that if water is able to get under a patch at a road edge (or, for that matter, in a crack in a road surface adjacent to a patch) then it could remove the support for the patch and thus cause damage to it. Whilst I accept that as a possibility, I am not satisfied that it is a reasonable explanation in this case, given the distance between the affected edge of the patch and the water ponding, and also given the evidence of the edge core sample which shows poor workmanship, in that the joint has not been sawn, it is steeply graded and is debonded. Mr Griffiths accepted that the degree of grading made the edge contractually non-compliant, but otherwise did not accept the criticism, suggesting that the problems could be due to the difficulty of planing out a narrow patch of poor condition existing paving. However he was also referred to other cores, and had to accept that the patch did not appear to have been laid to the required thickness, and also laid too high, all of which supports and establishes in my view that this is a patch where the edge deterioration is due, on the balance of probabilities, to poor workmanship.
- 25.80 However I do accept Mr Griffiths' further opinion that no reasonable highways authority would undertake a limited repair of this patch by itself, when it is now 5 years old, when the edge itself is not failing to any significant extent, and when the overall condition of the patch is no worse than the surrounding pavement.
- 25.81 In summary, I am satisfied that Cumbria has established its case that there are defects in the patch, but not that the remedial works contended for are reasonable.

Visual defect claim 252

- 25.82 Based on the PTS report, Cumbria claims that it is necessary to completely replace this patch, due to the formation of potholes. Mr Griffiths response in his schedule was that the patch was 7 years old when inspected, and that the formation of potholes along the kerb line after that length of time was neither evidence of a work defect nor a safety hazard, and that what the road really required was a more general repair, such as surface dressing. Indeed it appears from Amey's subsequent inspection and photographs that since the PTS inspection some of the potholes have been provided with a temporary filling.
- 25.83 I accept Mr Griffiths' opinion that the presence of these potholes in this patch after 7 years does not in itself establish defective work, without some explanation as to how and why they have occurred, which has not been provided by Cumbria, so that the claim fails. Even if the

claim had been established, it is also a case where, as has occurred, a reasonable highways authority would not have undertaken a complete replacement, but would have undertaken a temporary filling if it was necessary to do so to address a potential safety risk, pending what would probably be a surface dressing of the road as a whole at some suitable future stage. Accordingly, whilst a claim for a modest repair would have succeeded, the claim for a complete replacement would not.

Visual defect 256

- 25.84 This claim was withdrawn on 27 April 2016, but not until after cross-examination of Professor Knapton, relevant in my view as to his credibility, so I should refer briefly to it.
- 25.85 The patch had been wrongly identified by PTS as running along the verge when, in fact, it ran across the road. Mr Collins in his witness statement, and Mr Griffiths in his report, had drawn attention to this error. However Professor Knapton in his report had proceeded to make what read as a rather patronising dismissal of their views, on the basis that they had, in his opinion, mistaken what he believed were the remnants of the delaminated patch for a road verge. This was despite him knowing that they had both physically inspected the site, whereas he had not. He had also failed to appreciate that the core sample taken by PTS could not, given its composition, have come from what he assumed to be the delaminated verge edge of the core.
- 25.86 After these points had been put to him under cross-examination, and he had conceded them, the claim was withdrawn. His approach, however, to this individual claim, and his willingness to support Cumbria's case in the face of clear evidence to the contrary, without fully investigating, was not impressive. Furthermore, this was not an isolated error by Professor Knapton, because he had made the same error as regards item 186.
- 25.87 As a small point, it appears from Cumbria's written closing submissions (paragraph 184, page 372) that this item has been removed from the sample as well as from the list of defective patches, whereas in my view if the evidence shows that there was no defect in the actual patch installed by Amey at this location, it ought to remain in the sample as a good patch, rather than being completely removed.

Visual defect claims 265, 320 and 327

- 25.88 These claims were withdrawn on 27 April 2016, seemingly on the basis that it was accepted that PTS had inspected patches which had not been installed by Amey.

Visual defect claim 289

- 25.89 This claim has been withdrawn as part of the sample relied upon to establish the extrapolated claim. This is 1 of the patches forming part of the 55 patches instructed and undertaken under works instruction F100440. It is accepted by Cumbria, following advice from Mr Hodgen, that it would be inappropriate to include the patches from this works instruction as part of the sample relied upon, because the results would skew the outcome in a non-representative way

against Amey. Although Cumbria nonetheless seeks to pursue the claims in relation to these 55 patches as a separate standalone claim, for essentially the same reasons as given in relation to the claims in relation to the sample if extrapolation fails I would not have been prepared to allow Cumbria to amend its claim to do so, even had such an application being made.

Visual defect claim 314

- 25.90 Cumbria's complaint is of edge deterioration and delamination, claiming that the patch needs a crack repair and a replacement of the surface course in the area of delamination. Mr Griffiths view, having physically inspected the site, was that the deterioration and damage was due to a problem of drainage, rather than poor workmanship. The site was inspected during the course of the site visit, at a time when the whole area had been subjected to further recent flooding from the adjacent river. Both Professor Knapton and Mr Griffiths were cross-examined in relation to this claim.
- 25.91 It is clear from the evidence overall, particularly the photographs taken by PTS, that there was evidence of delamination and edge deterioration when they inspected the site. However it is also apparent that heavy goods vehicles and buses use this road, travelling close to the kerb and stopping and accelerating away at the road junction, so that it is subject to heavy traffic. Moreover, it is also apparent that rainwater will run down the road close to the kerb.
- 25.92 Although Mr Griffiths argued that the area was liable to flooding, because the manhole had been laid at the wrong level, he had not undertaken a levels survey to establish this, and it was not immediately apparent to me that this was the case. He also had to accept that the core tests provided some indication of inadequate surface thickness and, in the end, was inclined to accept that there was evidence of defective workmanship, although he had not had the opportunity to measure the surface thickness. He was also prepared to accept that some remedial work was required to address the delamination, but did not accept that any work was necessary to the joint, which he considered to be poor but acceptable.
- 25.93 In my view there is clear evidence of non-compliance with the contract requirements, which would explain the presence of the defects identified, and I am not satisfied in the absence of convincing evidence that heavy trafficking, running water, or the flooding problem identified by Mr Griffiths are the causes, or the only substantial causes, of the damage. In the circumstances, I accept Cumbria's case on liability.
- 25.94 I am also satisfied that repair works are necessary, including a repair to the joint at 1 end, but I am not satisfied that a repair is needed to the longitudinal joint although I imagine that to undertake this work as part of the scheme overall would not substantially increase the cost.
- 25.95 This claim is, however, an example of what I suspect is a significant number of cases, in which a claim put forward by PTS as being completely straightforward is, on closer examination, rather less straightforward, with room for different views. I am also quite satisfied that given the adverse conditions referred to this is not a patch with an 8 year, or even a 6 year, life expectancy. As Professor Knapton said in the further joint statement, it has

clearly been subject to significant deterioration since PTS inspected, and it is plain that it is in need of attention now, and would have been in any event even without the workmanship defects for which I have held Amey responsible. I do not accept Professor Knapton's opinion that if it had not been for the workmanship defects, and had the edges been properly waterproofed, the patch could have been completely isolated from damage. This opinion, it seems to me, ignores the reality which, as I have said, is that it is not possible to create a completely monolithic seal, because the joints and edges will always be points of weakness as of course will surface damage through heavy trafficking. Since it is, however, a relatively new patch, I would have been satisfied that it was appropriate to hold Amey liable for some proportion of the cost of remedial works, which I would have put at approximately 50% of the claim.

(d) **Conclusions following my review of the individual visible defect claims**

25.96 I have reviewed the 17 patches on which the experts were cross-examined, and referred to 4 more which were withdrawn, 3 on the basis that Cumbria accepted that it could not be satisfied that the patches identified by PTS were patches installed by Amey.

25.97 Of those 17, in relation to only one (item 7) have I found Amey to be liable for the full claim. By far the 2 largest categories are those in which either Cumbria had not established that the patch surveyed was a patch installed by Amey (7) and those in which, although Cumbria had satisfied me that there was a breach, it has not satisfied me that it would be reasonable to undertake the replacement or repair claimed (8); in both of those cases I would not have awarded anything against Amey on the basis of the pleaded case, although I might have been prepared to award a modest contribution if there was evidence to reflect the cost attributable to remedying the defect as a small part of a larger scheme of remedial works to the wider area. That leaves two smaller categories, in which either I have found there to be no defect (2) or, there to be a defect, where Cumbria would be entitled to make some claim for remedial works, but less than that claimed.

25.98 Whilst for obvious reasons it would not be appropriate simply to extrapolate this analysis to the whole of the sample, because it could not under any circumstances be described as a representative sample, nonetheless it does represent a cross section of the claims, in circumstances where both sides may be presumed to have chosen to cross-examine the other party's expert on individual claims on the basis that they perceived their case to be strong in relation to those individual claims. The most significant finding, in my view, relates to the number where Cumbria satisfied me that there was a defect for which Amey was responsible, but was unable to satisfy me that Cumbria had undertaken, or would as a reasonable highways authority ever undertake, a replacement or repair to the particular patch specifically to address that defect in isolation. As I have said, in a number of such cases it would have been reasonable for Cumbria to decide to include the patch in an area of surface dressing to a poor section of road. However I am not satisfied that in the majority, let alone all of such cases, that would likely have taken place within the reasonable service life of the patch. Furthermore, there is no material before me which would enable me to attribute a proportion of the overall cost of surface dressing to each such patch on the basis of some rate per m² even

if, as to which I have not been addressed because it is not a pleaded case, it would be proper to do so as a matter of law.

(e) **Extrapolation**

General principles

25.99 The statistical experts were able to agree on the key principles relating to sampling and extrapolation, which are outlined in their joint statement and are worth setting out here, together with Mr Hodgen's one qualification to that agreement and Dr Van Liere's response to that qualification.

“1a. General

When it is difficult to study all the elements of a population, a sample can provide a practical and efficient means to collect data. However, for a researcher to extend a study's findings from the sample to the population, the sample must be representative of the population.

1b. Basic Steps in Sampling and Extrapolation

There are several steps to conducting a reliable sampling process. They generally include the following steps although there are occasions when the steps may occur in different order.

The first step is to define the relevant population and the relevant unit of analysis.

The second step is to define a sampling frame (the list from which elements will be sampled) that may or may not be the identical to the population.

The third step is to use a procedure to draw a sample from the relevant population.

The fourth step is to measure the relevant characteristic for each element in the sample using a reliable measurement protocol.

Finally, the data resulting from the sample must be properly analysed to produce the estimated characteristic for the sample.

This estimate can then, under the proper conditions, be reliably extrapolated to the population.

1c. Probability Sampling as a Method for Drawing the Sample

There are many methods to draw a sample. One method is probability sampling. Probability sampling requires the use of a method that identifies elements for selection through a randomized process in which each element has a known and non-zero probability of selection. Random process assures independent selections.

The probability of selection can be equal or unequal in a random sample. For simple random sampling with equal probabilities of selection there is no need to adjust the data for probability of selection. However, for unequal probabilities of selections (such as disproportional stratified samples or multi-stage cluster samples), any estimates of population characteristics must be adjusted for the unequal probabilities of selection.

There is a form of probability sampling referred to as “systematic sampling” in which the number of elements in the population is divided by the desired sample size to produce an interval (such as 1 in 10 or every 15th item). However for this to be considered a random sample it must include a random start between 1 and the interval (e.g., a random start

between 1 and 10 and then take every 10th item from there) and the interval must then be the same for each subsequent selection.

A properly drawn random sample can be used to extrapolate a point estimate of a statistic to a population. With a properly drawn probability sample confidence intervals can be calculated to account for random error due to sampling using known statistical principles.

The 95% confidence level is a widely used and generally accepted level of confidence for samples using probability sampling.

Even when probability sampling is used there will be a non-zero possibility that findings are not representative of the underlying population, this is recognised in the confidence level and margins of error that describe the results.

The primary benefit probability sampling has is that precise measures of the uncertainty inherent in the results and these measures of uncertainty can be derived from accepted statistical analyses.

1d. Non-Probability Sampling as a Method for Drawing the Sample

In many situations there may be circumstances where it is not feasible, practical or theoretically sensible to do random sampling, instead I may use nonprobability selection. Nonprobability selection methods rely on subjective judgements about which elements are sampled rather than relying on a random process that assures the selections are made independent of subjective judgements.

With nonprobability samples, the accuracy and precision of estimates of characteristics of the population can only be determined by subjective judgment. Therefore there is risk that the findings are not valid because of bias in the selection process. The risk of bias does not mean that it is certain that bias will be present, but it is an issue that should be reviewed for when using non-probabilistic sampling. As explained in 1e below, the researcher must consider all potential sources of bias in evaluating whether a sample can be reliably extrapolated to a population.

The subjectivity introduced by non-probabilistic sampling does not mean that nonprobability samples are necessarily not representative of the population. What it does mean is that nonprobability samples cannot depend upon the rationale of probability theory to calculate confidence levels and margins of error. Nonprobability sampling does not permit the calculation of the margin of error or confidence interval for a population estimate.

Nonprobability samples may be considered representative if it can be established that they are not biased by the subjective selection process. If bias can be identified then adjustments can be made to result in a representative result.

The findings from nonprobability samples that are considered representative can be extrapolated over the wider population, despite not permitting the calculation of the margin of error or confidence interval for a population estimate.

1e. Sources of Bias

In the context of survey sampling, bias means the possibility of a sample statistic to systematically over- or under-estimate a population parameter. Any sampling process can potentially introduce bias. The researcher must evaluate potential bias in determining

whether a sample is representative. Bias may be introduced into a sample estimate from many different sources including at least:

- *An incorrect definition of the population (an over inclusive, under inclusive or wrong population)*
- *A sampling frame that does not cover the relevant population (coverage bias)*
- *A non-random method of drawing the sample (selection bias)*
- *A failure to compute or complete the relevant measure or computation for each sample element (nonresponse bias)*
- *A failure to properly measure the characteristic for each sample point (measurement bias)*

The researcher must consider all potential sources of bias in evaluating whether a sample can be reliably extrapolated to a population.

1f. Sample Size

The sample size in a sampling project is an important consideration. The appropriate sample size for any given study is determined by a number of factors.

One is the expected variation on important characteristics in the population for both the dependent variables (such as depth of remedial surfacing) and any related independent variables (such as geography, climate, road characteristics, etc.). The more variation there is, the larger the sample generally required to reliably measure a given sample characteristic.

For probability samples where a margin of error or confidence interval is to be calculated, the size of the margin of error considered reasonable and the associated confidence level is a key consideration in choosing a sample size.

Third, if estimates are to be made for subgroups, then the sample size required for each subgroup is a key consideration.

Calculations of confidence interval, sample sizes and confidence levels

The experts agree that where the conditions are appropriate to calculate confidence intervals, sample sizes, and confidence levels, the following formulae should be used. Where all but 1 of the variables are known, the formula can be rearranged to produce the desired unknown.

[Formula omitted]

As a general matter the courts usually decide the margin of error that is acceptable for a given matter, but as a general principle samples that produce margin of error of plus or minus 5 to 10 percent for a proportion at the 95 percent confidence level are generally considered reasonable.

1g. Combining Samples

It is generally inappropriate to combine samples taken from different populations with different selection methods and treat them as a single sample from a single population without appropriate corrections. Samples taken in multi-stage sampling must correct for any differences in the probability of selection at each stage and across stages.

Points 1a to 1g are derived from the bases of Statistical Theory, as such Mr Hodgen agrees with them. However, Mr Hodgen recognises that in situations where the ability to sample has

been limited - such as limitations in documentary information that would be necessary for items to be found - it would be reasonable, as long as adequate safeguards to identify and remove bias have been applied, to extrapolate results from sampling that is less than theoretically perfect.

Dr. Van Liere agrees that it is possible to evaluate whether a sample is representative but it is incumbent on the researcher relying on the sample to demonstrate that adequate safeguards have been implemented and that the sample can be shown to be reasonably representative.”

- 25.100 In the first joint statement, Mr Hodgson’s position was that he did not have sufficient information to agree or disagree with the views being expressed by Dr van Liere, which were that the process undertaken by Cumbria was neither probability random sampling nor could it be considered properly representative. I find it difficult to accept that Mr Hodgson was not already aware, through his previous involvement in this case as well as his reading in prior to the first joint meeting, that probability random sampling had not been used; indeed his letter of instruction of 25 February 2015 said in terms (page 4) that the patching and surfacing claims, unlike the street lighting claim, were based on representative as opposed to random samples. In my view, having read his reports and heard him give evidence, I conclude that the explanation is he did appreciate this, but was not willing to commit himself until he had reverted to Cumbria. I agree with the submission made by Mr Bowdery in oral closings that it is probable that the penny only fully dropped – in the sense that Cumbria and its advisers all became fully aware that there was a divergence between what was pleaded and what Mr Hodgson would be able to support - after that first joint statement, which explains the terms of the reply to the amended defence to amended counterclaim, served in July 2015, where it was pleaded (paragraphs 56 and 57) that Cumbria’s case was and would be, based on expert statistical evidence, that a representative as opposed to a random sample had been achieved.
- 25.101 In my view that amendment did no more than the bare minimum, when it ought really to have made it plain that Cumbria no longer relied upon its existing pleaded case in relation to probability random sampling, so that those parts of the amended counterclaim should be treated as deleted. Whether or not it would also have been necessary to produce a draft re-amended defence and counterclaim, formally deleting those parts of the pleading, is a matter for debate, but I am satisfied that at the very least the position should have been made absolutely clear at that stage and in any event well before day 2 of the trial. Nonetheless, whilst the position may not have been made absolutely clear from the pleadings, by the time the further joint statement was produced in October 2015, and by the time Mr Hodgson had produced his principal report in November 2015, he had expressly accepted that the approach adopted by PTS was not genuine probability sampling and, hence, not random in the statistical sense.
- 25.102 Starting from first principles, I accept Cumbria’s primary submission that it would have been quite impracticable for it to have visually inspected and/or undertaken core testing to all of the patches laid by Amey over the duration of the contract or, even, over the last few years of the contract. The statistics in terms of the likely time and cost of doing so are marshalled by Mr

O'Farrell in his first witness statement (paragraphs 103 – 110) and are not seriously challenged.

25.103 I also accept that Cumbria is in principle entitled to advance a case based on sampling, and that there is no legal principle to the effect that only random probability sampling is an acceptable method of so doing. Thus I accept that in principle representative sampling can be an acceptable method of advancing such a case. In opening submissions (paragraphs 511 – 519) and again in closing submissions Amey contended that if Cumbria had wished to do this then it should have applied for and obtained a case management order for a trial by sample, and that in the absence of such an order it was not open to Cumbria to seek to establish a claim for defective work in relation to a notional patch which was not within the sample, by reference to findings made in relation to an actual patch which was within the sample. Amey accepted that it might be possible, in appropriate cases, to discharge a legal burden through statistical evidence, but that was not the case here, where each allegation of breach and loss in relation to each patch amounted to a separate cause of action.

25.104 In my judgment, that argument is put too high. It is well known, by reference for example to the cases on amending statements of case outside the applicable limitation period, that what is a cause of action may be a question of fact and degree. However it is plain, in my view, that in this case Cumbria's pleaded case is that Amey was guilty of a series of systemic breaches in relation to its patching works, extending to a significant proportion of the total number of patches laid over the duration of the contract, and in respect of which Cumbria is claiming damages. As I have already said, there is a difference between such a claim and a claim where there are a number of individual claims being made in relation to a number of individual identified patches. Although it may be said that the dividing line between the two classes of claim may be difficult to draw in some cases, it is clear in my judgment that this claim falls squarely within the former category. As such, it seems to me that there is no legal impediment to Cumbria seeking to advance its claim in this way; the question for me is whether it has established its case on the balance of probabilities, having regard to the hurdles it has to surmount in making good its case on the basis of systematic breach.

25.105 Cumbria argued that because sampling was envisaged and indeed permitted by the contract, pointing by way of example to the obligation to undertake core testing of up to 10% of the patches in appendix 1/5, there can be no objection to Cumbria advancing its case by way of sampling here. I do not accept that argument; there is nothing in the contract to the effect that any disputes as regards defective workmanship should or may be determined by the application of some agreed sampling procedure, and the references to sampling as part of the quality assurance and testing process do not go nearly far enough to assist Cumbria. In any event, in the absence of some further contractual provision specifying how sampling should be undertaken, for example sanctioning representative as opposed to random probability sampling, this does not assist Cumbria in establishing that the sampling process it has undertaken in this case is acceptable.

25.106 Cumbria also argued that because Amey had also advanced its patching claim 17 on the basis of sampling, it could not at the same time credibly submit that it was not open to Cumbria to

do so in relation to these patching and surfacing claims. I do not accept this argument. Amey has attempted, but failed, to persuade me to find in its favour in relation to extrapolation on claim 17. That attempt has no relevance, other than the most tenuous forensic relevance, to Cumbria's patching and surfacing claims. It might, I accept, have been different had I found for Amey on its claim 17, because it might then have been said that it was not open to me to find for Amey on the legal argument summarised in paragraph 25.104 above. However, since I have not found for Amey on its claim 17, nor have I found for Amey on the legal argument summarised above, this point does not arise.

25.107 There was an issue as between Dr van Liere and Mr Hodgen as to whether or not it would have been practicable to undertake genuine probability random sampling in this case. Mr Hodgen's view was that it was completely impracticable, since the size of the sample needed to achieve genuine probability random sampling would have made it far too time-consuming and costly to have been undertaken. Dr van Liere's view was that a properly random sample could have been undertaken without the need to inspect or to core anything close to the whole population. Dr van Liere accepted that he had not undertaken an analysis to demonstrate how this could have been achieved, so as to give a detailed explanation or a precise number. In my view, based upon his evidence, it would have been possible to do so, but equally there would have been so many variables that in order to create rules that would make it a genuine probability random sampling exercise it would probably have proved to be a difficult, time-consuming and costly exercise. I accept that in those circumstances it is not unreasonable in principle for Cumbria to seek to rely upon representative sampling in this case. The key issue, however, is whether or not Cumbria can demonstrate that it is sufficiently representative to enable the court to place reliance upon it, in circumstances where on any view it converts a small number of individual complaints, modest in value both individually and collectively, into a very substantial claim. I entirely accept Dr van Liere's opinion that it is key in such a case that: (1) the exercise should be the subject of very careful advance planning to ensure that it can be defended as properly representative; (2) those conducting and supervising the exercise should take care to ensure that any issues which arise during the course of the exercise which might cast doubt on its representative nature are identified and addressed in the same careful way. As Dr van Liere said in cross-examination, the aim is: (1) to get as close to probability sampling as is reasonably possible, in order to remove subjective contamination, and thus to remove or reduce as far as practicable any actual or potential bias; and (2) insofar as it is not possible entirely to remove bias, to recognise that it is still present and take appropriate steps to address it - the example in this case being to remove all of the patches contained in works instruction F100440 from the sample (see paragraph 22.89 above).

Summary of Amey's criticisms

25.108 In summary, Dr van Liere considers that the exercise undertaken by Cumbria throws up a number of serious challenges which would not be present in a more straightforward case, and which Cumbria has failed even to recognise, let alone to consider or to address.

25.109 The overall objection is that since the sample is not a genuinely random probability sample, it is not possible to compute a confidence interval or margin of error to satisfy a court that it is

safe to adopt. In such circumstances, given the purpose for which the sample is being used, it is particularly important to ensure that the sample is as representative as it reasonably can be, so as to justify the results of the sampling exercise being extrapolated to the whole population. Cumbria has failed in any meaningful way to recognise, consider or address any of this, whether at the initial stage or at any time subsequently.

- 25.110 The sampling process was initially intended to ascertain the presence or absence of specified states of disrepair, initially solely in the context of patches made with 190 pen, but is now being attempted to be used to seek to extrapolate a claim for damages for the cost of remedial works to remedy such disrepair on the basis that it amounts to a breach of contract. It is being used for this purpose in a series of unique, factually different and potentially complex scenarios. In short, the sample is being used for a purpose for which it was not originally designed, with no or insufficient attempt being made to address these difficulties, whether at the outset or during the later stages.
- 25.111 The sampling process has extended over a lengthy period of time, beginning in 2012, when each patch might be anything from 0 to 7 years old, to 2014, where each patch might be anything from 3 to 10 years old. This variation needed to be considered and addressed in the sampling process, but was not. In particular, it was vital for Cumbria to consider whether it was appropriate simply to combine the results of these different series of samples, either at all or without considering what, if any, adjustments ought to be made in order to prevent or minimise any actual or theoretical bias.
- 25.112 Cumbria has failed to address the issue of the patches which do not form part of the population from which the sample has been taken. There are a number of separate aspects to this point. Firstly, insofar as patches which could not be located using GPS were not included. That is a source of potential bias, insofar as it weighs against the older patches, laid before GPS was being used, and insofar as it weighs against patches in particular areas, where GPS was not used as early as others, yet nothing has been done to address that as a source of potential bias. Secondly, a decision was made after the exercise had started not to inspect pre-surface dressing patches, since they would be covered up by the surfacing and hence difficult to inspect by visual inspection alone. The implications of that decision in terms of bias were not considered. In particular, if the patch had been inspected and no visible defect was present, that would have tended to indicate that the patch was performing the role for which it was intended, even if it might have been technically in breach of contract, and thus that it was unlikely that any remedial costs would ever be incurred within its service life time in relation to that patch. In such circumstances, consideration should have been given to inspecting such patches, and treating those without visible defect as satisfactory for the purposes of the sampling exercise. It is no doubt for that reason, says Amey, that Professor Walsh's original proposal recommended that this be done, but that recommendation was then ignored by Cumbria. Amey says it is obvious that the reason that this change was made was because Cumbria knew full well that including pre-surface dressing patches in the sampling exercise would significantly reduce the total value of the claim and, hence, that this decision was a source of not just theoretical but actual bias. Furthermore, since as much as 90% of the total

population was ultimately screened out for this reason (see paragraph 6.43 of Dr van Liere's principal report), it was a very significant source of bias.

25.113 Cumbria failed to give any consideration as to the size and composition of the sample to be tested. Whilst Dr van Liere accepted that it was difficult to do so in a case such as this, with a substantial variation in potential relevant variables, such as the age of the patch, the type of the patch, whether it was laid by hand or by machine, the weather conditions in which it was laid, the gang who laid it, the condition of the adjoining road surface when laid, including any underlying foundation or drainage issues, the road type, the geographical area, and so on, nonetheless these potential sources of theoretical or actual bias had to be faced up to, and a careful, defensible decision taken as to how, if at all, to address them, but they were simply ignored in this case.

Cumbria's response summarised

25.114 Cumbria, supported by Mr Hodgen, defends its sampling exercise, accepting that it may not be perfect but contending that it is sufficiently representative to be relied upon either as it stands or, if necessary, with some adjustment – possibly by way of discount – to cater for any residual uncertainties.

The chronology of the PTS investigations

25.115 In order to address these criticisms, it is important to understand the relevant chronology. I have already referred, at paragraphs 6.19 and 6.20 above, to the discovery of the 190 pen issue and the subsequent investigations.

25.116 What was readily apparent from the cross-examination of Mr Robinson and Mr Roper was that whilst there had been a rather desultory investigation in 2010, nothing had emerged from it, and the investigation had been effectively shelved. It was only revived by Mr Robinson in late 2011 or early 2012, plainly with a view to seeking to establish a counterclaim against Amey which could be used as the basis for withholding against payments otherwise due to Amey towards the end of the contract. What is relevant for present purposes is that the investigative process was never intended as a dispassionate enquiry, but was always driven by Mr Robinson as a platform on which to build a claim, and the decisions made by Cumbria about the sampling process have to be addressed in that light.

25.117 In March 2012 PTS was instructed to undertake a further investigation, and it was agreed that a sample of 300 patches would be inspected. It is clear that there was no consideration at that stage as to whether this was to be a statistically random sample or not. Although there was some involvement from Professor Walsh, there is no indication that any advice was obtained from Mr Hodgen and or anyone else with experience in statistical sampling. Cumbria has exercised its entitlement to claim privilege as regards the advice given by Professor Walsh so that there is no evidence that he provided, even if he had been qualified to do so, any advice as to the number or selection of the sample. Insofar as there is any evidence about this, Mr Roper said that he believed the number had been selected by his superior, Mr Simon Smith of

the Cumbria audit department, but on what basis he could not say. Some indication that there was never any intention from the outset to produce a dispassionate non-biased sample is given from the fact that the initial decision was to look at samples of patches laid in the first 3 years in the most heavily trafficked areas, clearly – I am satisfied – with a view to seeing how the patches which had been laid longest and subject to heaviest use were coping, with a view to seeking to demonstrate that the use of 190 pen had had adverse consequences upon the durability of those patches.

- 25.118 By July 2012 the report obtained from PTS, based on an initial sample of 100 patches, demonstrated that there was no correlation between the use of 190 pen and any incidence of patch deformation, but it did reveal some evidence of other defects in some of the patches which – I am satisfied – Mr Robinson decided to use as an alternative means of building up a counterclaim. This was never an investigation conducted solely to ascertain if there was a genuine safety concern about the use of 190 pen or, indeed, about Amey's patches generally.
- 25.119 By December 2012 further sampling with a view to reaching the original number of 300 was continuing. The subsequent report produced similar although not identical results to the initial report and also showed some significant variations between the various areas within the county. By spring 2013 approximately 30 samples had also been subject to core testing, chosen not on a random basis but by reference to a specific patch type. PTS was being asked, at the same time as undertaking this sampling exercise, to produce a report to support Cumbria's counterclaim in the protocol exchanges between Amey and Cumbria.
- 25.120 In July 2013 Amey provided Cumbria with Mr Taft's criticisms of the PTS exercise, in particular criticising the fact that it was not a statistically random sample. Whilst I accept Mr Robinson's evidence under cross-examination that he did not fully understand the difference between statistically random and representative sampling at this stage, I have no hesitation in rejecting his suggestion that Mr Taft had endorsed a representative sampling approach to the claim.
- 25.121 In October 2013 Cumbria instructed PTS to undertake more inspections. Mr Robinson said that by this stage he had received a paper written by Mr Hodgen in response to the comments made by Mr Taft, providing some information about statistical sampling. Although Cumbria has maintained privilege in the paper, it is clear from what Mr Robinson said that by this time he, and the others involved with the claims process, understood that the aim was to achieve a sampling exercise which could be described as meeting a 95% (+/- 5%) confidence level. However I also accept that Mr Robinson still did not have a full understanding of the difference between statistically random and representative sampling. It is clear that Cumbria did not take a decision to instruct PTS to start from scratch to produce a statistically random inspection process. I have no doubt that by this stage time and cost were becoming ever more critical features. For example, there was a desire to save the cost of traffic management, which restricted the sites which PTS could inspect safely, and the defence and counterclaim was due to be served by the end of February 2014.

- 25.122 Mr Robinson was asked about his state of mind at the time the defence and counterclaim was served. He accepted that he was the person at Cumbria who was primarily responsible for this aspect of the case, assisted by JR Knowles (although not, I emphasise, Mr McGoldrick). He said that he believed that a reasonable representative sample had been obtained, as opposed to one obtained precisely in accordance with the information provided by Mr Hodgen. He accepted that he was aware that this was not the same thing as a random sample. He was asked why the defence and counterclaim had been pleaded on the basis that Cumbria “will rely on the evidence from a forensic accountant [a reference, he confirmed, to Mr Hodgen] to establish that the [percentage defect rate] can be extrapolated across the total number [of patches] with a 95% confidence rate and +/-6.1%”: paragraph 38 in its un-amended form. He was clear that at this time Mr Hodgen did not know the detail of the sampling exercise undertaken by PTS, so that it was not his evidence that Mr Hodgen had advised that based on the sampling process already undertaken a 95% confidence rate based on random sampling could be established. He agreed that it was a mistake to plead it in this way. He suggested that it was the mistake of the barrister who had drafted the pleading; not, I emphasise, counsel now instructed. He agreed that it should not have been pleaded in this way, and explained that the pleading had been produced under great pressure to a tight deadline, which explained how the mistake had been made.
- 25.123 Whilst I appreciate that I am making this finding without the benefit of all of the relevant evidence which might have been adduced, nonetheless I am satisfied on the evidence before me, having heard Mr Robinson and read the transcript of his evidence, that the simple explanation is that matters were not quite so clear to him then as they are now. At the time Mr Robinson believed that it was acceptable to plead the case as it was, because he hoped that the sampling could be completed in a way as would enable Mr Hodgen to say that in his view either it was random sampling, or was sufficiently close to it that it achieved the 95% confidence rate which was the aim. As I accept, in fact that was not something which Mr Hodgen could ever properly have said, but I am not satisfied that Mr Robinson was clearly aware that this was the case at the time. It is important, in my view, not to judge events at the time with the very considerable benefit of the hindsight that comes from a case proceeding all of the way through to trial.
- 25.124 In that respect, Mrs Pigott made a neat point in oral closing submissions, when she observed that as late as April 2015 Amey, in a response to a request for further information in relation to its claim 17, referred to having selected a sample on “a random basis ... or in any event on a representative basis”, in circumstances where it must have been apparent to Amey at that time, with the benefit of Dr van Liere’s advice since early 2015, that its sample selection could not by any stretch of the imagination be described as statistically random. If Amey and its advisers were capable of confusing statistically random with colloquially random at that later stage, it seems perfectly credible to me that Mr Robinson and Cumbria’s advisers were capable of making the same genuine error in early 2014.
- 25.125 It was also clear from the subsequent evidence of Mr O’Farrell, when asked about the June 2014 PTS report, that although he said he was aware of the need to demonstrate that the sampling had been undertaken randomly he was not referring, specifically or consciously, to

random probability sampling, as opposed to representative sampling. I am satisfied that the same is true later in 2014, when the counterclaim was added and further details added as to the appropriate confidence rate. At this point the reference to forensic accountancy evidence was replaced with a reference to expert statistical evidence, so that it is not clear whether these amendments were approved by Mr Hodgen or not. Whatever the position, however, I am satisfied on the evidence before me that it was reflective of a continuing confusion, not just in Mr Robinson's mind, but throughout those involved with this claim, as to the precise difference between random and representative sampling and, in particular, whether it was possible to contend that a sufficiently robust representative sampling exercise could be regarded as achieving a 95% confidence rate.

25.126 For these reasons, as I indicated in the introduction section of this judgment, I am satisfied on the balance of probabilities on the evidence before me that neither Mr Robinson nor anyone else on Cumbria's side deliberately sought to mislead either Amey or the court as regards the drafting of these sections of the defence and counterclaim, whether in their original or amended form.

25.127 I return after that important digression to consider in a little more detail the investigations undertaken by PTS.

25.128 I have already referred to the initial instructions to inspect 300 sites. This was intended to be completed in 15 shifts, which thus involved 20 inspections per shift inclusive of travel and thus assumed, as Mr O'Farrell confirmed, only around 10 minutes at each site. In my view, whilst that was sufficient for the type of safety inspection which PTS would normally undertake, it was not sufficient for the time which would be needed in this case to locate the site, identify the relevant patch or patches as being those laid by Amey, and then proceed to inspect, ascertain, record and photograph any relevant defects. This time pressure explains, in my view, whilst so many errors may be seen to have crept in to the process.

25.129 The format of the inspection sheets was taken from one intended for New Roads and Street Works Act purposes and was produced with assistance from Professor Walsh. There are a number of criticisms which can be made of the form, most significantly that there is no requirement to identify or describe the location or extent of certain defects, for example edge deterioration, delamination or shoving, or to make clear whether any edge deterioration is to the patch or the adjoining road surface or both. Most significantly, but not surprisingly given the ambit of the instructions, there was no requirement for the inspector to offer any assessment of the cause of any defect observed, whether or not it was defective work (and if so what), existing problems with drainage, existing problems with the adjoining road, subsequent heavy trafficking, or a combination of such factors.

25.130 Moreover, as I have said, from a fairly early stage the form was departed from, so that paragraph 3, recording a surfaced over patch as acceptable if there was no evidence of any defect below the surface, which was introduced on Professor Walsh's advice, was dispensed with. Furthermore, there were many cases in which the sketches required by paragraph 5 were not provided, in circumstances where – as Mr Savage had to accept in cross-examination – the

photographs by themselves were often less than helpful in identifying precisely what had been noted and where.

- 25.131 The results by December 2012, when almost 300 had been inspected, did not provide a clear picture. For example, although there was a reasonable number of patches where edge deterioration had been noted, there was a clear distinction as between the areas, with the majority being in the Allerdale area. It was also said that more investigation was needed to see if edge sealant had, or had not, generally been applied. Notwithstanding the criticisms previously made by Mr Elliott and Mr Taft (as Amey's paving and quantum experts respectively) of the PTS inspections it appears that no consideration was given to changing either the inspections or the format of the inspection sheets so as to address the criticisms. When asked why not Mr O'Farrell replied, reasonably enough so far as he and PTS was concerned, that this was not a matter for him or PTS but for Cumbria to decide, with the benefit of input from Professor Walsh and its other advisers. There is no indication from the evidence disclosed by Cumbria that it did so.
- 25.132 In October 2013, when inspections resumed, there was an agreement to limit inspections to no more than 5 in any one works instruction, or 1 in 10 if more than 50 were instructed, although it is also clear that instructions to this effect were not always adhered to, so there are examples of every relevant patch in a road being inspected. Again it would appear that the dictates of time and cost took precedence over any considerations of seeking to ensure a genuinely representative sample.
- 25.133 Furthermore, I am satisfied that there were considerable variations in the quality of the inspections. My assessment of Mr Savage was that his inspections and reports were rather perfunctory, so that he did not even sign the vast majority of the inspection sheets, and made a number of assumptions as to which was the relevant patch, which proved to be incorrect in a number of cases. It is also apparent that in a number of cases the defect was not apparent from the photographs taken, and no sketches were provided. The end result, I am satisfied, is that the inspection sheets cannot in themselves be regarded as wholly reliable, since they are the product of individuals working under considerable pressure of time, using a poorly designed form, and being asked to record defects without providing the necessary information which would enable any subsequently instructed expert or, for that matter, this court to determine the precise location, extent, seriousness and cause of that defect. Mr Johnston confirmed in evidence that his approach was only to record a pre-surfacing patch as a non-defective patch where he had been able to find physical evidence of the patch on inspection. This, as will be apparent, excluded from consideration all of those patches which had been completely covered over, which would doubtless be the vast majority where they were pre-surfacing patches. He also confirmed that it was not his function to assess the reason for any observed defect; so that others had to make that decision based on the evidence he had provided, after the event, leading in some cases to inconsistent results.

Mr Hodgen's evidence

- 25.134 In summary, Mr Hodgen's view was that if a sample can be considered representative then it can be used as the source of an extrapolation that will lead to a reasonable quantification of issues within the population as a whole (paragraph 3.28 principal report). However, in comparison to the question as to whether or not a sample is a random probability sample, to which the answer can only be yes or no, the answer to the question as to whether or not a sample is a representative sample will depend on the purpose for which the sample has been obtained. In this case, for example, there is a very significant difference between a representative sample which is so carefully devised and executed as to be for all intents and purposes as good as a random sample, and one which is so infected by factors introducing bias that it is for all practical purposes worthless. In this context, it should be borne in mind that bias is a term of art, meaning potential bias, as opposed to actual bias, and that the bias may be favourable or unfavourable to the person commissioning the sample.
- 25.135 Mr Hodgen accepted that there was no available objective evidence in relation to the material obtained from the samples (the "outputs") which could be used to demonstrate the accuracy and, hence, the representative nature of the sampling process. In other sampling situations it may be possible to undertake, either by way of a further control sample or by way of a cross check upon information obtained from the sampling exercise, the reliability of the results obtained. Mr Hodgson accepted that in the absence of such evidence it was necessary to demonstrate that the decisions made as to the design of the sampling process and the performance of the sampling process were undertaken in such a way as to minimise contamination of the reliability of the process through the introduction of bias. The design of the sampling process involves thinking about and making decisions on such matters as: (1) the definition and delimitation of the population from which the sample would be chosen; (2) the selection of the sampling frame, i.e. the framework used to select the samples from the overall population in question; (3) the process by which the samples would be obtained; and (4) how foreseeable occurrences liable to arise in the course of sampling and which might introduce bias would be dealt with. This all involves obtaining an understanding of the likely subsets within the overall population and what factors affect, or may affect, the representative nature of the sampling process.
- 25.136 As Dr van Liere said, in this case there are a very large number of factors which could influence the degree of probability that a defect might exist in a particular patch. To take an example at one end of the spectrum, if there was a record of a subsequent inspection by a Capita inspector recording the patch as defective and in need of repair, if a decision was taken to sample only sites where there was such a record, then that would obviously introduce a high risk of bias. To take another less obvious example, if a decision was taken only to sample patches laid within a particular contract year, then whilst it might be foreseeable that there would be a correlation between the age of the patch and the likelihood of finding a defect, it would be difficult to know just how likely or strong that correlation would be without having knowledge of more factors relevant to the circumstances in which such defects might materialise. That is an illustration of how difficult it can be when undertaking a representative sample to ascertain the factors capable of introducing bias, making an assessment as to the likelihood of bias being introduced, and if so with what effect, and considering what steps can be taken to avoid or mitigate against any bias thus introduced.

25.137 Since Mr Hodgen was not an expert on anything other than statistical sampling and since he had not, as he made clear and as I accept, had any direct input into the detail of the sampling process, it followed that he had to accept that he was not able to speak as to the decisions made by PTS and others as to whether or not, and if so how, regard had been had to these matters when the sample was designed and implemented. It followed, since neither Mr O’Farrell nor anyone else had given evidence on such matters, that there was a lack of evidence from Cumbria’s side about the steps, if any, undertaken by Cumbria to address these risks at the time. Whilst I accept that that does not mean that Cumbria cannot seek to deal with these points by reference to Mr Hodgen’s evidence as to the likely impact of these factors, it does mean that Cumbria’s evidence comprises more of a retrospective justification for the consequences of not doing what should have been done at the time than evidence as to what was actually done by persons applying their minds to these matters at the time.

25.138 Mr Hodgen accepted that in forming his opinions he had placed heavy reliance on the expertise and experience of PTS in general and Mr O’Farrell in particular. However in my view that heavy reliance was misplaced, having regard to the criticisms which I have held justified in relation to the way in which the sampling process was devised and implemented (and I should make clear, if not already apparent from what I have already said, that this is not necessarily intended as a criticism of either PTS or Mr O’Farrell, rather than the situation in which PTS came to be instructed to undertake this process). Mr Hodgen had not himself undertaken the exercise of investigating in detail what PTS had done in terms of devising or implementing the inspection system, or considering what potential sources of bias were introduced by what had been done. To take an example, he had not considered whether or not it was appropriate to have had incorporated the results of the initial sample, which was premised on positively searching for defects which would prove Cumbria’s putative case about the effect of using 190 pen, into the results as a whole. It appears to me to be plain that this initial sample plainly introduced a source of bias, given the way in which the samples were selected. Mr Hodgen’s approach was to say that relying on this initial sample causes no injustice to Amey, because in fact the percentage results are more favourable to Amey than those of the subsequent samples. Whilst I accept that this was a typically common-sense way of answering this question, nonetheless it is deficient in my view because it does not investigate or thus address other potential sources of bias introduced by the use of this initial sample which may not be so immediately apparent and which are not addressed if the sample is simply included without more.

25.139 I reach the same conclusions as regards PTS having departed from the limits set on the number of patches to be sampled from individual works instructions. Here, the fact that the sampling process produced the “outlier” result, where it transpired that all 56 patches undertaken under works instruction F100440 were inspected, and all were said to be defective, is relevant because it tends to show that something went very badly wrong with the sampling process, if it was intended to be reasonably representative. Although Mr Hodgen rightly said that by removing these results from the sample that direct bias was removed, with a very substantial financial effect on the overall claim, what that did not also do was to address the circumstances which had led to this happening in the first place. That might have

revealed that there were other, less dramatic and hence less easily discoverable, similar “clusters” of defective patches resulting from the initial rule being relaxed or not adhered to, and thus adversely affecting the representative nature of the sampling process. If so, then a proper approach would have been to exclude all of those samples, or at least consider some suitable method of catering for this, as opposed only to disregarding the obvious outlier sample.

25.140 Mr Hodgen appeared to have accepted, in an uncritical manner, PTS’ argument that there was no reasonable alternative from departing from the limits on the number of patches to be sampled from individual works instructions because of the difficulty of finding patches which were capable of being inspected. If, however, that was due for example to difficulties with traffic management in relation to certain roads, it would have been necessary for Mr Hodgen to consider whether that in itself introduced a source of bias, but there is no indication that he did do so.

25.141 Most significantly of all, he had not addressed the significance of excluding pre-surface dressing patches from the cohort to be sampled. He had not considered the reasons for the original rule, introduced by Professor Walsh, or the decision to abandon it. He had not considered the implications of leaving out in their entirety all of these samples, by reference to the use to which the sampling exercise was being put by Cumbria. He had not appreciated that a procedure for sampling which excluded all pre-surface dressing patches, but which was then intended to be used to extrapolate to all patches, including pre-surface dressing patches, was manifestly unsuitable and unsatisfactory. He had not engaged with the fact that this had led to such a dramatic reduction in the population cohort to be sampled, from 100% down to 7%.

25.142 In these circumstances I have no real hesitation in preferring the expert opinion of Dr van Liere to that of Mr Hodgen where there is a divergence between the two. As I have said, Dr van Liere seems to me to have far more real expertise in the particular issues arising in this case than does Mr Hodgen, and to have grappled with the details of the sampling process and the problems with it in far more detail than had Mr Hodgen. A judge should always guard against the risk that he or she is being seduced by a polished expert witness into accepting propositions which are in fact not supported by the evidence, but I am satisfied that this is not the case here.

Reliability of the sampling and extrapolation process undertaken by Cumbria

25.143 Overall, I accept the criticisms of almost every stage of the sampling process which are made in detail in the principal report of Dr van Liere.

25.144 I am satisfied that there were a number of errors in the development of the process for choosing the samples in this case. In summary, although there were 1,706 separate works instructions involving patching issued during the course of the contract only 544 works instructions were identified and only 116 works instructions were available for selection. Only

approximately 7% of the total number of works instructions and the total number of patches were available for selection.

- 25.145 There was an initial bias in the selection of the initial samples, both by year and by area. Worse than this, was the decision to focus on the patches laid in the first 3 years in heavily trafficked roads. This is an example of deliberate clear bias. It is difficult to say to what extent actual bias was introduced, but in my view there is clearly a risk that it was.
- 25.146 There were also a number of patches which Cumbria was unable to locate, with no explanation as to why: see paragraph 6.119 of Dr van Liere's principal report.
- 25.147 There was a departure from the protocol as regards the number of patches per works instruction to be inspected, as I have already said.
- 25.148 In December 2013, when Professor Walsh and Mr Hodgen were involved, there was an ideal opportunity to assess the process and start again, addressing the criticisms made by Amey's witnesses in the pre-action protocol process, but that was not taken. Although Cumbria is entitled not to waive privilege in relation to the advice given by these 2 experts, the end result is that there is a lack of clarity as to the further inspection process and, importantly, no material to justify a submission that this process remedied the defects in the previous process. Indeed, there was no recognition as to the dangers of combining separate sampling exercises undertaken at separate times with separate processes. If the decision had been taken to start from scratch in December 2013, it might have been possible to use the previous sample as some rough control measure. But what was not appropriate, as Dr van Liere said in cross-examination, and as I accept, was to combine them together.
- 25.149 There is no evidence to show that any process was used to select the samples from within the cohort available for selection. I have already referred to the departures from the protocol in terms of the numbers inspected from each works instruction, and the consequences, both in terms of the obvious outlier but also those which are not so obvious.
- 25.150 It appears that a total of 648 patches were visually inspected. There is, as I have said, a real difference between the quality of some of the inspections, so that whilst I am generally complimentary about Mr Johnston's inspections, I am far more critical of those of Mr Savage. That feeds through into the reliability which can be placed on the results of the sampling process.
- 25.151 It appears that not every patch which was visually inspected was also core tested, even though that was the intention. It appears that only patches found to have visible defects were cored. Mr Hodgen says in his supplemental report that the explanation is that those patches which had subsequently been surfaced over were not core tested. If that is correct then, as Dr van Liere says, that introduces a source of actual bias, since in the absence of evidence that these patches had remedial works undertaken to them before being surfaced over, they are patches which are extremely unlikely ever to have remedial works undertaken within their surfaced life, so that to exclude them from coring introduces bias.

- 25.152 It is difficult to have confidence in the process for selecting samples for inspection, because the results indicate a skewing of samples, there being proportionately fewer samples for the earlier years and proportionately fewer samples for certain areas of Cumbria, as Dr van Liere states in his report, updated in his supplemental report as regards the areas. This is particularly significant since, as I have indicated in my review of the chronology, it is clear from the contemporaneous documentation that there was significant variation as between the different years and the different areas as to the extent of recorded complaints.
- 25.153 This raises the question as to whether it is safe to extrapolate at all in relation either to the early years of the contract or to the areas where there are a limited number of samples. Mr Hodgen says in his report that it is safe, because there is no reason to think that they are any different. However that view, in my judgment, is no more than wishful thinking, and not appropriate in the context of a statistical exercise. The argument is subject to cogent criticism by Dr van Liere in his report, who maintained that criticism under cross-examination, and I accept it. It is consistent with the absence of any significant contemporaneous documents of complaints in the early years, in circumstances where, apart from the first sampling in relation to 190 pen, a deliberate decision appears to have been taken not to undertake widespread sampling of patches undertaken in these early years almost certainly, I am satisfied, because of the service life credit issue.
- 25.154 It was put to Dr van Liere in cross-examination that there was no reason to think that there should be any difference between the quality of the patching work done in the early years when compared with the later years, in the sense that there was no change either in the contract specification or in the basic circumstances in which the work was carried out. However that itself is inconsistent with Cumbria's positive case, which is that towards the end of the contract, once Amey realised that it was not going to secure a contract extension, it lost interest in the quality of its works, so that the quality of patching decreased. Moreover, Dr van Liere's evidence was that from a statistical perspective, if it becomes clear that there is a variation, then that should be factored into the extrapolation calculations, rather than adopting a globalised figure, unless some satisfactory explanation can be found, which he considers – and I accept – was not the case here.
- 25.155 As to the areas, Mr Hodgen appeared to accept in cross-examination that it was very difficult to say anything meaningful about the 4 districts where an extremely small number of patches overall were tested. As before, it is not satisfactory simply to adopt a globalised figure, without there being some satisfactory explanation for the variation which would justify that course being taken and which again Dr van Liere considered – and I accept – was not the case here.
- 25.156 The most significant problem of all in my view arises from the decision to exclude the pre-surface dressing patches, for the reasons I have already given. In paragraph 115 of its closing submissions (page 355), Cumbria refers to Mr Hodgen's evidence that there are 3 reasonable options where patches cannot be found for reasons which are unavoidable, which are to assume either that: (1) all patches that cannot be found are bad patches; (2) all patches that

cannot be found are good patches or, (3) all patches that cannot be found are subject to the same error rate would apply as for those that can be found, see paragraphs 4.14 – 4.15 of Mr Hodgen’s supplemental report.

25.157 Whilst that begs the question as to whether it really was unavoidable that the pre-surface dressing patches could not be found, in any event in my view Mr Hodgen has asked the wrong question and chosen the wrong option, namely number (3). The right question, in my judgment, is to focus not on whether or not patches are good or bad, but on whether or not Cumbria has incurred or is likely to incur remedial expenditure on them within their service life due to their being defective as a result of breach by Amey. The correct approach, in my judgment, would have been to follow the original approach suggested by Professor Walsh, which is that to assume that all pre-surface dressing patches are good patches, in the sense that they are patches where the only sensible conclusion on the balance of probabilities on the evidence adduced is that they have not been the subject of, and will not be subject to, remedial works at any time within their service life.

25.158 In paragraph 117 Cumbria takes issue with the suggestion that the decision to exclude pre-surface dressing patches was for convenience. However, that is clearly wrong; the evidence is that the reason why they were excluded was because of the difficulty in locating the patches under the surface dressed roads, with no attempt made to explore the consequences of that decision in terms of its effect on the reliability of the sample.

25.159 In paragraph 118, Cumbria suggests that there is no difficulty, either because the biases are small, in which case they may be ignored, or are large, in which case they cancel out so are irrelevant. However it seems to me that there is no basis as regards pre-surface dressing patches for drawing either conclusion. In fact, on the evidence, I would conclude that the biases are not only extremely substantial, given the percentage of total patches comprising pre-surface dressing patches which were therefore not inspected, but also not self cancelling, for the reasons I have given, when one asks the correct question.

25.160 In paragraph 120, Cumbria says that it is effectively common ground that patches cannot be inspected once they have been surface dressed. But again, in my judgment, if one asks the correct question that misses the point, ironically given that it was the point first noted by Cumbria’s first expert, Professor Walsh, which is that the purpose of inspecting patches which have been surfaced over is to see whether or not the quality of the finished road is adversely affected by substandard quality patching. Moreover, the first example given, the report at E/67.3.6, in fact identifies edge fretting, even though the patch was surface dressed.

25.161 It was suggested to Dr van Liere in cross-examination that his approach would require an unrealistic quantity of patches to be sampled, as much as 80% of the total. He disagreed, saying that in his view, with a sensible strategy determined in advance, no more than around 2,000, and possibly no more than 1,000 patches would need to be sampled, compared with the 638 which Cumbria sampled. Although it was said that this was unrealistic, or impracticable, I am inclined to accept Dr van Liere’s opinion, albeit acknowledging that it was not based on any detailed investigation or analysis. When compared to Mr Hodgen’s assumption that Dr

van Liere's approach would require 80% of the patches to be sampled, it appears significantly more realistic to me, because Mr Hodgen's assumption was that Dr van Liere would require an equivalent number of patches to be sampled as Cumbria had sampled overall in relation to every potential subset within the whole population. However Dr van Liere's approach was that what was key was the planning and implementation of the sampling exercise, rather than the number within the sample, and I accept that evidence. Furthermore, in answer to a question from me he accepted that if there had been a well planned and implemented sampling exercise, which had nonetheless produced too few samples within a given subset, then consideration would have had to be given as to how to address this, and one option would have been to undertake a further, targeted, sampling exercise within that subset, to be used either as a cross check, or in combination – if that was justified. That seemed to me to be a sensible approach, and again I accept it.

- 25.162 In short, for the reasons given, I accept the criticisms of Cumbria's case on extrapolation as made by Dr van Liere and as rehearsed in Amey's closing submissions at section (E).
- 25.163 Cumbria submitted, in paragraph 102 of its closing submissions, that even if the sampling exercise conducted was such as to give rise to a risk of bias, that could be addressed by appropriate weighting procedures. I accept, as did Dr van Liere in cross-examination, that this is permissible in principle. However the fundamental flaw in this argument, and in Mr Hodgen's evidence, is that neither Mr Hodgen nor Cumbria ever really grappled with the issue of bias and, hence, never really suggested any appropriate basis by which some recognised weighting procedures could be applied to the bias factors in this case to arrive at a defensible outcome. As Dr van Liere said, the problem with the years and the areas could, in principle, be corrected by reweighting the data, but that is something which has never even been attempted by Cumbria. Although Dr van Liere was criticised in cross-examination for failing to engage with Mr Hodgen or to suggest some acceptable procedures by which any defects in Cumbria's sampling exercise could be corrected, in my view Dr van Liere cannot be criticised for declining to speculate in circumstances where neither Cumbria nor its expert was prepared to proffer any suggestions as to what could or should be done.
- 25.164 Cumbria's alternative approach was to invite me to accept that the sample is reasonably representative, albeit subject to some potential bias factors, which can be addressed by adopting some percentage discount. However, in the complete absence of any evidential basis which would allow me to make any assessment with any reasonable confidence in its accuracy, in an area where the court has no recognised expertise or familiarity with the issues in play, it seems to me that it would be unacceptable for me to do so. Furthermore, given my substantial concerns as to the consequences of omitting the pre-surface dressing patches, if I was asked to do this I would find it difficult to do so in a way which did not involve rejecting the whole extrapolation process.
- 25.165 Cumbria also suggests (paragraph 134 of its closing submissions, page 359) that it was open to Amey to demonstrate, by reference to its own quality assurance documentation, that the sample results were wrong or that the extrapolation of sample results would give an inaccurate result, and that its criticisms of Cumbria's sampling process should be considered

in the light of its failure to do so. I understand, and accept, the submission that a criticism of the results of the sampling exercise should be considered in the context of what documents ought to have been made available by Amey as regards the quality of those works, but I do not understand or accept the submission that its quality assurance documentation would be relevant as to the extrapolation process. Indeed, since Cumbria's positive case, at least as regards its visible defects claim, is that these defects were not made the subject of the contractual defects remediation procedure, and thus not included on the defects sheets, it is difficult to see how it can claim that a correct implementation of Amey's own quality assurance documentation would have revealed not just defects within the sample relied upon by Amey but a widespread and endemic pattern of defects within its patching across the years and across the areas. In my view, Cumbria's extrapolation exercise has to be assessed in the absence of contemporaneous documented evidence, whether by way of defects sheets or minutes of meetings or similar, to the effect that Amey's patching works were endemically defective.

25.166 Finally, Cumbria suggests that Amey should not be entitled to criticise the sampling and core testing process undertaken by PTS, having failed to undertake visual inspections or core testing itself or in conjunction with Cumbria, despite being invited to do so. However in my view there is no substance in this argument. Even if Amey ought to have investigated, or cooperated in investigating, and even if it could be said that Amey was obliged under the contract to have done so, it would not follow in my view that Amey would then in some way have been debarred from arguing that the results of those investigations could not properly be used to support an extrapolated damages claim of the kind now advanced by Cumbria. Furthermore, as I have already held, Amey was not obliged to undertake core testing of patches in any event.

25.167 In conclusion, in my view Cumbria has failed to demonstrate that the sampling exercise undertaken on its behalf in this case is a sufficiently reliable exercise to justify the court in making the finding as against Amey that there was a systematic and endemic failure in its performance which has led to a situation where Cumbria has either already undertaken, or will reasonably need to undertake, substantial remedial works to a large proportion of the patches laid by Amey so that it is entitled to recover as damages the very substantial sums which are claimed. Cumbria set itself the ambitious target of constructing a very substantial edifice of a claim, but failed at every stage to undertake the necessary groundwork to support it.

Quantification of the extrapolated claim

25.168 Although strictly unnecessary given my finding that Cumbria's case fails on extrapolation, I should for completeness set out in short my opinion in relation to the issues in dispute as regards quantification.

25.169 Cumbria has quantified its claim for remedial works by reference to the cost of the work in question, multiplied by a unit rate cost derived from rates quoted by the relevant framework contractors, to which is added an amount for traffic management and for preliminaries. In the case of patch replacement the cost is arrived at by taking the patch size in question and adding

a strip or “collar” of existing road surface around that patch. In the case of edge repair it is arrived at by taking the edge length in question.

- 25.170 Although the quantum experts have very helpfully agreed the majority of costs on a figures as figures basis, there are some significant disputes between the parties and the quantum experts as to how these remedial costs should be ascertained.
- 25.171 Amey criticises Cumbria for adopting an approach of grouping the patches into various size groupings, and then taking the mid point within that grouping as the assumed average size of each patch within that grouping to ascertain repair costs. Mr Dale was cross-examined on the basis that it would have been far more accurate to assess the total area said to be defective as a proportion of the total area surveyed, assess the total cost of remedial works in that area, and then apply the resulting percentage to the total area of patching undertaken. Although this does appear to be a more logical approach, whereas Cumbria’s approach makes what appears to be an unfounded assumption that the mid point within the grouping would be the average size of each patch within the group, in the absence of hard evidence that it makes a significant difference to the eventual outcome either way I do not think that Cumbria’s approach is so unreasonable that it should not be adopted, in the absence of an alternative calculated approach from Amey.
- 25.172 Amey also criticises Cumbria for adding the collar to all of the patches. I accept Amey’s criticism. The justification for adding the collar appears to come from Mr Robinson, who does not, in my view, either have the appropriate qualifications or expertise or, in any event, detachment to give reliable evidence in this regard. It is dealt with by Professor Knapton in only the most fleeting of terms in his principal report at paragraph 4.48 (page 51). In my view it takes no account of the variation in sizes and condition of the patches so, for example, whilst I accept that there may be some larger patches with adjoining surfaces in a poor condition, where it would be necessary to provide a collar to ensure a good join between the new patch and the existing road, there is no basis for adopting the same approach in the case of a small patch set in a good quality road. Thus, I would not allow Cumbria to add a collar in all cases and, in the absence of a proper evidential basis to make some assessment as to the percentage in which it would be appropriate to allow a collar, would allow it in none.
- 25.173 There is a substantial disagreement as to whose rates should be used. Cumbria contends that the contract mandates that neither its own direct labour organisation (DLO) rates, nor Amey’s rates, should be used. It relies upon clause 32.1 of the highways special conditions, to which I have already referred at paragraph 2.26 above, and submits that the reference to “other people” means that it is not appropriate to use either its DLO rates or Amey’s rates. I am unable to accept this argument: (i) first, because I am quite satisfied that clause 32.1 is not pleaded as having, nor does it have, any application to this claim, which has nothing to do with notified defects; (ii) second, because as I said in paragraph 2.26 above there is no basis for applying that clause, in which there is a natural assumption that in the circumstances applying there the overseeing organisation will assess the costs of having works carried out by a third party, in circumstances where Amey ought, but has failed, to have undertaken those works itself, to the facts of this schedule 2 visual defect claim.

- 25.174 Even if I was wrong about that, clause 32.1 does not entitle Cumbria to select rates provided by one of its framework contractors, in circumstances where it does not intend, and never had intended, to use those third party contractors to carry out the vast majority of remedial patching works in circumstances where, as I have said, the evidence is that insofar as remedial works have been or ever will be done it will have been done or will be done by the DLO.
- 25.175 Given that it is the DLO who has carried out, and will continue to carry out, any remedial patching works which are in fact undertaken, the obvious conclusion is that it should be the DLO's rates which are used. However, as I have said (paragraph 6.56 above), Mr Robinson's evidence is that Cumbria is unable to ascertain the DLO's costs because Cumbria does not record them in such a way as would enable it to do so. In my view this is a most unsatisfactory and surprising state of affairs. I am surprised, given the significant time and resources which Cumbria has expended on this case, why it could not have produced, using the expert evidence available to it, a sample patch cost based on its DLO costs. After all, as Ms Fallon said in her second witness statement at paragraph 13 the decision not to extend Amey's contract was taken on the basis of a recommendation that "a value for money comparison between an external core service provider and an internal core service provider should continue to be developed", in circumstances where "considerable work by council staff on costing each option" had been undertaken (paragraph 16). I also note that when Mr Robinson wished to do so, he was able (paragraph 118 of his second witness statement) to locate an order placed with the DLO for pre-surface dressing patching and to obtain information from Cumbria's finance department to the effect that Cumbria had "spent £36,533.43 on this pre-surface patch work". It is difficult to see how such a precise figure could have been provided if records were not kept by Cumbria to allow this information to be provided on request. Whatever the true position may be, I have no doubt that it is not open to Cumbria to seek to use its own failure to provide information as to the actual costs which it has incurred, and will incur, in order to justify inviting the court to quantify damages by reference to the rates of a framework contractor which it has not used, and will not use.
- 25.176 Moreover, as was put to Mr Dale in cross-examination, it is quite clear that the rates derived from Hanson's tender, which Cumbria has used, are substantially higher than those derived from AI and from those tendered by Amey. Although Mr Dale did make the point that this was not true across the board, so that Hanson's rates for larger patches were the same, or even less, than Amey's rates, he also had to accept in cross-examination that he had not seen the full documents upon which the framework contractors tenders or subcontracts were based. This would be particularly relevant if the tenders were priced on the basis of large scale pre-surface patching and surfacing works, with very little patching only works. It would be perfectly natural for the framework contractors to approach their tender in this way if, as seems not unlikely, they were aware of Cumbria's decision to use its DLO for the majority of separate patching repairs. Furthermore, unlike both framework contractors, Amey's rates were inclusive of traffic management which, as I have said, in many cases is a substantial, if not the most substantial, part of the claim.

25.177 As Mr Streatfeild-James put to Mr Dale in cross-examination, what is clear is that even though Amey's patching rates were low, and even though Amey was prepared to offer a further discount on those rates to secure a contract extension, nonetheless Cumbria concluded that it was in its own economic interests not to extend Amey's contract and to do the patching works itself, as opposed to using its framework contractors to do so. In the circumstances, the obvious inference is that Cumbria was fully aware that its own DLO patching rates would be significantly less than those of its framework contractors; moreover there is no basis for thinking that its own DLO patching rates would be any higher than Amey's contract patching rates.

25.178 In the circumstances, I am satisfied that the most appropriate rates to have used would have been Amey's patching rates as they were as at the end of the contract. Whilst I accept that Cumbria may complain that these were discounted from the rates originally included in its invitation to tender, and that there is also some evidence that Amey's patching rates were low anyway, they will have increased in accordance with RPIx over the duration of the contract, and in any event on balance I am satisfied that Cumbria cannot sensibly complain about this result, given its own failure to provide satisfactory evidence of its own DLO rates or a properly satisfactory explanation why not.

25.179 It follows from that decision that there should be no additional allowance for traffic management, since the quantum experts have agreed that if Amey's rates are adopted they include traffic management already.

25.180 If that had not been the case, then I would have allowed the flat rate of 3.71% agreed between the experts as a reasonable rate, since I do not accept that it is reasonable for Cumbria to claim the cost of its bespoke traffic management arrangements reached with the framework contractors. That is because in many cases the traffic management claim is substantially greater than the actual costs themselves, as was demonstrated by the examples put to Mr Dale in cross-examination. In my view the example of a half hour repair to fix a small patch, where substantial traffic management costs were applied mechanistically by whoever was responsible for putting the quantum claims together, without reference to the actual conditions, was quite unrealistic. Cumbria had allowed for a fully signed traffic management scheme, as compared with Amey's allowance in relation to small roads for either using a simple stop/go sign to manage the traffic until the work was done or, if that was not practicable, simply to close the road for the 30 minutes required, which is not unrealistic in the case of a typical small lightly trafficked rural lane in Cumbria. In some cases, Cumbria had included for a full formal road closure process in such cases, contrary to the basis upon which Amey had proceeded in its tender. It was quite clear that Mr Dale was extremely uncomfortable about the way in which Cumbria had put together this aspect of its claim which explains why he was extremely receptive to the suggestion of agreeing an alternative percentage addition approach instead.

25.181 As regards the claims for inlaid crack repairs, it appears that the only real issue is as to whether or not Cumbria should be entitled to claim for a full inlaid crack repair or only for over banding. In my view there is no justification for insisting on a full inlaid crack repair

where over banding would produce a perfectly acceptable solution from a technical perspective, which I have no doubt it would in the vast majority of cases. In cross-examination Ms Sykes did raise a question as to whether or not that would be satisfactory in terms of the enhanced risk of skidding on over banding, but I do not consider that this can be a genuine obstacle in the overwhelming majority of cases, if indeed in any cases, in circumstances where it is clear that overbanding was, and still is, regularly used – and sanctioned to be used – on patch and surface edges both in Cumbria and throughout the UK.

25.182 Finally I turn to the service life issue. As I have already said, Cumbria cannot seek to avoid the consequences of its existing pleaded case, where this concession is made and where its application to amend to withdraw the concession was refused. It follows that if I had to assess damages on the basis advanced by Cumbria the concession should be applied, but on the basis of a 6 year service life (see paragraph 25.37 above) rather than an 8 year service life, which would in itself have had a major impact on the valuation of the claim.

25.183 A further question arises as to how this service life discount should be assessed. The service life begins, of course, at the point when the patch is completed. The pleaded case as to the point to which the discount is calculated is a little obscure. It would appear from paragraph 29 of attachment E to the Quantum report attached to schedule 2 that the relevant date is taken to be the midpoint of the financial year 2013/14, namely 30 September 2013. That, it would appear from paragraph 144 of the reply to defence to counterclaim, was understood by Amey as having been selected on the basis of the date when the claim was first issued to Amey. Amey's pleaded case (paragraph 554 of the amended defence to counterclaim) was that the appropriate date should be 30 September 2014, being the time when it contends that Cumbria presented the claim with sufficient particularity to enable it to understand the case as advanced. In response to that, Cumbria appeared to suggest that in fact the relevant date could be said to be even earlier than it had pleaded, namely the date of inspection (paragraph 144 of the reply to defence to counterclaim). During the course of the trial, Amey went further in the opposite direction, submitting that the appropriate date should be the date of trial, in which case many of the claims advanced would be very significantly reduced if not completely extinguished.

25.184 Since Cumbria does not seek to uphold its service life concession, it is rather difficult what to make of these competing arguments. I infer that Cumbria's original argument must be that the date of notification was when the loss crystallised, and that Cumbria's alternative argument is that the date of inspection was appropriate on the basis that this is when the claim became known to it and, in that sense, could be said to have crystallised. However in my view the more appropriate way to address this issue is that if Cumbria accepts, as it does in its pleaded case, that each patch has a service life, then by making a claim for the full cost of replacement or repair at a point along the continuum between the date it was laid and the end of the service life, Cumbria is required to give a credit for the fact that at the point of replacement or repair one is getting the benefit of a new patch or a newly repaired patch, with the benefit of a new service life, for an old one with a reduced service life. That approach seems to me to be consistent with the principles which ought to be applied in a case such as the present, and

which I have taken from the authorities, particularly the Voaden case to which I have already referred.

- 25.185 In the absence of evidence that Cumbria has undertaken any of the actual replacement or repairs for which it contends as at the date of trial, it seems to me that Amey is right in principle to say that the service life discount should run up until the end of the trial, because Cumbria has still had the benefit of the service life of each patch throughout that entire period. Whilst I am aware that in some cases some surface dressing or similar has been carried out, that would not have assisted Cumbria insofar as it was nonetheless seeking the full cost of replacement or repair. Insofar as I have already found that in fact Cumbria's claim would be limited to the cost of a reasonable contribution to that as a reasonable remedial scheme, then in principle the service life credit should run to the date when that surface dressing was undertaken.
- 25.186 It was suggested to Mr Dale in cross-examination that if the date of trial was the appropriate date, then the claim would be reduced to a "tiny" sum, which would appear to follow from the fact that over 4 years has now elapsed since the last patch was installed. If I had found for Cumbria I would have required the claim to have been recalculated on the basis of a 6 year service life with the end date being the date of judgment in order fairly to reflect the service life credit which Cumbria had pleaded and to which in my view Amey would have been entitled. If, on the figures, that would have reduced the claim to nothing or virtually nothing, that would not in my view indicate that the result achieved was unreasonable, but would simply be a reflection of the fact that Cumbria bargained for patches with an average 6 year service life and has not, despite the allegation of widespread or systematic defects, undertaken the replacement or remedial works which it contended were reasonably required within that service life.

Cumbria's new alternative arguments

- 25.187 In paragraph 199 of its closing submissions Cumbria introduced an alternative claim based on a reduction in prices as opposed to a cost of repair. It would appear that Cumbria is inviting me to make an award based on Amey's rates, but without any allowance for service life discount. It would appear (paragraphs 141 – 143 of the closing submissions) that the basis for this argument is that either clauses 32.2 and 49.1.2(c) apply (this is the compensation event approach, to which I referred at paragraph 2.26(v) above) or clause 33.1 applies (this is the voluntary approach, to which I referred in paragraph 2.26(vi) above).
- 25.188 I am satisfied that it is not open to me to entertain this alternative case, being one which is neither pleaded nor advanced at trial prior to closing written submissions. Even if it was open to me to entertain it, I would not have accepted it, for a number of reasons. First, because as I have already held (paragraph 2.27 above) I am satisfied that these clauses can have no application to non-notified defects. Second, even if they could, clause 32.2 does not apply, because it cannot be said that it is "impossible" to correct the defects of which Cumbria complains. Third, even if clause 32.2 applies, clause 49.1.2 only applies where the compensation event is a change to a works instruction or a correction of an earlier

assumption. Finally, clause 33 only applies if the parties agree that it should. In summary, these are ingenious, but ill founded, attempts to circumvent the difficulties which Cumbria faces in seeking to get around the service life discount concession, and I reject them.

25.189 As a final argument, Cumbria suggested at paragraph 201 of its closing submissions that I could adopt a percentage reduction along the lines suggested by Professor Knapton in his report. That, however, was also a case which was neither pleaded nor advanced at trial prior to final submissions, and I do not consider it fair to allow Cumbria to advance such a case at this late stage, even if I was satisfied that it had merit, which I am not.

26 **(2) Work not done**

26.1 The pleaded case is based on a comparison of what should have been provided with what Cumbria says was actually provided. There are 3 separate sub claims, the first is the slurry seal claim, the second is the edge sealant claim and the third is the patching thickness claim. All of them are made on the basis of extrapolation.

26.2 In schedule 2 they are clearly pleaded as restitutionary claims; see for example paragraphs 108, 109, 117 and 118 in relation to edge sealant. However both in its written opening (paragraph 724) and in its voluntary further particulars dated 16 February 2016 (paragraphs 11 and 12) Cumbria made it clear that it was advancing its claim on the basis of breach of contract leading to diminution in value as opposed to restitution. In paragraph 61 reliance was placed on clauses 32.2 and 33 of the highways special conditions. However Amey submits that these clauses are irrelevant, being part of the defects notification and correction procedures which, as Cumbria accepts, was not followed in relation to these schedule 2 claims.

26.3 As I have already held in relation to the visual defects alternative claim (paragraph 25.188 above) clause 33 cannot apply, since it only applies where the parties agree that it should. Furthermore, clause 32.2 cannot apply, for the same reasons as given above. In particular, I do not think it can be said that it is not “possible” to take up and relay a patch where it is, for example, 1mm too thin, even though I agree that it would be something which any sensible highways authority would be extremely unlikely to wish to do. Furthermore, it cannot be used, in my view, as if it were a clause stipulating how a claim for damages for breach of contract generally is to be arrived at, even in relation to non-notified defects.

26.4 In its opening submissions, Amey contended (paragraph 474) that the starting point for a claim for defective work is for the cost of reinstatement; that in the alternative damages for diminution in value may be awarded, but the possibility of awarding restitutionary damages for the benefit in terms of the element of the price obtained by the contractor which represents his non-performance had been held by the Court of Appeal to be one which is not available. Reliance was placed upon the analysis in McGregor on Damages (19th edition) paragraphs 14-021 and following of the decision of the Court of Appeal in WWF World Wild Life Fund for Nature v World Wrestling Federation Inc [2008] 1 WLR 445.

- 26.5 However it appears both from McGregor and from Chitty on Contracts (32nd edition) paragraphs 26 – 039 and following that: (1) there can be no objection to awarding an employer substantial damages against a contractor for diminution in value representing the extent of his non-performance, even in circumstances where the employer cannot point to any specific consequential loss suffered by him as a result of the non-performance in terms, for example, of there being a reasonable need to undertake remedial works; (2) in appropriate circumstances, the process of ascertaining the diminution in value may involve using either the cost of providing the works or the contract price as the best evidence of that value – see Chitty at 26 – 041, referring to the observations of Bingham M.R. in White Arrow Express (1995) (unrep) and the subsequent observations of Stadlen J in van der Garde [2010] EWHC 2373 (QB). It also appears that, even taking into account the observations of Chadwick LJ in the WWF case, there is no good reason why restitutionary damages should not be awarded in a case such as the present, where Cumbria is alleging what is, in substance, a “short delivery”.
- 26.6 In short, if Cumbria is able to establish its case on the facts in relation to work not done, then my view is that it is permissible as a matter of law to award damages on the basis of the value of the work not provided.
- (1) Slurry seal
- 26.7 The pleaded case is that all patches should have been slurry sealed, where that was what was instructed on the relevant works instruction, which entitled Amey to extra payment. Cumbria contends that a number of those patches where slurry seal had been instructed were not in fact slurry sealed, and that the percentage of the patches sampled which did not have slurry seal when they should have had is extrapolated to the total which should have been slurry sealed to produce a claim with a total value of £251,585.27, which appears to be over 50% of the total paid by Cumbria for slurry seal over the duration of the contract.
- 26.8 By reference to Cumbria’s closing submissions (page 424) the claim is now said to be £227,103.80, based on 115 samples said to be non-slurry sealed out of a total of 183. Prior to extrapolation, the claim based on the samples alone amounts only to £1,176.43.
- 26.9 Mr Griffiths states in his supplementary report (paragraph 5.61) that 138 examples from the original sample came from only 27 separate works instructions.
- 26.10 Amey seems to have raised, as a preliminary point, that it was for Cumbria to prove that slurry seal was not only ordered on a works instruction but also that Amey had applied for and been paid for slurry ceiling in relation to that works instruction, and that this exercise had not been done by Cumbria. However in my view if Amey had wanted to raise as a positive case an argument that even though instructed there had been a subsequent agreed variation so that the work had been omitted and not claimed for or paid, then that was something which it should have raised and established, which it has not done.
- 26.11 Nonetheless it would appear inherently unlikely that on such a regular basis as contended for by Cumbria, apparently over 50% of the time, slurry seal was ordered but not laid, and that

no-one appreciated at the time that it had not been done. As with other elements of the defects counterclaims, there is no contemporaneous documentary evidence of this being raised as a persistent issue.

- 26.12 In his principal report Mr Griffiths raised an argument that the slurry seal applied by Amey only carried a 2 year performance guarantee, and a further argument to the effect that it might have been worn away after no more than 1 winter after being applied. I was not impressed by his latter point, since as Professor Knapton said one would expect, if that was the case, to see evidence of it being worn away in patches, rather than uniformly present or uniformly absent. In my view his better point was that it was very difficult to say whether or not, after 2 years, that if slurry seal was not present it was possible for Cumbria to assert with confidence that the only probable explanation was that it had not been laid originally, rather than that it had simply been worn away. That is particularly so in my view where – as I will explain – the analysis had to be undertaken from photographs, which I regard as wholly unsatisfactory.
- 26.13 It appears that the claim was originally made as a result of an analysis by some unidentified person within Cumbria’s team of the photographic information provided by PTS. The visual inspection sheets do not consistently record the presence or absence of slurry seal, not surprisingly since that is something they were not asked to do so and had no obvious reason to consider, let alone to record whether or not if slurry seal was absent that was because it had never originally been applied, or had simply been worn away given the age of the patch concerned.
- 26.14 In the absence of any direct evidence from any focused physical inspection by anyone, the only evidence available was that of the photographs. Professor Knapton had been asked to consider this, and had initially supported all of the 1s which he had seen. He had looked at the colour and the texture in order to form his opinion. However his clear evidence in his report that slurry seal was either fully present or not at all in my view was inconsistent with: (1) his subsequent explanation that as slurry seal was worn away it would become more difficult to distinguish from the surrounding asphalt; (2) his subsequent acceptance that in at least 1 case there was evidence of significant erosion, but that slurry seal may have been applied once; (3) his subsequent acceptance that if slurry seal had been painted on, it would be apparent and easily visible, whereas if it had been applied more sparingly, that would not be so easy to detect. In short, it is not immediately apparent to me that it is a relatively straightforward task to examine a road surface, let alone a photograph, after some years have elapsed and determine with confidence whether or not it had been slurry sealed at the time the patch was laid.
- 26.15 His cross-examination on a number of individual claims revealed a number of individual errors, including errors which he had not previously discovered in his review, for example: (1) claim 40, where it is clear that the claim is based on analysis of the wrong photograph, where the right photograph reveals slurry seal to be present; (2) claims 5 and 6, which he agreed showed slurry seal being present whereas the claim indicated that no slurry seal was present; (3) a series of patches along a road in Carlisle, where on his analysis some were slurry sealed and others were not, which seems to me to be intrinsically unlikely, especially where the

contemporaneous works instruction records slurry seal as having been applied. When asked about that, Professor Knapton speculated that it was possible that Amey had simply run out of slurry seal halfway through the job, but that seemed to me to be no more than speculation. Professor Knapton accepted that it could be “quite tricky” to distinguish the presence or the absence of slurry seal from photographs alone; this was demonstrated by the final example put to him, where he identified a patch as having been slurry sealed but whereas in fact it was claimed as not having been slurry sealed.

- 26.16 In cross-examination of Mr Griffiths, Mrs Pigott made the observation that Amey had produced no documentation to establish that slurry seal had been applied in the areas in question, for example by way of daily record sheets, delivery notes, or the like, which is a fair criticism in my view, although she was unable to identify a particular daily record sheet which did record slurry seal as having been applied; the example she produced referred to a product known as Leotak, rather than Leopave, which is the relevant material.
- 26.17 Mr Griffiths view was that he did not believe anyone could conclusively identify the presence or the absence of slurry seal from a visual inspection of photographs alone. I accept this, as being consistent in the end with what Professor Knapton was driven to concede, and what in any event I am satisfied is the case. That, in particular, is the case in relation to slurry seal where the PTS inspection was undertaken more than 2 years (or 2 winters, if less) after installation.
- 26.18 It follows, in my view, that Cumbria has failed to make out its case in relation to slurry seal. There is no basis for concluding that there was a widespread problem of slurry seal not being applied when Cumbria had ordered it and Amey had claimed for it. In the circumstances, I am satisfied that Cumbria has not made out its case as regards liability either by reference to its pleaded case or by reference to any evidence which would justify me in making some assessment of some lesser specified figure.
- 26.19 In any event, the claim would have failed on the basis of my conclusions in relation to extrapolation, which apply in the same way to this claim as they do in relation to the visual defects claim. Indeed, if anything the case is even stronger here because, as Mr Griffiths had said and Professor Knapton accepted in cross-examination, 100 of the 138 slurry seal claims made come from the Eden area, by reference to a limited number of works instructions, which rather indicates that if there was a problem it is not 1 which on the evidence can be extrapolated on an area wide basis.
- 26.20 If the claim had been established on liability and extrapolation, then since the experts had agreed figures as figures, there would have been no dispute as regards the quantification of the claim. However, given the findings I have made, that does not arise.

(2) Edge sealant

- 26.21 Cumbria’s case is that the contract required edge sealant to be applied to all patch edges, but its analysis of the core testing carried out showed that it had not been applied in 254 cases out

of the 462 inspected. Cumbria seeks to extrapolate those findings to the totality of the patching works undertaken by Amey. The pleaded claim was £134,596.88; in its closing submissions Cumbria had revised the claim downwards to £46,591.59.

- 26.22 In his principal report Professor Knapton suggested (paragraph 4.70) that it was possible to identify from a visible inspection whether or not edge sealant had been applied. There was some debate whether or not this was correct; in so far as relevant I doubt that it is, especially since Professor Knapton had on at least one occasion apparently confused edge sealant with overbanding and, whereas I accept it may well be possible to see splashes of edge sealant on the surface if applied right up to the top of the joint, the absence of visible splashes does not necessarily mean that it has not been properly applied.
- 26.23 Cumbria's case is that it is possible to identify whether or not edge sealant had been applied from a visual inspection of the core test results. It relies upon the third (2010) edition of the Code of Practice issued under the New Roads and Street Works Act 1991: Specification for the Reinstatement of Openings in Highways which, under section NG6.5.2, refers to data sheets used to illustrate the results of edge sealant applications under different conditions, which themselves refer to the results of coring tests. However, this does not in my view provide authoritative support for the proposition that the presence or absence of edge sealant can definitively be established by visual inspection of subsequent core test results in all cases. In particular it would appear that the core sample referred to in the Code of Practice would have been obtained immediately after the work had been done. Moreover, it is not entirely clear whether the commentary is based on visual inspection, from which it is said that the presence or absence of edge sealant can be identified, or from the presence or absence of a good bond. I also note that in his supplementary report Professor Knapton says (page 29) that "the main evidence of the inclusion of edge sealant is the bonding of the patch asphalt to the surrounding asphalt", and the "edge cores ... show that ... the edge is performing poorly", the inference being that it is not the visible presence of edge sealant which is key, but the evidence of the presence or absence of bond. On the following page (page 30) he also agrees with Mr Griffiths that "adding the hot asphalt into the patch will remove physical evidence of the sealant". It appears that the visual inspection of the core samples is being used to identify the presence or absence of a good bond, from which an inference is sought to be drawn as to the presence or absence of edge sealant, rather than through direct observation of the presence or absence of edge sealant.
- 26.24 In cross examination of Professor Knapton he accepted that it was difficult to identify the presence of edge sealant if the coring sample had been taken from a poor planed edge. He also accepted that the fusing process would affect the visibility of the edge sealant. Although he believed the edge sealant should have been applied to a thickness of approximately 1 mm, Mr Griffiths considered in his supplemental report (page 24) that if applied at the contract rate the edge sealant would have been only approximately 0.33 mm thick, and it appears that PTS were looking for a much thicker line of edge sealant of between 5 and 10 mm in thickness. Mr Griffiths was not challenged on this.

- 26.25 In short, I am far from satisfied that Cumbria has made out its starting point, which is that the presence or absence of edge sealant can easily be ascertained from a visual inspection of the coring test results alone, so that in any individual case it would be necessary to look at the individual coring test results with some care, to see what can be observed and whether or not it is only consistent, on the balance of probabilities, with the complete absence of edge sealant, as opposed to some other cause.
- 26.26 In that respect, in cross examination Professor Knapton was also taken to an example where it could be said that although insufficient edge sealant may have been applied along the base of the joint, it appeared to be present at the top of the joint, so that although Cumbria had contended that this was an example of a joint where no edge sealant had been applied, that was clearly wrong and, in reality, Cumbria's case was that the edge sealant had not been fully or consistently applied.
- 26.27 Whilst of course Cumbria may say that this was nonetheless an example of poor workmanship by Amey, that is a very different kind of claim from the one being advanced, which is a restitutionary claim or claim for damages for breach of contract leading to diminution in value on the basis that Amey did not apply any edge sealant at all in these patches and, hence, should not be entitled to any payment for the cost of applying that edge sealant. If, by comparison, the claim is for defective application of edge sealant, then it would be necessary to consider the impact of that state of affairs on the integrity and service life of the patch, what if any remedial works were reasonably justified, and at what cost. (For example, in cross examination Professor Knapton was taken to an example of a patch at Eurayulus Street, where the road had subsequently been micro asphalted over, so that it was unlikely that any remedial work to this edge would ever be undertaken within its service life.) Indeed, in so far as PTS had also reported a poor edge as well as the absence of edge sealant in the same patch, and insofar as that also formed the subject of a visual defects claim, there would appear to be duplication if both claims were advanced at the same time. In closing submissions Cumbria has failed to distinguish between a failure to apply edge sealant and a failure to apply it correctly (paragraph 378) and has failed to engage with the difference between the 2 types of claim.
- 26.28 In my judgment Cumbria has failed to prove its case that there is clear evidence from visual inspection of the core test results of a complete absence of edge sealant in the samples on which it relies.
- 26.29 It would have been open to Cumbria to plead and to seek to prove a case based on the absence of a bond, and to invite me to draw the inference that the cause was poor workmanship by Amey, either the partial or complete absence of edge sealant or some other defect in its application, that the absence of bond adversely affects the life expectancy of the patch or will lead to a need for repairs within its service life, and to claim damages on that basis, without duplication of its visual defects claim. That, however, would have been a very different claim from the one actually advanced, which is a much more ambitious claim advanced on the premise that in over 50% of all patches laid by Amey it simply failed to apply any edge sealant at all, so that Cumbria is entitled to repayment of the element of the price reflecting

the cost of applying edge sealant and which, for the reasons given above, in my view Cumbria has not established.

- 26.30 Cumbria's case on extrapolation also fails, for the same fundamental reasons as given previously. It is also worth noting that when Professor Knapton was cross-examined he accepted that there appeared to be a differing pattern in relation to the work done by the different gangs, so that he noted that patches with a good bond often appeared to be overbanded, whereas those without a good bond often did not, which is the sort of difference introducing the risk of bias which a proper representative sampling exercise would have needed to consider and address, but which Cumbria's sampling exercise failed to do.
- 26.31 Insofar as the quantification of the claim on the pleaded basis is concerned it is, as I have said, pleaded on the basis of an assessment of the cost element of the supply and application of the edge sealant. Details of Cumbria's revised calculation appearing in its closing submissions. I am prepared to accept Mr Dale's costings of this item, so that I would have been prepared to award Cumbria the revised sum claimed had I found for Cumbria on liability and extrapolation.
- 26.32 In short, however, this claim is not established.

(3) Patching thickness

- 26.33 Cumbria's pleaded case is that coring test results reveal that a modest proportion of type 2/1 and 2/2 patches (6.76% and 22.5% respectively) and a much higher proportion of type 3/1 and 3/2 patches (83% and 87% respectively) failed to meet the contractual patch thickness requirements, even after taking the contractual tolerance into account, which the paving experts now agree is 6 mm.
- 26.34 Cumbria contends that it paid Amey for patching in the mistaken belief that it had complied with its contractual obligations as regards the thickness of patching, so that Cumbria is entitled to the difference in restitution as money had and received or the difference in value as damages for breach. The claim is quantified on the basis of the percentage which were insufficiently thick, and the percentage shortfall in thickness, extrapolated in the same way as with the other claims, producing a total claim of £2,131,243.14. In closing submissions (paragraphs 335) Cumbria confirmed that the claim was reduced to £1,634,602.01 which reduction reflected, amongst other things, an agreement reached between Professor Knapton and Mr Griffiths that it was not appropriate to rely upon the results of coring samples taken from patch edges when undertaking this exercise, on the basis that they were an insufficiently reliable indicator of the thickness of patch across the whole of the patch.
- 26.35 In its closing submissions, Amey emphasised 4 particular points. The first was that this claim is inconsistent with the approach at the time, where a common-sense, pragmatic approach was taken as regards the valuation of individual patches taking into account any divergence from tolerance in thickness and the reasons for that. The second was that there was considerable doubt regarding the accuracy of the cores taken by PTS; in particular it was not clear that the

relevant British Standard had been complied with as regards the obligation to take 4 measurements per core, and damaged cores had been used when they should not have been. The third was that there was considerable disagreement between Professor Knapton and Mr Griffiths regarding the proper interpretation of the coring test results as regards the patch thickness. The fourth was that there was a significant issue as between the quantum experts as to the appropriate credit to be given for labour and plant which, on an extrapolated basis, resulted in a difference of approximately £500,000.

26.36 In its closing submissions Cumbria invited me to reject Mr Griffiths' criticisms of the coring test results and also took issue with Amey's reliance upon the alleged agreements reached at the time the patches were laid. Cumbria also sought to rely upon Amey's failure to disclose the results of the core testing which Cumbria contended that Amey was obliged to undertake. As I have said, since I do not consider there was any such obligation and since Amey had never suggested that it did core test patches, that argument does not assist Cumbria. In cross examination Mr Griffiths accepted that the thickness of a surface or patch could be ascertained by dipping records, undertaken during the course of the works, rather than by core testing which, as I have said, would have to be undertaken separately after the work had been done. However he also said that he would not have expected to see dipping records for patches, unless this had been specifically required as part of a contemporaneous audit, or unless undertaken as part of an ongoing dispute as to whether Amey was complying with its thickness obligations. There is no pleaded or other complaint that Amey was obliged to dip test patches, or to produce and retain records of such tests, given that Sector Scheme 16 applies only to surfacing work. In the circumstances I accept Mr Griffiths evidence and am satisfied that no substantiated complaint in relation to non-disclosure of records relating to patch thickness has been made out by Cumbria.

26.37 Professor Knapton was cross-examined in some detail as to the reliability of the core test results. It appears that where, as was often the case, the cores did not have a uniform depth, the measurement was taken to the least thick part of the base of the core. Although Professor Knapton sought to justify this approach by reference to the contract, it is clear that it is not justified by reference to the British Standard, which unambiguously states that damaged cores should not be used, that well defined boundary lines should be identified, and that 4 measurements should be taken around the core, with their position clearly marked, and an average used. There is no direct evidence that this was done. Professor Knapton accepts that the photographs do not show that 4 measurements were taken around each core, and there is no evidence that any averaging process has been undertaken. Professor Knapton was prepared to assume that PTS had complied with the British Standard because it was a UKAS accredited laboratory; however this assumes in my view that PTS understood that it was required to comply with the British Standard in the context of undertaking a forensic investigation where, as Professor Knapton said, it might be permissible to deviate from the British Standard. In his first witness statement all that Mr O'Farrell had said (paragraph 210) was that PTS had "extracted and marked following our normal procedures based on widely accepted national standards". However it is also clear from paragraph 98 of his statement that PTS did experience difficulties in core testing due to pressure of time and adverse weather conditions. Given that the discrepancies relate to measurements of around 1 mm, it is clear in my view

that any failure to adhere to the British Standard could have a significant effect on the accuracy of the measurements relied upon by Cumbria.

- 26.38 The problem, in my view, is that the core test results taken by PTS are being used to found the basis of a claim which they were never intended to be used to support when undertaken. As Professor Knapton accepted in cross examination there is a difference between a standard exercise to check the depth of laid material the day after, or at least within a short period from, the date the patch was laid, undertaken strictly in accordance with the British Standard, and a forensic investigation after the event, which might be required for any number of different purposes, and where it is important to instruct the organisation conducting the tests precisely as to what is required. There is no evidence that this happened here. That problem is compounded, in my view, with the fact that there is a real risk that PTS did not, given the time, weather and cost restraints they were working under, ensure that the coring process was undertaken in strict accordance with the British Standard.
- 26.39 Moreover, it is apparent that there are a number of cases where quite significantly damaged cores are being relied upon, again not in accordance with the British Standard.
- 26.40 In my view it is necessary to exclude from consideration all of those core test results where there is a real risk that the failure to conduct core tests in accordance with the British standard or the use of damaged cores might affect the reliability of the result. Whilst I recognise the force of Professor Knapton's point that the contract already allows Amey a margin of error, nonetheless it seems to me that insofar as there is a real risk of the core test results producing an inaccurate result I must give Amey the benefit of any reasonable doubt. Indeed Professor Knapton's approach in borderline cases was to do just that; for example not to treat a core test as a fail where it was only 0.5 mm out, or where the results of an edge core on the same patch appeared to show that the thickness was compliant.
- 26.41 Mr Griffiths accepted that there were 87 individual coring test results which appeared to show a potential lack of thickness out of a total number of around 200, so it would appear from paragraph 92 of schedule 2 to the counterclaim. Probably due to time constraints Mr Griffiths was not cross-examined in the same detail as was Professor Knapton about the detail of the coring and testing process. He was cross-examined on claim 66, one upon which Professor Knapton had previously been cross-examined, where Cumbria contended that the core thickness was 32 mm compared with a contractual minimum requirement of 34 mm (40 mm less the 6 mm maximum tolerance). His view was that it was difficult to be confident about the results, since the core appeared to have been broken off and was, in any event, a core with an irregular base. I agree with that assessment; in my view that is an example of a core test from which it is difficult to draw a clear conclusion, on the balance of probabilities, that the contractual thickness requirements was not met.
- 26.42 In conclusion, I do not consider that I can safely conclude that any number significantly in excess of the 87 accepted by Mr Griffiths failed to meet the required contractual tolerance. Whilst Amey would no doubt emphasise that even then Mr Griffiths only said that these 87 were potentially out of tolerance, given my overall assessment of Mr Griffiths that he was

somewhat reluctant to give a definitive opinion adverse to Amey where there was any credible prospect of arguing to the contrary, in my view a figure of around 87 is a reasonable assessment.

- 26.43 As regards Amey's argument that at the time agreements were reached on site, I accept that there will have been some occasions where the fact that the patch was laid to a depth less than the contractually required depth was observed and discussed between Amey and Capita and some agreement was reached either that Amey should be entitled to payment in full, because it was not its fault that it could not lay to the contractual depth, or alternatively some discount was agreed. However it is apparent that this could only happen if either Amey notified Capita or a Capita inspector happened to inspect at the time the patch was made. It is quite clear from the evidence in relation to Amey's patching thickness claim that this did not happen on a regular basis, not surprisingly since it would be very difficult, if not impossible, for a Capita inspector to be present every time a patch was laid, and it was not their function to undertake that sort of detailed role in any event. Equally, I have no doubt that Amey would have had no reason to have been assiduous about notifying Capita when the required thickness was not achieved. There is no documentary record of this having happened in any significant number of cases.
- 26.44 In short, I do not consider that Amey has established that this could amount to a defence in relation to anything other than a small proportion of the overall number of cases. The question is whether I have sufficient evidence to be able to make some rough and ready assessment of the number of occasions on which this happened or whether there is insufficient evidence to do so. In my view it would have been possible for Amey to have interrogated Siteman to seek to cross refer the patches the subject of this sample with the payment records to see whether or not any adjustment was made, or to have analysed the works instruction hard copy files to see if there was a record of a local agreement having been reached. Amey has not done so, nor has it provided evidence as to why it has not done so and, in the circumstances, I would not be prepared to allow any reduction on this basis if I had to decide the point.
- 26.45 It follows that I am satisfied that Cumbria has made out its case in relation to 87 of the patches in question, compared with the 132 asserted by Cumbria (paragraph 368 closing submissions).
- 26.46 However, Cumbria's case fails on extrapolation, for the same reasons as given for the visual defects claim. It seems to me that extrapolation is particularly challenging in relation to this claim, where it is not just a question of whether or not a patch within the sample is within or outside the required thickness, but the extent to which it is outside the required thickness which is significant, and where the risk of bias is particularly acute when the extrapolated claim is so substantial in value compared to the quantification of the claim before extrapolation.
- 26.47 In its closing submissions Cumbria sought to place reliance (paragraph 371) on what it says was its right under the contract to have required Amey to remove any patches which were non-compliant in terms of thickness and replace them with thickness compliant patches.

However it does not seem to me that this argument can assist Cumbria in relation to the case which it has chosen to make based on extrapolation, where it says that it is unable to identify each and every alleged non-compliant patch. Furthermore, I do not consider that this contractual provision would have allowed Cumbria to demand reinstatement in every case of non-compliance, regardless of the necessity or reasonableness of that option, especially in circumstances where no such claim was notified within the defects liability period and bearing in mind issues of service life.

26.48 As regards the question of quantification, the issues are helpfully summarised in the further joint statement of the quantum experts. As I have already indicated, one significant issue is what adjustment should be made to reflect the fact that a reduction in the thickness of a patch will not have a proportionate reduction in the overall cost of the labour and plant required to lay a patch. Mr Dale considers that the reduction in labour and plant cost would be 91.5% to 100% of the reduction in patch thickness, whereas Mr Taft considers that it would be of the order of 65%. In my view Mr Dale's approach is not realistic, since it does not distinguish between the different components of the rate, namely materials, labour, plant, overhead and margin, nor is it realistic in the context of type 3 patches, where the overall depth is the same but the layers are different. Whilst I accept that Mr Taft's analysis is based on little more than his experience, and he provides little in the way of detailed commentary on Mr Dale's approach, nonetheless I am inclined to prefer it in the circumstances.

26.49 Thus, whilst I am satisfied that the claim cannot succeed because of Cumbria's failure to satisfy me that it is appropriate to extrapolate the results of the sample to the overall population, if I had been satisfied I would have assessed the proportion of the sample which were non-compliant by reference to the 87 patches referred to by Mr Griffiths, and assessed the quantification by reference to Mr Taft's assessment of the reduction in labour and plant costs. That would have required a further calculation to have been undertaken to produce a final figure.

27 **(3) Incorrect materials**

27.1 Cumbria's case is that the core test results reveal that in breach of the contract standard and, hence, in breach of warranty, in 106 cases involving type 3/1 and 3/2 patches close graded surface course with 10 mm aggregate was used in place of dense graded binder course with 20 mm aggregate.

27.2 Cumbria has excluded those patches which are also said to be defective and requiring replacement from this claim, in order to avoid duplication, although it has not also excluded those which are said to be defective but only require repair.

27.3 Cumbria contends that as a result the service life of the patches is reduced by approximately 30% (47% in the 3/2 patches without slurry seal) and that in relation to the 3/1 patches where no slurry seal was provided there is also a need to provide a temporary repair.

- 27.4 The quantification of the claim is complicated by the fact that Cumbria has separated out the patches which have been slurry sealed from those which have not, but also has to distinguish between those which have not been slurry sealed because it was not ordered from those which should have been slurry sealed, with the results that the claim is pleaded by way of 6 separate factual scenarios, each having its own quantification of loss, by reference to the remedial works said to be necessary in individual cases, and the claimed loss of service life in all cases. There is also a claim for a 300 mm replacement “collar” to all sides other than the kerb side. The claim, duly extrapolated, is said to amount to £2,071,006.63. The claim as pursued in closing submissions has been reduced to £958,657.08 (paragraph 234).
- 27.5 Mr Griffiths agrees that the core test results establish that 52 out of the 64 type 3/1 patches do have incorrect material of one kind or another present. He also agrees that they establish that 11 of the 42 type 3/2 patches have incorrect material of one kind or another present. In the circumstances, and given the time constraints, it is perhaps not surprising that neither expert was cross-examined in relation to the disputed cores. Professor Knapton was referred to one example, where Mr Griffiths had said that the core had not been taken sufficiently deep to establish what material was made at lower depth, and he agreed.
- 27.6 I turn immediately to the question of extrapolation, and am satisfied for the same reasons as given previously that Cumbria has failed to satisfy me on the balance of probabilities that this claim can succeed as an extrapolated claim. As Mr Dale accepted in cross examination, the largest elements of this claim, approximately £1.76 million of the pleaded claim, is derived from a pre-extrapolation claim of only £16,902, less than 1% of the total. It would require convincing evidence to satisfy me that such a modest claim in relation to such a small number of results could be used to justify such a substantial extrapolated claim.
- 27.7 In the circumstances, and given the absence of cross examination on the remaining samples which are not agreed by Mr Griffiths, there seems to me to be no purpose in seeking to work through those individual items and produce a determination on each. In its closing submissions Cumbria has devoted a substantial amount of time and effort (paragraphs 262 – 324) to working through the core test results in question. However, in the absence of cross examination of the experts on the issues, there seems to me to be little or no benefit in following Cumbria through this exercise. Cumbria has clearly satisfied Mr Griffiths that a significant proportion of the patches were laid with incorrect materials. I have no doubt that if both experts were asked to work through the remaining patches Cumbria would be able to point to material which would satisfy me that incorrect materials were used in a number of those as well. I do not think that I am in a position to conclude that Cumbria would succeed on all of those remaining patches; for example in closing submissions on day 42 Mr Streatfeild-James was able to demonstrate that in relation to at least one of the patches referred to by Mrs Pigott in her closing submissions on the previous day a closer investigation revealed that Cumbria had erroneously claimed that a 3/1 patch had been laid with incorrect materials when, in fact, it had been ordered and installed as a 3/2 patch. Furthermore, whereas Mr Griffiths have picked this discrepancy, Professor Knapton had not, which was indicative of the greater detail applied by Mr Griffiths to this exercise than by Professor Knapton.

- 27.8 There was some significant dispute between the experts as to whether or not it would in fact make any difference to the longevity of patches that the incorrect material had been used, which I should refer to and resolve. The dispute turned on the difference between the surface course which was used instead of the binder course which should have been used. The major difference between the two, judging from the specification, appears to be the binder content and the size of the aggregate.
- 27.9 Professor Knapton's opinion was that surface course is less stiff than binder course, making it more liable to crack if used as a base, which will cause deformation as well as cracking spreading upwards to the surface. He accepted that it was very difficult to predict the timescale within which this might occur, but he did say that he would expect it to happen much more quickly on heavily trafficked roads, subject of course to how well designed and constructed an individual road might be. He also accepted that there was no evidence that this had occurred to date, saying that he would not expect to see visible signs after so short a time period. He did however accept that Mr Griffiths opinion, which is that the road would be more durable, would be the "conventional received wisdom". In his principal report Mr Griffiths had given reasons for that opinion (page 96) and in my view Professor Knapton's response in his supplemental report (page 330) did not really engage with the detailed points made by Mr Griffiths.
- 27.10 I can see that at a simplistic level it might be thought obvious that using a surface course instead of a binder course must make a difference, and one which would be unduly prejudicial to the quality of the completed surface. However, where there are two paving experts who reach differing views, and where Mr Griffiths view appears to represent conventional received wisdom, I do not think that I can decide this issue on that simplistic approach. Indeed, Professor Knapton has been unable to refer to research which would support his view and, therefore, on balance I am not persuaded that Cumbria has discharged the burden of proving that even though there is a non-compliance that would make a difference of any substance to the performance of the road over its service life.
- 27.11 Professor Knapton was also unable to say over what period of time the failure mechanism which he posited would happen. His evidence was that the design life of these roads was between 20 and 40 years and his best estimate was that the non-compliance would lead them to fail approximately 30% earlier than they would otherwise have done. It is clear from his reports and from his evidence that he has been unable to find data which considered the difference between the materials which should have been and were provided in this case. What he has done is to assess the materials as similar to other materials where there is data, and use that data to arrive at his 30% design life reduction. He accepted in his report and in his evidence that this was not, and could not be, a precise calculation. He was, nonetheless, confident that he could draw a comparison between the differing materials with some confidence, given his expertise in this area. However the question which I have to determine is whether this data, intended for a different purpose, can safely be applied to the materials in question in this case. Mr Griffiths disagreed that they can safely be applied and, in the absence of some independent material upon which Professor Knapton can draw to support his

opinion, I do not consider that Cumbria has discharged the burden of proof in relation to this issue.

- 27.12 The consequence is that I am not satisfied that Cumbria has established its claim in terms of causation, in other words that it has established that Amey's breach of contract in using the incorrect materials has led to any tangible reduction in the service life of the roads or, if it has, one upon which any reliable measure can be placed and, hence, in my view Cumbria has failed to establish that it has suffered any tangible loss.
- 27.13 In the circumstances, I do not consider that anything is to be gained from delving into the extremely complex disputes as between the quantum experts. It is apparent from the further joint statement that both Mr Taft and Mr Dale have had some difficulty in understanding the basis of this claim. Thus as regards the reduction in life span claim it appears that it has been the subject of some significant analysis and revision by Mr Dale, as appears from his report, as a result of which a substantial element of the claim has been transferred from one subsection of the claim to another. Nevertheless, when Mr Dale was asked in detail about this, it became clear that he had not been involved in the substance of the claim, and the most that he had done was to seek to support the arithmetic, but that when pressed he was unable to do even that. My conclusion is that it is clear that this is a purely theoretical claim where Cumbria, having identified a breach of contract, has tried its hardest to find some way of advancing a substantial financial claim, but has been unable to do so other than by a completely theoretical basis, in a way which even its own quantum expert cannot explain, let alone justify.
- 27.14 In its closing written submissions (paragraph 238) Cumbria realistically accepted that in the light of the evidence given by Professor Knapton and Mr Dale it was not pursuing its costs of reinstatement claim on the basis identified above. Instead, Cumbria sought to rely upon an alternative calculation which had been produced by Mr Dale in his report. What he had done was to produce a figure based on the amount paid to Amey for the binder material which had not been laid, which he assessed as being £16,932.30 before extrapolation and £963,793.83 after extrapolation; these figures have been slightly adjusted downwards subsequently, as appears from paragraph 333 of the closing. However, even though Mr Taft was able to agree these figures as figures, they do not, so far as I can see, give any credit to Amey for the value of the surfacing material laid in place of the binder material. It would have been necessary for Cumbria to amend to plead this claim or, at the very least, to have made it clear before the evidence from the experts was given that this is the way in which it was now pursuing its claim, so as to allow Amey a fair opportunity to consider it and to respond in that knowledge. It seems to me to be far too late to seek to introduce it as a fallback in closing submissions in a belated attempt to seek to salvage something from the wreckage of the existing pleaded case. Leaving aside the question of whether or not it is a gross, rather than a net, claim, it would of course also have failed on extrapolation in any event.
- 27.15 In summary, this claim fails.

28. (4) Patch testing

- 28.1 The pleaded value of this claim was £372,192, whereas in written closing submissions it had reduced in value to £275,058.41 (paragraph 428). However, as I have already said on a number of occasions now, it is pleaded on the basis of a construction of the contract which I reject.
- 28.2 Cumbria pleaded as an alternative argument that in so far as Capita as the overseeing organisation did not give any direction, then Amey was obliged under condition 9.3 of the services agreement to notify it of such failure with the outcome, presumably, that Capita would have remedied its omission and given directions to core test 10% of the total number of patches. However, on the construction of appendix 1/5 which I have accepted, condition 9.3 is simply not engaged. Condition 9.3 would only apply if there was an obligation to test 10% of the patches, with the relevant patch locations to be specified by Capita, but Capita did not specify the patch locations, with the result that Amey was unable to ascertain which patches to test and hence to perform its obligations. I can accept that in those circumstances Amey would have been obliged to notify under condition 9.3. However, to the contrary, there would have been no obligation to notify if, as I have found was the case on a true construction of the contract, Amey was under no obligation to test at all unless and until a direction to do so was received from Capita as the overseeing organisation. Therefore, this alternative argument fails as well.
- 28.3 In the circumstances, I can address the issue of quantification relatively briefly. I have already referred to the point that the claim as advanced appears to assume that damages should be assessed on the basis that 10% of patching should have been tested even though, as I have said, that does not seem to me to follow from the obligation actually imposed by the contract. In the absence, however, of any evidence or submission as to what, if any, minimum quantity of testing would have been acceptable had Cumbria's construction been correct, I do not consider that I am in a position to address this point any further nor, of course, do I need to do so given the conclusions I have already reached.
- 28.4 As I have said, this is not a claim which depends on extrapolation. Moreover, since Amey does not contend that it has core tested any patches, the only question is what testing should have been undertaken and at what cost. It is common ground that the testing required would have been coring for compaction, and that this would have to have been done after the patching had been completed by a specialist laboratory attending site, taking a core sample, and then testing it in laboratory conditions and producing a test report and certificate.
- 28.5 The pleaded case was based upon a quotation from PTS, to which traffic management was added, as was a main contractor overhead and margin addition, producing a total of £234.05 per test. This was then adjusted by reference to the RPIx back to the applicable rate at the midpoint of the contract, for ease of calculation, producing a total claim of £372,192. The claim is pleaded primarily as a restitutionary claim, although it is also pleaded in the alternative as a damages claim, on the basis that Cumbria would have to undertake this core testing as a retrospective exercise. I do not, however, accept that Cumbria has ever had, or

could ever reasonably have had, any genuine intention to undertake a retrospective core testing exercise in relation to any, let alone 10%, of these patches. There is no evidence to support such a claim and, moreover, it could only be justified if there was some proper reason to consider that it was necessary for public safety purposes as – for example – it is said to be in relation to the schedule 3 claim.

- 28.6 As regards the claim in restitution or equivalent claim in damages, it seems to me that in principle the claim ought to be assessed on the basis of the cost which Amey would have incurred in undertaking core testing which, on this hypothesis, it has failed to undertake. The practical difficulty is that because there is no separate itemised rate for core testing, it is necessary to ascertain the cost which would have been incurred by Amey from other evidence.
- 28.7 The issues as between the quantum experts are summarised in their further joint statement on this point.
- 28.8 The first issue is whether the 10% should be 10% of all patches, or 10% of the total area of patching. Although I do not find this altogether easy from the words used in the contract, on balance it seems to me that it must be 10% of all patches, otherwise it is very difficult if not impossible to ascertain the precise extent of Amey's core testing obligation.
- 28.9 The second issue is whether the rate should be the net cost to Amey, or should include its mark-up on that net cost. It seems to me that it should include Amey's mark-up, on the basis that this mark-up was an integral part of the rate which, if Cumbria's case be right, included the core testing which Amey was obliged to undertake.
- 28.10 The third and final issue is the number of tests per day which could have been undertaken by Amey. On balance I prefer Mr Dale's assessment as to that, since it is based on the evidence of Mr Field, which I am satisfied is reasonable and realistic.
- 28.11 It would appear, taking the figures as figures agreement in the table at [F/15BA/20] that this would result in a claim for £275,058.41, if I had found for Cumbria on liability.

29 **Schedule 3: surfacing and surface testing**

- 29.1 There are 3 separate claims within schedule 3, similar but not identical to those within schedule 2, namely; (1) visual defects; (2) surface thickness (3) testing.
- 29.2 It is a less substantial claim in money terms than schedule 2; in closing submissions the total value of the schedule 3 claims was said to be £2,848,857.11.
- 29.3 In the same way as with the schedule 2 claims, a number of overarching points are made by both parties.

- 29.4 Thus Amey submits that: (1) in the same way as with the patching claims, it is difficult to understand how the visual defects claims were not observed and notified at the time; (2) the individual constituent elements of the claims are either misconceived or inadequately substantiated; (3) the visual inspection sheets produced by PTS are no more than records of the subjective impressions of the individual PTS inspector, rather than a proper assessment by a properly qualified expert.
- 29.5 Cumbria submits that: (1) Amey ought to have generated, retained and produced relevant quality assurance documents, in particular roadwork inspection sheets and the requisite test results, and its failure to do so is relevant when considering the allegations of breach made by Cumbria; (2) Amey has failed to plead a positive case by way of response to the detailed schedules attached to schedule 3 of the counterclaim; (3) Amey has failed to put forward any positive alternative remedial scheme in the event that it is found liable for the breaches alleged; (4) the majority of the inspections as regards surfacing defects were undertaken by Mr Johnston of PTS, who was a reliable witness and who produced accurate and reliable visual inspection sheets; (5) although it is accepted that Amey was not responsible for design of surfacing works, it did have a contractual duty to warn in relation to design issues.
- 29.6 As regards Amey's points: (1) I do accept that if the visual defects were as serious as Cumbria now contends, it is surprising that they were not picked up by inspection on completion of the relevant works, particularly in circumstances where it is more likely that a substantial surfacing scheme would be inspected than would a series of small patches; (2) I also accept that many of the criticisms made by Amey in relation to the schedule 2 claims apply with equal force to the equivalent schedule 3 claims; (3) I agree that Cumbria ought to have undertaken a proper inspection exercise by a properly instructed expert, rather than to rely upon the combination of the PTS inspections supported by a desktop review by Professor Knapton, although I do also accept Cumbria's point (4) that Mr Johnston was a careful inspector.
- 29.7 As regards Cumbria's points: (1) I accept that Amey ought to have been able to produce the relevant quality assurance documents, which ought to some extent to have been able to establish contractual compliance; (2) as I have already said in relation to the schedule 2 claim, I do not accept Cumbria's point about the absence of a pleaded response to the defects schedules, in circumstances where Amey's detailed response is to be found in the expert evidence of Mr Griffiths; (3) I accept that I have to consider Cumbria's case about remedial works and costings in the context that Amey has not advanced any alternative, but that does not mean that I am bound simply to accept Cumbria's case without critical analysis; (4) as I have said, I accept that Mr Johnston was a careful inspector and his records should be given appropriate weight in that regard, however it must be borne in mind that the weight I can place on his records must be qualified by reference to the adequacy of the investigations he was asked to undertake; (5) in so far as it is relevant, I accept that in appropriate circumstances Amey would be under a duty to warn about deficiencies in the design of which it ought to have been aware.
- 29.8 With these general observations in mind, I turn to the individual claims.

30 **(1) Visual defects**

- 30.1 The visual defects claim is divided into 3 separate sections, corresponding with the 3 separate kinds of surfacing bed laid by Amey, namely HRA, HRA 55% and TSCS (see paragraph 1.36 above). The claim is supported by 7 separate schedules, A1, A2, A3, B1, B2, C1, C2, each representing a different permutation in relation to the type of surfacing bed and the defect. Cumbria's case is that the service life of a properly laid HRA surface bed is 20 years, the service life of a properly laid HRA 55% surface bed is 25 years, and this service life of a properly made TSCS bed is 15 years.
- 30.2 In relation to the HRA surface beds, Cumbria's case is that 78 of the 361 beds laid were inspected by PTS, and of those there were 46 instances where the chippings spread rate was insufficient, or uneven, or where there was a loss of chippings, and where replacement, repair or surface dressing was required, the details being found in schedules A1, A2 and A3. The claim is extrapolated to the totality of the beds laid, and a service life credit is then applied, producing a pleaded claim of £736,451.54.
- 30.3 In relation to the HRA 55% surface beds, Cumbria's case is that 58 of the 343 beds laid were inspected by PTS, and of those there were 17 instances where inadequate joint sealant had caused fretting and joint defects, and where replacement or repair (inlaid crack repairs as above) was required, the details being found in schedules B1 and B2. The claim, extrapolated and then discounted as above, is pleaded as being £73,803.07.
- 30.4 In relation to the TSCS beds, Cumbria's case is that 108 of the 425 beds laid were inspected by PTS, and of those there were 15 instances where inadequate joint sealant had caused fretting and joint defects, and where replacement or repair (inlaid crack repairs) was required, the details in schedules C1 and C2, with a remedial claim, extrapolated and then discounted, being £177,420.63.
- 30.5 All of these claims were supported in general terms by Professor Knapton in his principal report.
- 30.6 In his principal report Mr Griffiths was very critical of the quality of the PTS investigation specifically in relation to the subjective nature of the assessments of surfacing depth, chipping spread and road safety issues. Details of these criticisms are set out in paragraph 9.59 – 9.74. Professor Knapton accepted in his supplemental report that PTS was only instructed to undertake a subjective assessment. Insofar as the claims are based on a subjective assessment where it would have been reasonable to undertake an objective test, I agree with Mr Griffiths; however it does not appear from the examples selected that this is the case in relation to the majority of surfacing beds.
- 30.7 Mr Griffiths also says that if the surfacing works were defective he would expect to see damage occurring after the first winter so that the problem would be picked up at the end of the defects liability period. There is no evidence so far as I am aware as to whether or not

Capita was expressly instructed to return to inspect surface beds at the end of the relevant defects liability period. However if the damage or defect was sufficiently serious as to prejudice road user safety I would have expected that they would have been picked up in the course of the regular safety inspections undertaken by behalf of Cumbria to meet its statutory obligations.

- 30.8 Mr Griffiths also criticises (paragraph 9.88) the scope of the PTS investigation, because PTS was not asked to consider the age of the surfacing bed or how to record fair wear and tear of the bed. This is part and parcel of the overall criticism that PTS was not asked to consider whether or not the defects it found were matters which could be said to amount to breaches by Amey and, as I have said, I agree with this general criticism.
- 30.9 Mr Griffiths accepts that the contract requires an initial minimum road texture depth of 1.5 mm, although he points out (paragraph 9.92) that all sites tested achieved average texture depths of at least 1 mm, being the requirement at the end of the 2-year defects liability period. He also refers (paragraph 9.72) to Cumbria's skidding policy, which requires it to achieve a minimum texture depth of 0.7 mm on all highway sites. This policy appears to me to be relevant to the question of whether Cumbria would replace surface beds where the minimum texture depth accorded with its skidding policy.
- 30.10 Mr Griffiths also considered that it was important to understand how individual surfacing beds were specified and ordered and, in particular, to consider whether or not the correct design choice had been made by Capita when selecting the type of surfacing bed so as to achieve a reasonable service life. He did not in his reports or under cross-examination seriously challenge Cumbria's service life assessments, although he did stress that they could only be regarded as achievable in the case of a well designed and well constructed surface which was not subject to abnormal usage or conditions, a qualification with which I agree.
- 30.11 Mr Griffiths considered in section 13 of and the appendix to his report the details of the complaints made by Cumbria. In short, as regards the HRA surfacing beds he disputed the allegations of insufficient chipping depth and inconsistent chipping application, he accepted there was some evidence of potential poor workmanship in some of the surfacing beds, although he also queried the cause and the extent of some of the problems, and he disputed the allegations about the joints and the surface dressing. As regards the HRA 55% surface beds, he accepted there was some evidence of poor workmanship as regards fretting and joint sealant. As regards the TSCS beds, again he accepted there was some fretting, but said that it was due to the wrong specification being chosen, which was not Amey's responsibility, and was not satisfied that problems with the others were due to poor workmanship.
- 30.12 Professor Knapton also addressed these issues in some length in his supplemental report. His principal point was that, given the expected design life of these surfacing beds, it was unacceptable for defects of the kind observed to be manifesting themselves after less than 5 years, and there was no real basis to consider that poor design could be an explanation. In general terms, I found his opinions in relation to the defects in the case of the HRA beds requiring replacement reasonably convincing, whereas I found his opinions in relation to the

defects in the case of the HRA beds said to require inlaid crack repairs less convincing. In both cases, I found his insistence that road use could not be a causative or contributory factor, for example a high incidence of HGV trafficking, or a combination of a high approach speed and a sharp bend for roundabouts, unconvincing. I am satisfied that there will be at least some instances where the wrong surface was specified or where the particular road use led to defects or damage within a relatively short time, even though there was no defect in Amey's workmanship. It also seemed to me that Professor Knapton had not really considered the allegations in the context of Cumbria's statutory safety obligations or its policies as regards repairs. In short, it seemed to me that he had focused almost exclusively on this as a contract compliance issue rather than a real life problem.

- 30.13 In its closing submissions, Cumbria invited me to consider and reach conclusions on each individual item separately. For that purpose it provided me with appendices to its closing submissions which very helpfully contained summaries of, and references to, the evidence upon which it relies in relation to each such item. By reference to those appendices and the transcripts it appears that only 12 of the individual items were the subject of oral evidence, with one more having been viewed on the site inspection but not specifically raised in evidence. Whilst I do recognise that the total number of items in issue under the surfacing visual defects claim is not so great as that under the patching visual defects claim, nonetheless and for essentially the same reasons it does not seem to me to be either necessary or proportionate for me to work through each of them without the benefit of having had the respective arguments tested by live evidence, unless or until it is necessary to do so on the basis that I am satisfied as to Cumbria's case on extrapolation. Since I am not satisfied, I do not need to do so, although I have, in the same way as with the patching visible defects claim, considered and addressed those claims which were tested in live evidence before forming a view on extrapolation, and I now proceed to set out my conclusions in relation to each of those claims.

Claim 7

- 30.14 This is a claim for the cost of inlaid crack repair to a 40 m length of perimeter joint, with complaint also being made about the spread of chippings. In his schedule Mr Griffiths said that the photographs showed that the joints appeared acceptable. In cross examination, on being shown the photographs he accepted what in my view was clearly the case, which is that the joints are uneven but are not damaged or unacceptable, especially in circumstances where there is no indication that they have deteriorated in the 2 years since they were first inspected. Mr Griffiths said that if any remedial works were necessary, then overbanding would be a suitable remedial solution. I accept that opinion. The edges are uneven and contractually non-compliant, but in the absence of any contemporaneous complaint, and in the absence of any actual defects such as edge deterioration or any danger (and I note that the joints are described in the visual inspection sheet as "okay"), it is difficult to see why the cost of a full inlaid crack repair would be considered necessary or even reasonable by a highways authority, acting in a sensible and prudent manner.

30.15 Although not raised with Professor Knapton in his evidence, I note that in his supplemental report that this is one of a number of claims where Professor Knapton appears to find it difficult to express a definitive opinion from the photographs alone, but assumes that PTS conducted a reasonable inspection and therefore produced the conclusion which he can support.

Claim 11

30.16 This is a claim where Cumbria complains of the spread of chippings, the loss of chippings, fretting and problems with the joints. In his schedule Mr Griffiths accepted there was a limited problem in a limited area, but otherwise suggested that Cumbria had not “proved its case”. In cross examination he accepted that laying HRA surfacing beds was skilled work, so that if not done with sufficient care these problems were liable to result. He also accepted that the photographs indicated some poor patching spread, some chip loss and some fretting.

30.17 Although I do not criticise Mr Griffiths for qualifying his views in his schedule, due to the difficulties associated with the lack of information, I am satisfied on balance that this is a justified claim and that a reasonable highways authority would be justified in undertaking the remedial works claimed. I am not satisfied that a more limited remedial works proposal would be sufficient, and accept here, as with other individual claims, that Mr Griffiths has not produced any cost estimate for any lesser scheme.

Claim 17

30.18 Under cross examination Mr Griffiths accepted that the chippings spread was uneven, and he had also accepted in his schedule that at least part would, as he put it, “benefit from resurfacing”. I am satisfied, given the age of the works and the absence of any other realistic cause, that this is a case of defective work where Cumbria has established its case in relation to remedial works.

Claim 19

30.19 This is a lengthy section of A road, running under the M6 motorway, which was inspected on the site visit. The complaint is of uneven chipping spread rates, with some areas of chipping loss and fretting and other areas where the chippings are said to be fully embedded. In his schedule Mr Griffiths had accepted that there was evidence of chipping loss in 2 specific areas, and that these would benefit from resurfacing or patching. He did not accept however that in the absence of safety inspection records or Scrim data that the full extent of the works suggested by Cumbria, namely full replacement of the extensive areas said to be affected, including 1 length of 450m by 7m, was justified.

30.20 Under cross examination Professor Knapton accepted that the macrotexture test undertaken by Amey at the time of surfacing showed that the area tested complied with the contract specification. Although there was some suggestion by him that this might not be the case

elsewhere at the time, in the absence of contemporaneous evidence to that effect this seems to me to be sheer speculation.

- 30.21 Cumbria relies on sand patch tests taken in 2013; however the most that can be said from these is that 2 years after being laid, on a high-speed busy A road, some of the results fall outside the contract specification, whereas the average is only 0.1mm below the 1.5 mm contract requirements. As Amey submits, if Cumbria was genuinely concerned about the safety of this road in this area it would have commissioned a Scrim test long ago.
- 30.22 Mr Griffiths evidence in cross-examination was consistent with his view in his report, and on balance I prefer and accept that view to Professor Knapton. In short, I accept that there is evidence of a patchy spread rate, which would benefit from some limited patch repairs, and which was probably on the balance of probabilities due to initial defective workmanship by Amey, but in the absence of a results from a proper Scrim test I am not satisfied that Cumbria has established the need for the extensive remedial works for which it contends, to a substantial value of £5,076.3. My conclusion is that a lesser remedial scheme at, I have no doubt, significantly lesser cost, is all that would reasonably be required. Whilst I accept that Amey has not costed the patch repairs claim, I am satisfied that it would be modest in comparison.

Claim 30

- 30.23 Having considered the evidence in relation to the claim, in particular the cross examination of Mr Griffiths, I am satisfied that Cumbria has made out its case. This is a relatively quiet road which was surfaced in late 2011, but by July 2012 there is evidence that it was showing signs of defects, and I am satisfied that there is no basis for suggesting that this was due to anything other than defective workmanship. I am fortified in this conclusion by Amey's failure to produce any contemporaneous documentation, such as roadway inspection sheets for materials delivery records, to disprove a reasonable inference that it was due to laying the surface whilst too cold.

Claim 47

- 30.24 The complaint made by Cumbria is of fretting to the surface at a road junction. The work was undertaken in 2007 and PTS did not inspect until 5 years later, in 2012. Notwithstanding this time gap, in the absence of any sensible alternative explanation (whilst Mr Griffiths suggested there might be a problem with the foundations, there is no basis so far as I can see for this suggestion) and in the absence of production of contemporaneous documentation I am satisfied on the balance of probabilities that it is due to defective workmanship.
- 30.25 I do, however, accept Mr Griffiths' view that all that would be necessary would be a relatively modest patch repair to the affected area, at significantly lesser cost to that claimed by Cumbria although once again Amey has failed to provide a valuation for that lesser scope of works.

Claim 48

30.26 This claim is similar to claim 47. Mr Griffiths accepted that the remedial works claimed were necessary and proportionate, but queried whether the defect was due to workmanship by Amey. He had suggested that the TSCS specified was not appropriate for the likely stress levels at this junction but, when pressed, he was unable to be definitive about this. He also had expressed the view that the cause might be fair wear and tear, but given the age of the surfacing bed it seems to me that the most likely explanation is poor work and I find in Cumbria's favour.

Claim 58

30.27 This surfacing bed was seen on the site visit, being part of the main street in Kirkby Stephen, where the complaints in the visual inspection sheet was of cracking and depression around a manhole and some fretting and delamination on a roundabout, which was recorded as being "outside of section". References was also made to there being only a 10 mm TCSC bed, as opposed to the 14 mm instructed, but no separate point is raised about that.

30.28 Professor Knapton accepted in cross-examination that it was not possible to locate the manhole in question, and that the fretting and delamination could have been intended to refer to the part of the road outside the area laid by Amey. This would be consistent with observations made in other visual inspection sheets, and I accept that analysis. Even though there was no hard evidence to indicate that this was not the case, Professor Knapton appeared to place some reliance on Mr Robinson's "feeling" that the defective area was within the Amey surfacing bed which, as I have commented elsewhere, seems to me to be an unacceptable approach for Professor Knapton to take in the absence of some proper basis for adopting that as an independent view.

30.29 In the circumstances, I am satisfied that this claim would fail.

Claim 59

30.30 Cumbria's case is that the joint is subject to deterioration and fretting, and that a replacement of 15 m x 12 m is required. Under cross examination Mr Griffiths appeared to agree with this, and I am satisfied both that there is a defect and that it is due to Amey's poor workmanship. Although 1 point Mr Griffiths appeared to suggest that the material laid, which was not what was instructed, was not necessarily suitable for roundabouts, there was no hard evidence to support this, which was an argument advanced rather late with no substantiation, especially in circumstances where the evidence shows that Amey would have had the opportunity to raise any concern as to the unsuitability of the material if it had thought that this was the case at the time.

30.31 Mr Griffiths also suggested that a lesser remedial scheme would be sufficient but, again, had not put forward a detailed costing proposal. I am satisfied on balance that the remedial works proposed by Cumbria are reasonable.

Claim 60

- 30.32 This item relates to surfacing work done to a road in Milnthorpe which was seen on the site visit, where the complaints are of fretting and cracking in wheel tracks in 2 locations, and some fretting in a transverse joint, and where replacement of the affected area and repair of the affected joint are claimed.
- 30.33 In his report Mr Griffiths attempted to minimise the extent of the defects and to suggest that the scope of repairs was overstated. He also suggested that the cause might not be poor workmanship and might, potentially, be poor design and/or poor foundations.
- 30.34 However it seems clear to me from the photographs and from the site visit that the joint is in an obviously poor condition, as is the fretting and cracking to the wheel tracks. It seems to me that Mr Griffiths had sought to minimise both the extent of the problem and the affected area, without strong support for that view. It also seems to me that his suggestion of possible alternative causes was no more than speculation. In cross examination he was referred to the relevant works instruction which showed that a 16mm base course as well as a 45 mm HRA 55% surface course was instructed, and to the record of a pre-work meeting at which Amey raised no concerns as regards the foundations or as to either design. Mr Griffiths refused to accept that this tended to undermine his theories. He had never, however, sought to undertake any investigations himself to seek to establish his theory. He had to accept that Amey had failed to produce any contemporaneous records to support his theories or to undermine Cumbria's case. He also had to accept that once the existing surfacing had been planed away the condition of the foundations could and should have been checked for cracking or water-related problems, which should have been drawn to Capita's attention if present, but there was no evidence that anything had been seen or done at the time in that regard. Finally, he accepted that the joint pathway along the road was open and needed sealing. When pressed, he was unable to suggest any alternative proposals for remedial works to that put forward by Amey.
- 30.35 I am satisfied that Cumbria has established its case in relation to this claim. Indeed it seemed to me to be a claim which was always strong and that Mr Griffiths ought, rather than seeking to raise counter arguments with no real substance, to have accepted it as justified from the outset.

Claim 61

- 30.36 Cumbria's complaint is of patchy chipping spread and chipping loss at a roundabout junction, where apart from one area full replacement is claimed.
- 30.37 Although Mr Griffiths in cross-examination suggested that a reason for the defects, which were not disputed, might be poor design, it seems to me that there is no cogent basis for this suggestion and, given the age of the surfacing, the only realistic cause is poor workmanship. Mr Griffiths was unable to propose any alternative remedial scheme, accepting that the

roundabout appeared to need resurfacing. In the circumstances, I am satisfied that Cumbria has made out its case in relation to this claim.

Claim 63

30.38 Cumbria complains that there is some fretting, in places heavy, and failures at multiple locations, which require complete replacement. Mr Griffiths accepted that there was some fretting and some failures requiring patch repairs, but was not prepared to accept that it was due to defective work, given that the surfacing had been undertaken 6 years before PTS had inspected.

30.39 However under cross examination he was shown core results which appeared to show that the surfacing was not as thick as was required under the contract, and which supported Cumbria's case that the problems were due to poor workmanship. Although he suggested that the cause might alternatively be due to poor foundations, that seemed to me to be speculation.

30.40 Whilst I can see that this is a relatively old piece of surfacing, nonetheless it ought to have lasted significantly longer than it has, and on balance I am satisfied that Cumbria has made out its case.

Claim 57

30.41 This was not the subject of cross-examination, but was seen at the site visit. On balance I was not satisfied that the defective area was within the carriageway where Amey had undertaken works, as opposed to within the entrance to the lorry park. Nor was I satisfied that the cause of the damage was defective workmanship, as opposed to the heavy wear and tear exerted by lorries turning in and out and stopping for traffic before moving off again. In the circumstances, I am not satisfied that Cumbria has established its case in relation to this item.

Conclusions in relation to the individual claims

30.42 Of the 13 sites I have considered, I have accepted Cumbria's case as regards 8 of them, rejected Cumbria's case as regards 3 of them, and found that a lesser remedial work scheme would have been appropriate in relation to 2 of them. It will be seen from a comparison with the schedule 2 visual defects claim that Cumbria has achieved rather greater success in relation to this part of the claim by reference to the claims on which the experts were questioned. I am satisfied that there are a number of reasons for this. The first is because there is no scope for confusion as to whether or not the correct surfacing bed, as opposed to the correct patch, has been inspected. The second is because there is less scope for dispute as to the necessary remedial works, because of the greater service life reasonably expected from surfacing beds as opposed to patch repairs, but also because the remedial works claimed are more realistic. The third is because I accept that in the main the visual inspection records completed by Mr Johnston are accurate, albeit subject to the qualification that they do not contain objective measurements in some cases.

30.43 It follows that I should proceed on the basis that I can be reasonably satisfied that if I were to work through the whole of the sample I would be likely to find in Cumbria's favour in relation to a reasonably high proportion of the overall total.

Extrapolation

30.44 The sampling process undertaken in relation to surfacing beds was described by Mr O'Farrell in his first witness statement (paragraphs 162 – 194) and by Mr Robinson in his first witness statement (paragraphs 340 – 374). It is clear that the initial process could not in any sense be described as random, since it excluded surfacing beds of less than 100 m², it excluded surfacing beds where Amey had already produced test results, it excluded surfacing beds laid to non-A roads undertaken in years 1 and 2, and it excluded surfacing beds to A roads laid in years 3 and 4: see generally Dr van Liere's summary in paragraph 6.201 of his principal report.

30.45 Mr Robinson explains that the last 2 categories were excluded because Cumbria would have surveyed and obtained scanner data for these and, if defective, would normally have been rectified within the following 4 years. It would appear to follow that, leaving aside anything else, there would be no basis for extrapolating the sample in relation to either of these 2 categories of surfacing beds, where Cumbria could have advanced a straightforward claim on the basis of those beds where remedial works had in fact been carried out. However there is no evidence that this point was ever even considered, let alone addressed, and Mr Hodgen accepted in cross examination that he had not made any adjustments in relation to these categories. His explanation was that it was for the court, not for him, to do so. Whilst I accept, of course, that the final decision must be for the court, it was unacceptable in my judgment for Cumbria and its statistical expert not even to address this issue, or to suggest some sensible basis, following some reasonable assessment, as to how this difficulty might be addressed. Whilst of course one could simply exclude all surfacing beds falling within those categories in those years, it still leaves open the possibility that the overall percentage is skewed by the failure to sample at all in relation to these surfacing beds.

30.46 As regards the smaller surfacing beds, no rationale appears to be given for this decision. Again, however, and the very least it would not be proper to extrapolate in relation to all surfacing beds falling within this category, but again it still leaves open the possibility that the overall percentage is skewed by the failure to sample at all in relation to these surfacing beds.

30.47 As regards the surfacing beds where Amey had produced test results, it appears from paragraph 344 of Mr Robinson's witness statement that "the main reason for investigation was to ensure that the surfacing work done by Amey was safe". This, presumably, means that there was no need to investigate where acceptable test results had already been provided. It is obvious, however, that it would be inappropriate to seek to extrapolate the results to surfacing beds where test results have been obtained. Indeed, it also appears obvious that this decision introduces a real source of bias, because it might be thought obvious that if test results were provided they would either show the surface to be acceptable in which case, by definition, there would be no visible defects which could form part of the extrapolation, or to be

defective in which case, presumably, Amey would have been asked to undertake remedial works and either would have done so at its own expense, in which case the same conclusion arises, or they would fall within the schedule 7 claim, and hence could not be included within this claim as well. Again, remarkably, there is no indication that this question has been considered, let alone addressed, by Cumbria or by its expert.

- 30.48 Mr Robinson explains that a positive decision was taken to inspect sites where scanner surveys have been undertaken and revealed a low texture depth, and also to inspect sites where there were records of accidents. It would appear that after March 2013 this became the exclusive focus of the investigations: see paragraph 352. Again, it appears obvious that this introduces bias, in that seeking to extrapolate to the population at large from sites where an apparent defect has already been found is wholly inappropriate, but yet again there is no indication that this question was considered, let alone addressed, by Cumbria or its expert.
- 30.49 It also appears that PTS did not inspect sites which were not considered safe to inspect without a traffic management scheme being put in place. Whilst this was obviously sensible from the perspective of safety, and obviously also driven by time and cost considerations, it also introduces what is at least a potential source of bias, which ought to have been appreciated, considered and, if necessary addressed. Again, there is no evidence that this was done.
- 30.50 It also appears that surfacing beds laid in the Barrow area were excluded. Mr O'Farrell explains in his witness statement that there were a number of reasons why this was done, but the reasons given tend to indicate that seeking to extrapolate to any surfacing beds within the Barrow area without at least considering and if necessary addressing whether this was appropriate without introducing bias would be inappropriate, and Mr Hodgen agreed in cross examination that it would be necessary to do so. However, he also accepted that he had not sought to do so, and there is no evidence that anyone else had either.
- 30.51 At a more general level, the inconsistencies in the sampling process, when spread across the relevant years and surfacing types, is graphically illustrated in table 8 of Dr van Liere's principal report, with the consequences described in his report.
- 30.52 It is apparent from the cross-examination of Mr Hodgen that what he had done was to compare the results in relation to these 3 different surfacing types, and then applied his subjective view as to whether or not any individual results within the 3 types were sufficiently different as to qualify as an outlier which ought to be removed, save in relation to one where, in fairness to him, he recognised that removing it would have the effect of increasing the claim, rather than reducing it. However, the problem with this approach, as was put to him and as I accept, is that it introduces a subjective analysis into the approach which is not backed up by an objective analysis as to the reasons for the differences, which would enable a more informed and more rigorous approach to be taken to the steps which could and should be taken to address all actual or potential sources of bias. In short, Mr Hodgen has taken what he would describe as a common sense approach, but which I would describe as a rough and ready approach, which might be perfectly acceptable in other contexts, but which in my

judgment is unacceptable in the context of a claim in legal proceedings which has the effect of transforming what would otherwise be limited to a modest claim for damages for a small number of individual defects into a major claim for extrapolated damages.

- 30.53 In the circumstances, I accept the criticisms made by Dr van Liere of Cumbria's approach, as summarised at paragraphs 6.190 – 6.195 of his principal report and as expounded upon in the detailed sections which follow. In conclusion, it is obviously unsafe in my judgment to rely upon extrapolation in this case, primarily because of the introduction of sources of deliberate actual bias, for which no adjustment has been made, but also because of the problems with the early years and the areas.
- 30.54 It seemed to me from his cross-examination that what Mr Hodgen was really saying was that where there was evidence of a rate of defective workmanship in the sample, and where there was no reason to think that there would be no similar incidence of defective workmanship in the population at large, then since it would, in his view, be disproportionate in terms of time and cost to undertake a representative sampling exercise to address all potential variables, it would be more reasonable for a rough and ready extrapolation process to be undertaken rather than none at all, and that this was what had been done here. As I have said, I accept that this might be an appropriate approach in some cases. In my judgment, however, it is not good enough in a case such as the present, and that it was incumbent on Cumbria, if it was genuinely unable to undertake a random probability sampling exercise, to undertake a reasonable investigation into the actual or potential variables and then to undertake a sampling exercise which, although proportionate, took reasonable steps to address those variables. Here, Cumbria has made no attempt at all to do so and, in my judgment, it follows that the court cannot be persuaded that it is appropriate to extrapolate at all. The burden of proof might not be a relevant consideration outside legal proceedings, but it plainly is within them, and Cumbria has failed to satisfy me on the balance of probabilities that I can be sufficiently confident in its extrapolated claim to accept it.
- 30.55 Moreover, in the absence of any material which would enable me to put any assessment on the financial impact of the variables, it is simply not open to me to do palm tree justice by adopting some rough and ready percentage discount in an attempt to do so. In the same way as with the patching extrapolation claim I reject any suggestion, if made, that it was incumbent on Dr van Liere to put forward some basis for taking these variables into account; that would be to reverse the burden upon Cumbria to establish its case.
- 30.56 Finally, it is worth mentioning that at paragraph 6.224 of his principal report Dr van Liere also observes that the selection for coring for was limited to 14 mm close graded surfacing beds laid in the last 3 years of the contract, which on any view could not be described as either random or representative, again with no evidence of any consideration or analysis as to how any actual or potential bias arising from this decision could be addressed.

Quantification

- 30.57 In the same way as with the schedule 2 visible defects claims, given my conclusions in relation to extrapolation there is no benefit in my addressing all of the detailed issues which arise in relation to quantification. Essentially the same approach has been adopted by Cumbria, and the same arguments advanced by the quantum experts.
- 30.58 I do however reach a different conclusion in this case as to the justification for using the framework contractors' rates. That is because as regards surfacing the evidence is that the surfacing works have been done, and will continue to be done, by framework contractors as opposed to the DLO. I accept that Amey still has its criticisms about the higher cost of the framework contractors' rates when compared with its own contract rates, about the failure fully to disclose the relevant details as to the tender process and the contract, and about the fact that works done for the future would be carried out under different contractual arrangements. Nonetheless, I accept Cumbria's overarching point that these are, I am satisfied, competitive tenders which Cumbria has accepted on the basis that they are rates which it has been prepared to pay for work which has nothing to do with this litigation and, therefore, that they are the most reasonable rates to be used for resurfacing work the subject of this claim. I do not think that there is any basis for using AI's lower rates throughout, when Hanson's tender was clearly preferred for perfectly sound reasons in relation to 4 of the areas in question. The only caveats to this are that for the reasons previously given, I am satisfied that overbanding as opposed to repair would be sufficient remedial works for the defects with the joints, and that I would adopt the 6.5% traffic management rate as opposed to adopting Cumbria's analysis of what traffic management is required, which I am satisfied is liable to be flawed for the reasons given by Amey.
- 30.59 There is a further issue as to whether the remedial surface dressing works require 1 or 2 separate applications. The quantum experts agree in the further joint statement that this is a technical issue, about which they are not competent to express an opinion. I am not aware that this has been addressed by the paving experts or anyone else in the course of this case; it is not referred to in the closing submissions. I am unable to identify any technical or other good reason why there should be 2 separate applications, when so far as I am aware there is no evidence that Amey undertook surface dressing works in 2, rather than 1, application. I therefore proceed on the basis that only 1 application has been shown to be necessary.
- 30.60 Another issue is as to whether the existing pleaded case, based upon surfacing lengths, should be adopted, or whether I should adopt Mr Dale's alternative suggestion of using surfacing areas instead. Mr Taft observes that this would only be appropriate if it was assumed that all surface beds have an average area, which they do not. In my view Cumbria has not established a compelling case to depart from the case which it initially advanced, so that I would hold Cumbria to it.
- 30.61 The issue of discounting for service life also applies to this claim, and for the reasons already given should continue to apply and should run up to the date of judgment.
- 30.62 Finally, in its closing submissions, Cumbria advanced an alternative claim for a reduction in prices based on Amey's rates or, as a further alternative claim, for a percentage reduction in

accordance with Professor Knapton's suggestion in his report. Since I am satisfied that in relation to this claim reinstatement would in principle have been an appropriate measure which would have entitled Cumbria to substantial damages, there is no need for me to address this alternative fallback case. Insofar as it was intended to found the basis for a submission that if this approach was chosen there would be no need to apply a service life discount, I reject that submission, for the same reasons as applied to the similar arguments in relation to the schedule 2 visual defects claim.

30.63 However, for the reasons already given, these points are academic because the claim fails in relation to extrapolation.

31 **(2) Thickness**

31.1 This claim was pleaded as having a value of £218,072.61, however in closing submissions it was said to have a value of only £83,248.16 (paragraphs 470) and, thus, I shall address it relatively shortly.

31.2 Although Cumbria's closing submissions (paragraph 472) suggest that it is a case also based on extrapolation, in which case it would fail given my conclusions above, my re-reading of Schedule 3 indicates that it is not based on extrapolation, in which case my conclusions as regards extrapolation would not apply.

31.3 As originally pleaded, the claim was based on 186 core samples taken from 60 binder and surface courses, and 72 core samples taken from base, binder and surface courses. It is alleged that even allowing for the specified contract tolerances, a number of the beds sampled did not meet the required thickness. It is a claim pleaded in restitution.

31.4 In his principal report Mr Griffiths' summary of his position was that it was very difficult to reach a clear conclusion in relation to the majority, and that there were only 7 where there was clear evidence of breach, with the rest either demonstrating no breach or being inconclusive either way.

31.5 In cross examination of Professor Knapton, the focus was on claim 7 as the biggest value claim, and the only one with a separate value over £10,000. The experts were agreed that the relevant tolerance was 15 mm. Professor Knapton agreed that the principal question in relation to this claim was whether the core test results showed the bottom section of the core as being part of the existing road surface, as Cumbria had assumed, or as part of the new surface, as Amey contended. If the latter, it would appear that 4 of the 6 cores would either fall within the specification or be very close to doing so. Professor Knapton also accepted that, if that was the case, it would be unlikely that there would be 4 compliant cores and 2 non-compliant cores taken so close together. On considering the core test results, Professor Knapton accepted that it was not possible to be definitive one way or another. When Mr Griffiths was taken to the same core test results, it was suggested to him that the bottom section might be a regulating course, but he was unable to help with that suggestion. Again, it seems to me, that he could not say definitively what the core test results showed here. It

follows, in my view, that Cumbria has failed to establish on the balance of probabilities that the depth as laid in relation to claim 7 was not in accordance with the contract tolerance.

- 31.6 However, when Mr Griffiths was cross-examined in relation to 4 other claims, my impression was that he was struggling to defend the opinions included within his report, because it seemed to me that either he or those working under him (and my impression was that this task had largely been delegated to those working under him) had ignored what the core test results said, and proceeded solely on the basis of their own visual assessment of the photographs.
- 31.7 For example, in relation to claim D1/T2 Mr Griffiths reluctantly had to concede that he could not contradict what the core test results stated by PTS said, notwithstanding his clear reservations. He also had to accept that Amey ought to have been in a position to produce 4 core test results from this section of surfacing, but that none appeared to have been disclosed. It seems to me that his best point was that there was a relatively small difference of only 2 mm between the maximum tolerance and the actual measurement.
- 31.8 In relation to claim D1/T5, Mr Griffiths' only reason for disputing the claim was that in his view the works instruction was ambiguous as to what was required. However, it seemed to me that whatever else might have been ambiguous, the works instruction clearly specified a thickness of 50 mm and that was not complied with, so that Cumbria had made out its case in my view in relation to this claim. The arguments in relation to claims D1/T6 and D1/T8 were similar and, again, I was not persuaded by Mr Griffiths' views.
- 31.9 In conclusion, in my view Cumbria failed to prove its case in relation to claim 7, but it succeeded in relation to the other 4 investigated, albeit that in relation to the first there was a very fine margin of non-compliance. Without undertaking an exhaustive assessment of the other individual core test results, it seems to me that adopting a rough and ready analysis, based on the concessions made and the conclusions reached by me on the disputed items, Cumbria has succeeded as to some 50% of the claim by value, given that item 7, which failed, amounted to around £36,000 of the claimed total of around £83,000.
- 31.10 As regards quantification, the arguments are summarised by the quantum experts in their further joint statement. It appears that there is only one significant argument, which is as to the proportionate impact on labour and plant of the lesser thickness and, for the same reasons as given in relation to the schedule 2 thickness claim, I prefer Mr Taft's assessment, and thus consider that the maximum value of the claim on a full quantification is £49,774.94.
- 31.11 It follows that unless this is an extrapolated claim, Cumbria is entitled to succeed as to 50% of that sum, namely £24,887.47.

32 **(3) Surface testing**

- 32.1 Cumbria's pleaded case is that Amey failed to provide the testing required by appendix 1/5. Its claim appears to be pleaded as a breach of contract and/or as a restitutionary claim, on the basis of the cost which Amey would have incurred had it undertaken the required testing.

Cumbria does not plead or advance a claim on the basis that it will undertake this testing afresh at its own cost and seek to recover that cost as damages, doubtless on the basis that Cumbria has not undertaken this exercise nor will it do so, relying upon its standard safety inspection regime instead.

- 32.2 Amey contends in its closing submissions, for the same reasons as put forward in relation to the schedule 2 work not done claim, this claim cannot succeed as a matter of law. For the same reasons I gave when rejecting that argument there I do not accept it here either and am satisfied that Cumbria is in principle entitled to damages to the value of work not done by Amey.
- 32.3 Cumbria's pleaded approach to the quantification of this claim is to divide the tests required into different categories according to the different types of surfacing and referred to as T1 - T5 respectively. Cumbria has then produced an assessment of the time and hence cost which would have been taken in undertaking the required testing within each category. Cumbria has then made an assessment of the testing actually undertaken by Amey, based on the limited information which it says Amey has provided, so as to arrive at a claimed value of £2,222,870.95. This has since been adjusted, so that the value of the claim is now said to be £1,844,717.22, based on a claimed cost for testing required of £2,267,019.47, less an allowance for testing undertaken of £422,302.26 (see paragraph 478 of Cumbria's closing submissions).

What testing was required?

- 32.4 The only issue between the parties was as to what surface macrotexture testing was required in relation to category T3 cases, which I have resolved in favour of Cumbria (see paragraph 2.59 above). It follows that in relation to this category, surface macrotexture testing was required in all surfacing over 100 m² on all classes of road.

What testing was undertaken?

- 32.5 The next question is as to what testing was undertaken. Cumbria relies upon the disclosure made by Amey, provided in tranches as referred to in paragraphs 533 onwards of its written closing submissions, and has assessed the extent of testing undertaken by reference to the documents disclosed by Amey in accordance with the timetable for disclosure. It says that if and insofar as Amey has failed to make full disclosure of its testing records, or to identify which testing records relate to which surfacing scheme, it has only itself to blame. In that regard, Cumbria places reliance upon what Mr Griffiths said at paragraphs 13.94 – 13.95 of his principal report of November 2015, which was to the effect that there was a question as to how much testing had been undertaken, and that he recommended that Amey provide a "full reconciliation". Cumbria submits that the need for this full reconciliation was, or ought to have been, apparent to Amey from a very early stage, and that no proper explanation has been put forward for its failure to do provide one.

- 32.6 In their email of 14 January 2016, Amey’s solicitors said, albeit in the context of the preparation of the trial bundle, that a forensic analysis of all of Amey’s test reports would be “disproportionate”. However Mr Collins’ evidence under cross-examination was that all of the test results produced for a particular surfacing contract were added to the job pack, which was kept in the local area office as a hardcopy, available for auditing as and if needed, and also available to be inspected by Capita or Cumbria if requested. These files were, as I understand it, comprised within the files which were disclosed and uploaded onto the Relativity system. It would follow that there is no good reason why Amey ought not to have able to disclose all test results produced in relation to any individual surfacing scheme in such a way as would enable the type of full reconciliation suggested by Mr Griffiths to be undertaken. It appears to be Amey’s position that there are approximately 5,000 test records which have been disclosed and uploaded onto Magnum, although Cumbria’s position is that some are irrelevant and some are duplicated. Amey says that the process of obtaining, collating and reconciling the documentation which it has, so as to be able to demonstrate what testing was undertaken in relation to each surfacing scheme, has been far from straightforward, and that it should not be held responsible for the fact that Cumbria has been unable to provide a clear analysis of what was provided against what should have been provided in relation to each surfacing scheme.
- 32.7 As Mr Felc confirmed in cross examination, each test certificate should contain on its face the works instruction against which it was ordered, so that there ought not in my view to have been any great difficulty in correlating a particular certificate to a particular works instruction.
- 32.8 Amey submits that Cumbria’s case as to the level of non-compliance is at odds with the picture as revealed by the contemporaneous evidence as to what was happening during the course of the contract which reveals, so it says, that although there were some isolated complaints, generally there appeared to have been reasonable satisfaction.
- 32.9 Thus Amey relies upon the evidence of Mr Collins, who under cross examination was taken to the e-mail correspondence concerning Cumbria’s requests for testing certificates in the South Lakes area. I accept that this evidence, read in context, reveals a persistent problem, but nonetheless one which is limited to one area and a number of individual schemes within that area. I also accept that the evidence shows that after a request had been made for all records they appear by and large to have been supplied, especially since there is no evidence of any further complaints following the local management team meeting referred to in the evidence.
- 32.10 Amey also relies upon the evidence of Mr Felc who, under cross-examination, was taken to various minutes of various meetings in which reference was made to the absence of testing records for various surfacing schemes. Amey submits, and I accept, that the picture is one of a series of separate issues, as opposed to a consistent pattern of systematic non-provision of test records across 4 areas over the whole duration of the contract.
- 32.11 Amey also relies on the evidence of Mr Field, who in paragraph 33 of his witness statement and again in cross examination accepted that the amount of test records produced was far better later on in the contract than in the earlier stages.

- 32.12 Amey also relies upon the evidence of Mr Thompson who, under cross-examination, was referred to an email he wrote in January 2011, confirming that in his area (Copeland) he was reasonably happy that the test results were provided.
- 32.13 I accept that Cumbria's case as to the amount of test records produced ought to be considered in the context of this evidence.
- 32.14 Amey invites me to conclude that in the light of this Cumbria has failed to prove its case as to there being any non-compliance, and that the claim should be dismissed on that basis.
- 32.15 However in my view Cumbria is entitled to say that Amey ought to have performed its contractual obligations to produce and to retain the relevant test records, and also that it ought to have complied with its obligation to disclose the relevant test records in these proceedings, so as to demonstrate compliance with its contractual obligations. In my view Cumbria is also entitled to invite the court to conclude that where Amey has purported to do just that, in circumstances where the hard copy documents have been disclosed by being uploaded onto Relativity, and where there is no reason why the test results could not have been disclosed from searching the LMS system maintained by AEL, there is no proper basis for Amey to invite the court to assume that any shortfall in what has been produced can simply be overlooked on the basis that the court can make a finding, in the absence of evidence, that they were produced and provided at the time but that somehow, in some unexplained way, have been either lost or destroyed since or, if disclosed, not identified or collated either by Cumbria or by Amey in circumstances where that is not the fault of Amey.
- 32.16 On balance, and whilst recognising the force of Amey's arguments, I consider that in the circumstances the question as to what level of compliance Amey has demonstrated as to its contractual testing obligations ought properly to be answered by reference to the analysis which has been undertaken by Cumbria and, insofar as it has been done, by Amey, as to what has been disclosed in accordance with its disclosure obligations. In the circumstances I accept and prefer Cumbria's assessment as to the extent of Amey's production of test records. Insofar as that conclusion does not take into account the results of further disclosure made by Amey, then in my judgment it has only itself to blame, as Cumbria submitted in closing and as I accept, in failing to disclose those records when they should have done, and in failing to undertake an analysis of those records to demonstrate, if such be the case, that its performance was better than revealed by its original disclosure.

The time and cost of the testing which was required under the contract

- 32.17 There is a substantial dispute between the parties as to the estimated time for testing required. As appears from the further joint statement of the quantum experts, Cumbria says it would have taken 5,825.63 days, whereas Amey says it would have taken 1,634.5 days. This difference reflects the wide disparity between the parties as to how long it would have taken not only to undertake the physical testing process, but also to travel to and from site and to undertake the testing work at the laboratory to process and produce the appropriate

documentation. In similar manner, there is also a wide disparity between the parties as to the time it would have taken to undertake the testing which was carried out.

- 32.18 The quantum experts have been able to agree the time required for the actual testing process, but are unable to assist on the time it would have taken to undertake the remainder of the process. Although Amey submits that Cumbria has adduced no evidence as to the time the whole process would have taken, that ignores the evidence of Mr Field in his witness statement (paragraphs 41 – 45) in which he confirms, from his own experience, the times pleaded in Cumbria’s claim which, it appears, were produced by the team from JR Knowles who have been assisting Cumbria with this part of the claim. In closing submissions Cumbria observes that Mr Field was not cross-examined on this part of his witness statement; whilst this is true it is also right to record that Mr Field expressed his opinion in very general terms and furthermore, as he accepted in paragraph 9 of his witness statement, when he worked for the Amey laboratory he was very rarely sent out to site and, thus, cannot speak from direct experience as to travel times and the like. On balance, I am not satisfied that this limited evidence from Mr Field is a reliable platform for the assessment of a very significant claim in the absence of proper data or evidence. As Amey submits, it does not pass the “reality” test of comparing the cost of the testing said to have been required on this basis with the agreement reached between the quantum experts as to the cost of the testing which would have been required by reference to the schedule of rates items where testing was required under the contract.
- 32.19 However I am also unable to accept Amey’s figure based on Mr Taft’s assessment, since his assessment is taken from testing times alone, rather than including an assessment of the overall process, and is also subject to the flaws and the errors which were put to him in cross-examination and which are recorded by Cumbria in paragraphs 524 – 530 of its written closing submissions.
- 32.20 The question for the court is how, in the absence of a reliable figure either way, I can proceed to assess this claim. The answer, in my view, is provided by the alternative approach considered by the quantum experts, to which I now turn.
- 32.21 There are 3 principal issues between the quantum experts, which may be summarised as follows: (1) whether the quantification ought to be on the basis of actual or contract rates, i.e. what it would have cost Amey to undertake the testing it was required to do under the contract, or what it would have received under the contract for all that testing? (2) if the former, whilst the experts have agreed the daily rate which AEL would have charged Amey for testing, namely £301.15, there is a disagreement as to whether or not local area overhead should be added to that which, if so, produces an agreed inclusive rate of £389.15; (3) if the latter, whether the valuation should be on the basis only of the items where a specific allowance for testing has been included, or on all items where testing was reasonably required. Again the experts have agreed figures as figures, so that if it is the former, that produces a total valuation of £283,660.26 inclusive of mark-up, whereas if one values all items the valuation rises to £734,625.24.

- 32.22 As to the first issue, in my judgment the quantification ought to be on the basis of contract rates. That is because in my view the proper basis for the claim is the value to be ascribed to the contractual performance which ought to have been rendered, but was not. That ought, in this case, in my view, to be assessed by reference to what the contract provided in terms of payment, as opposed to the amount – if different – it would have cost Amey to provide that performance. The contract was placed on rates put forward by Cumbria, which were carefully considered and costed by Amey, and agreement reached. In my view there is no reason not to use those rates.
- 32.23 As to the second issue, whilst it follows that given my answer to the first issue this question is strictly irrelevant, if it had been relevant I would have concluded that the answer to the question depends on whether the claim should be based on what Amey is deemed to have charged Cumbria for testing, or the cost saved by Amey for not testing. If the former, it is apparent that the deemed charge would include the local area overhead comprised within the schedule of rates and, hence, that it should be added to the sum recoverable by Cumbria. If the latter, it is apparent that Amey would not have saved this local area overhead by not undertaking the full amount of the required testing, and it would only have saved the cost of AEL testing, so that it should not be added. (I appreciate that it could be said that some staff processing time might have been saved, but in the absence of evidence about this, there is no material upon which this could be assessed.) Thus, the true measure in my view would have been the charge including the local area overhead. That is because this is the true contractual “value” of the testing which has been and ought to have been undertaken by Amey, and for which Cumbria had paid.
- 32.24 As to the third issue, I can see no sensible basis for limiting the valuation to those items where testing is specifically included as an item. It is common ground that where testing is required Amey is deemed to have allowed for it in the schedule of rates. It follows in my view that it does not matter whether or not testing is specifically referred to or not, because it does not need to be in order for Amey’s schedule of rates items to have to include for it where, under appendix 1/5, it is required. A good example is given in Cumbria’s closing submissions at paragraph 495. It follows that I accept Cumbria’s figure.

Conclusion

- 32.25 By reference to the further joint statement of the quantum experts at page 21 and the following table, on my findings the outcome is that the second row is to be used, producing a tender value of £734,625.24, and the third column is to be used for the credit, producing a net claim of £597,778.64. It follows that I award Cumbria that net claim of £597,778.64 in relation to this element of schedule 3.
- 32.26 For completeness, I should also say that if I had needed to assess this claim by reference to actual times and costs, then the level of claim calculated on the above basis seems to me to be consistent in broad terms with the impression I have received from the evidence overall, and I would have awarded £600,000 as an assessment in broad terms of the claim on that basis.

33 **Schedule 5: street lighting overcharging**

- 33.1 I have already determined in section 7 above that part of the street lighting claim which falls within part 1 of Amey's claim and which is unaffected by this counterclaim. I now address the counterclaim. In short, Cumbria contends that Amey has been overpaid in relation to certain elements of the street lighting works and seeks to recover that overpayment in the total amount of £628,834.93, broken down as appears in the joint statement of the quantum experts.
- 33.2 By far the most significant issue is the "erect new" item, value £523,835.79. 2 further items, totalling £13,734.63 have been admitted by Amey, and the balance of £98,664.75 comprises 4 other remaining disputed items.
- 33.3 The resolution of the "erect new" item depends entirely on what, if any, effect should be given to a tender clarification issued by Mr Smith when he was employed by Cumbria and involved in the tender process. That is because Amey accepts that unless the tender clarification can be given effect the contract on its true construction has the effect that where a works instruction was placed to supply and install a new light, whilst that entitles Amey to claim the "erect new" rate and, in addition, the cost of the new lighting column, it does not entitle Amey to claim the cost of a new lantern as well; see the item coverage in the highways maintenance specification preamble to the schedule of rates. However, when a request for clarification was made about this during the tender process the unambiguous reply from Mr Smith, given as one of a number of replies to a number of disparate queries raised by tenderers, was that "the method of measurement for installing new does not include for the materials".
- 33.4 Although Cumbria has submitted that this reply is ambiguous, it seems to me to be completely clear and would, if effective, allow Amey to claim for the cost of supplying a new lantern in addition to payment for the "erect new" item.
- 33.5 I should also stress that no-one has questioned Mr Smith's good faith in answering the question in this way on behalf of his then employer, Cumbria. His answer simply reflected what had been long established practice at that time. Moreover, it would appear that until 2009 no-one questioned that this was how the contract should be operated.
- 33.6 The letter of reply from Mr Smith enclosing the tender clarification concluded as follows: "this amendment forms part of the contract documentation and you are required to base your responses accordingly".
- 33.7 However Cumbria relies upon the terms of the contract and the terms of the invitation to negotiate to seek to demonstrate that the answer is of no contractual effect. Thus Cumbria relies on clause 68.1 of the services agreement, which is a form of entire agreement provision. It should, however, be noted that it does not seek to exclude reliance on prior representations, or to define what "the contract and the documents referred to in it" are to comprise. Cumbria

also relies upon the invitation to negotiate which begins with a notice, on which Cumbria places reliance, which as material states:

“NOTICE

This Invitation to Negotiate ("ITN") has been prepared by [Cumbria]

The information contained in this ITN and all subsequent information provided pursuant to this ITN is provided under the terms of a Confidentiality Agreement that has been agreed signed and by and on behalf of the Bidder.

[Cumbria has] taken all reasonable care to ensure that the information provided is accurate in all material respects. However; the Bidder's attention is drawn to the fact that no representation, warranty or undertaking is given by [Cumbria] in respect of the information provided in respect of this transaction and/or any related transaction. [Cumbria does] not accept any responsibility for the fairness, accuracy or completeness of the information provided and shall not be liable for any loss or damage arising directly or indirectly as a result of reliance on this ITN or any subsequent communication. Only the express terms of any written contract for the provision of services, and/or supplies, as and when it is executed, shall have any legal effect in connection with the matters to which it relates.”

- 33.8 It seems to me that the effect of this notice is to provide, in the concluding sentence, that information provided in the invitation to negotiate and any subsequent information provided pursuant to it should only have legal effect if it is also part of the express terms of the subsequent written contract. Cumbria can therefore say that because the tender clarification was not stated to form part of the contract documentation, it has no legal effect.
- 33.9 However, in my view, there is a distinction between information provided in and pursuant to an invitation to negotiate on the one hand and a clear statement on the other that: (a) the terms of what was intended to become a contract document were to bear a particular meaning, regardless of whether or not that was the correct meaning of that intended contract document as a matter of contractual construction; (b) the contents of the tender clarification were to be treated as part of the contract documents.
- 33.10 Since the contract does not contain an exhaustive list of all documents stated to be contract documents, and indeed many of the documents which are accepted by both parties to be contract documents are only incorporated by reference, there seems to me to be no valid reason why the tender clarification should not be given effect, so that it is treated as a contract document for the purposes of clarifying the meaning of other contract documents, here the preamble. Furthermore, the tender clarification contained a clear representation to this effect, sufficient to found an estoppel, and I do not construe the terms of the notice as having the effect that Amey is not entitled to place reliance upon that representation which, as I have said, does not in my view fall within the scope of the “information” referred to in that notice.
- 33.11 It is apparent that Amey entered into the contract in reliance upon the contents of the tender clarification, and undertook the relevant work, making applications for payment, and receiving payments, on the basis of the understanding contained in the tender clarification. As I have said, no point was taken by Cumbria about this until 2009, and even then no action was

taken until 2012, when Mr Robinson used this as a means of making a deduction from the final payments due to Amey and to include it as a counterclaim. In the circumstances, in my view Amey is right to say that an estoppel arises, in that Cumbria is estopped both from contending that the relevant clause of the preamble should be read otherwise than as amended by the tender clarification, and from contending that the tender clarification is not a contract document.

- 33.12 It follows that I find against Cumbria on this issue.
- 33.13 The next item in dispute relates to a dayworks charge, where the claim value is £16,786.70. The issue is whether a change, made at a meeting in June 2011, to correct a previous erroneous method of charging by Amey, should apply only for the future, or should have retrospective effect. In cross-examination Mr Collins was referred to the minute of the meeting, prepared by someone who was then employed by Amey, which said that there should be an investigation into “historic payments”. I agree with Cumbria that this is inconsistent with Amey’s case that it was agreed at the meeting that the amendment was only to be applied prospectively. In the circumstances, there is no basis for Amey to resist Cumbria’s argument that the change should have retrospective effect and, hence, I find for Cumbria on this item.
- 33.14 The next item in dispute relates to ducting and service chambers, where the claim value is £12,307.35. The issue here is whether a particular schedule of rates item was inclusive of ducting and service chambers. Having read and considered the views expressed by Mr Taft on this issue, I am satisfied that the interpretation which he puts forward is the correct one. In the circumstances I find for Amey on this item.
- 33.15 The next item in dispute relates to materials for jointing kits, where the claim value is £21,134.87. The issue here is whether the jointing kit was claimed for and paid twice in error, on the basis that it fell within the scope of materials included within the scope of the work to be done. However Amey’s case is that when it was needed it was ordered specifically under a works instruction, for which Amey was then paid. In my view it is not now open to Cumbria to seek to go behind these works instructions, issued at the time, with the result that I find for Amey on this item.
- 33.16 The next item in dispute relates to disconnection of employer’s cable, where the claim value is £43,482.42. The issue here is whether or not the disconnection works are included within the rate item. I agree, by reference to the preamble upon which Cumbria relies, that it is included and, hence, that Cumbria succeeds in relation to this item.
- 33.17 The final item in dispute is referred to as “take up or down”, where the claim value is £18,688.05. The issue here is whether the removal of lanterns was included within the rate. I agree, by reference to the preamble upon which Cumbria relies, and to which the tender clarification does not apply, that it was included, and hence that Cumbria succeeds in relation to this item.

33.18 The end result is that Cumbria succeeds as to the dayworks charge, the disconnection of employer's cable and the take up or down. The experts are agreed that the appropriate figure to be deducted as a result of the above determination is £92,691.80.

34 **Schedule 7: notified defects outstanding**

34.1 As I have already said on a number of occasions, this is a claim in relation to notified defects outstanding. The value of this claim is now said by Mr Dale to be £818,905.40.

34.2 The claim is pleaded as being made under clause 34 of the highways special conditions, to which I have already made reference. In short, if Cumbria can establish that there are defects, which have not been corrected within the specified time for notification, then it is entitled to the cost as assessed by the project manager of having the defect corrected by other people. However, as I have already said, in my view it must be a cost which is reasonable in all of the circumstances, not least because the contract envisaged that the cost would be assessed by the project manager as a representative of the overseeing organisation who could, thus, be trusted to act in an independent and a reasonable manner.

34.3 Appendix A to schedule 7 contains 84 separate items from an original schedule of defects containing 211 items, with the original item numbers being retained. The first 82 items come from the original item numbers 1 – 209, and are the items from the original schedule of defects provided to Amey which Cumbria says have not been remedied by Amey. They are specified by works instruction, providing details of the alleged defect and breach, the date of notification, the remedial action required and the cost claimed. According to Cumbria's opening (paragraphs 952 – 956) there are 37 such claims valued in excess of £2000 and 41 such claims valued below £2000. (It appears that this summary excludes items 2 and 18 – 20, which have been included within item 210.)

34.4 Items 210 and 211 are claims for various surface dressing defects arising in the contract years 4, 5, 6 and 7 (item 210) and year 3 (item 211). Item 211 is a claim for what Cumbria says was a contribution of £80,000 which Amey agreed to make in relation to defects in year 3, whereas item 210 is a claim for remedial works of £295,000, comprising 70 separate items, of which some limited details are to be found in attachment (iii) to schedule 7.

34.5 Amey's pleaded defence to this claim is at paragraphs 924 – 934 of the amended reply and amended defence to amended counterclaim, and in a supporting schedule entitled "consolidated defects summary". It was made clear from the defence that, save to the extent that Amey made specific admissions as to specific items, the claims were disputed and were required to be proved. It was also noted in the amended version that Cumbria had not provided any response or comment to the consolidated defects summary which had been served with the original version. The consolidated defects summary contains detailed comments on individual items 1 – 209, in relation to liability, causation and quantum. In summary a number (34) are admitted, although the amount claimed is disputed, and the remainder are all disputed. The overview is that £501,511.67 is claimed, whereas only £38,452.97 is admitted. However the quantum experts have reached further agreement on a

figures as figures basis, recorded in section 7 of their further joint statement, reflecting the variables in relation to the issues in dispute between the parties.

- 34.6 As regards item 210, Amey did not respond separately to the 70 individual allegations in its consolidated defects summary. Instead, it said that it had made its position clear in a letter dated 17 May 2012, and accepted a liability for £94,801.46 for years 5 and 6. It did not, however, specifically address the claims for years 4 (although this comprises only one modest value claim anyway) or 7 (more significant, since there are 12 claims valued at around £150,000). As regards item 211, Amey contended that it had no liability, having performed its side of the agreement by undertaking remedial works, and claimed to be due a further contribution from Cumbria in the sum of £17,456.
- 34.7 Cumbria has not served a reply to the consolidated defects summary, nor has it addressed the points made in relation to items 1 – 209 in its evidence.
- 34.8 In its opening written submissions Amey set out in some detail (paragraphs 488 and following) the development of this claim and, in particular, how the number of items and values claimed has fluctuated dramatically over the course of the last stages of the contract and the subsequent stages of the dispute. It also refers in some detail to what it contends are the inconsistencies as regards these claims, both as developed and when considered alongside the schedule 2 and 3 claims. It invites me to view this claim with some scepticism in such circumstances. Having considered what is said, and the cross-examination of Mr Robinson and Mr Roper in particular in relation to these matters, I have considerable sympathy with these arguments.
- 34.9 The evidential basis for items 1 – 209 was explained by Mr Roper in paragraph 67 – 79 of his first witness statement. In summary, the position as he explained it and as it appears to me is as follows.
- 34.10 Towards the end of the contract Mr Roper and Ms Sykes compiled a combined list of what Cumbria believed were outstanding unremedied defects, and presented that list to Amey. That list included claims for rectification costs which had been “calculated by the local engineers”. There were two parts to the list, one where Amey was still within the 52 week defect rectification period, and the other where that period had already passed. It appears that Amey responded to the post 52 week list, identifying those defects with which it agreed and their indicated remedial value, those with which it disagreed, and those where more information was needed.
- 34.11 From 2012 – 2014 the defects list was left with two Cumbria employees to work on, neither of whom has given evidence, who apparently presented a “complete catalogue of defects” to the claim project team. Mr Roper carried out some investigation into the top 10 by value, and produced evidence packs in relation to each defect, including the original defect notice sheets and photographs. He says that “an inspector”, who has not been identified, provided a “view” as to the necessary remedial works, and “a valuation was calculated based on that advice”, although again he does not state who provided that valuation or how it was done.

- 34.12 Mr Roper accepted that he had no personal knowledge of these defects, and that the original notices were issued by various Capita employees, “many of whom are no longer employed by Cumbria”. When this point was put to him in cross-examination, by reference to item 41 (Market Street, Barrow), he said that he would have to rely upon the opinion of the Capita engineer who originally raised the defect, a Mr Manser, but had to accept that there was no evidence from that engineer and no comment from him, or anyone else, in response to the points raised by Amey both pre-action and in the consolidated defects summary. He accepted that the position was the same in relation to all of the individual items. In re-examination Mrs Pigott attempted to salvage the position by asking him to confirm, which he was happy to do, that he was unaware of Amey having provided any documentation to support its defence case in relation to that particular item.
- 34.13 It is worth noting, since this is one of only two of the 82 defects specifically addressed in the course of the oral evidence at trial, that this item relates to surface dressing work dating from 2010, notified later that year, where 11 separate defects were complained of, but where no remedial works had been done at the time it was re-inspected in 2014. Amey has accepted some liability for defects of approximately £3,000, as against a claim of approximately £11,000. It is also worth noting that the points made by Amey in contesting liability for the full amount of the claim are not, in my view, obviously bad points, so that it must have been apparent to Cumbria, in preparing this case for trial having seen Amey’s consolidated defects schedule, that in order to address them it would need to marshal the evidence, and present its case in a responsive schedule and/or in evidence. Thus, taking item 41 as an example, if Mr Manser was not ready, willing or able to address the issues raised then someone else, whether the inspector who apparently revisited in 2014, or someone else with suitable knowledge, would need to address the issues raised. No attempt, however, has been made by Cumbria to do so, whether in this case or in the other cases, save to the limited extent referred to below, and no explanation has been offered as to why that was not done.
- 34.14 I entirely accept that Amey has failed to provide anything very much in the way of any detailed evidential response, beyond what is contained in the consolidated defects schedule, to the detail of these allegations. Instead it has chosen to rely on a relatively high level defence that: (a) defects of this nature were all adequately addressed through the defects resolution procedure save for the final year, when Cumbria unilaterally reneged on that procedure; (b) the quantification claims are all overstated, and should be assessed by reference to Amey’s rates as opposed to the framework contractors rates. However, since these are Cumbria’s claims, it is a statement of the obvious that ultimately the burden of proof lies upon Cumbria, and if it fails to adduce adequate evidence or otherwise to persuade me that what is said by Amey in its defence is wrong and can be rejected on the balance of probabilities, then it cannot succeed above and beyond what has been conceded by Amey.
- 34.15 The further unexplained and significant omission in this regard relates to Cumbria’s failure to ensure that schedule 7 was addressed in any detailed way by its paving expert. There is no indication one way or another whether or not Professor Knapton’s predecessor, Professor Walsh, had been instructed to or had given any expert opinion as to the detail of schedule 7

before his replacement by Professor Knapton in July 2015; if he had there is no reference to it in Cumbria's case, nor reliance placed upon it. It appears from Professor Knapton's principal November 2015 report that he was appointed to act as Cumbria's liability expert for the schedule 7 claim as well as the schedules 2 and 3 claims and, indeed he addresses schedule 7 in section 6 of his report. However the most that he says in terms of expressing any opinion is at paragraphs 6.2 and 9.135. At paragraph 6.2 he says that:

“From my reading of the Scott Schedule referred to in paragraph 7, I confirm that I agree that each of the Uncorrected Defects Claims appears to be a valid claim. Trevor Capstick's witness statement, which I deal with at paragraphs 9.133 to 9.135 provides detailed comments on this matter. From paragraph 40 of his witness statement onwards Mr Capstick describes 70 outstanding surface dressing defect claims covering the period 2008 to 2012 and concludes that the quantum for repair works is £295,214.85.”

At paragraph 9.135 he states that:

“From my review of Mr Capstick's witness statement, I have found support for my opinion that the schedule 7 claims are valid from a technical standpoint.”

- 34.16 Professor Knapton does not even refer to, let alone address, Amey's consolidated defects summary. His consideration of schedule 7 seems to me to be the most cursory of considerations that could be envisaged. I do not consider that Cumbria is entitled to place any reliance upon this statement of opinion, contrary to what Cumbria submitted in paragraph 591 of its closing submissions. Whilst I accept that it may well be that this is a consequence of Professor Knapton's late instruction and consequential timing difficulties, nonetheless in my view it is a statement of opinion which is of no assistance at all to me in resolving the schedule 7 dispute, and that it would have been much better if Professor Knapton had admitted, openly and frankly, that he had been unable in the time available to him to undertake any proper investigation of the schedule 7 claims and, hence, was unable to offer any useful opinion upon them.
- 34.17 I do accept that Mr Griffiths was not even instructed to consider the schedule 7 claim, so that Amey does not have any expert evidence in relation to this claim either, but nonetheless the position remains that I must seek to determine these allegations without the benefit of any expert evidence from Cumbria upon which it can place any reliance.
- 34.18 It is also relevant that Cumbria, as the highways authority responsible for these roads, has not according to Mr Roper undertaken any remedial works to any of the 82 allegedly outstanding defects falling within the original items 1 – 209. When asked why he explained that it was a matter for the Highways Department as to which works were undertaken and, since he was not part of the Highways Department and had not made any enquiry of them, he did not know whether or not they had done so, or planned to do so. He accepted that it was not Cumbria's case that the defects complained of necessarily made the roads unsafe. In my view the only sensible inference which can be drawn is that as a highways authority Cumbria has decided that it is not necessary to undertake any particular remedial works in relation to these defects.

It appears that they are subject to the same regime of inspection and, where necessary, maintenance or repair as the other areas of highway within Cumbria, where it would appear that roads are inspected with a regularity of anything between once a month and once a year. In the absence of any evidence of repairs being undertaken, it is reasonable to assume that the highways inspectors undertaking inspections of these areas of these roads have decided that the defects are not sufficiently serious to justify repair. Whether they will be worked on, by repair or otherwise, in the future, in advance of the time when they might otherwise have been repaired or worked on even if the defect was not present, must be a matter of pure conjecture in those circumstances.

Item 1

- 34.19 The other individual item referred to in oral evidence was item 1. The pleaded allegation is that the sub-base material failed on testing as regards its grading and its plasticity, but that instead of seeking to replace the sub-base Cumbria was claiming the cost of monitoring over the 20 year lifespan of the sub-base. Amey's response did not admit that there was a breach, but it was also contended that there would be no need for Cumbria to undertake any monitoring beyond the normal highways inspection process, in circumstances where since the sub-base had been laid in 2008 there had been no evidence of any deterioration. Amey also contended that Cumbria had failed to demonstrate any loss.
- 34.20 Mr Johnson was cross-examined on this item, since he had addressed it in paragraph 14 of his second witness statement, recording that although Mr Melville had wanted to replace the sub-base, even though that would have caused major inconvenience, given its location near to the entrance to a hospital, he had been overruled by John Robinson, who had accepted Amey's proposal for monitoring to be carried out by Amey and by the materials supplier, Cemex. Mr Johnson also said that "ultimately the decision was proved correct, because the patch did not suffer. I still keep an eye out for it, and when I was in the area recently it was looking fine".
- 34.21 The original defect notice had been produced by a Mr Dodds, who had simply recorded it as being a "material failure", and Amey's stated reason for not accepting it as a defect was that it was being monitored, in circumstances where it appeared that the test reports undertaken had demonstrated that the material was not compliant, but that there was no evidence of any actual defect resulting. Furthermore, in a defects list subsequently provided by Mr Collins, it was said that monitoring was being undertaken by Cemex, and that the surface had since been micro asphalted over.
- 34.22 It is clear that at the time both parties were proceeding upon the basis that there was no justification for remedial works unless or until the non-compliant sub-base caused some failure, and that in the meantime all that was required was monitoring. Indeed that is still Cumbria's position. There is no evidence from anyone that the non-compliant sub-base has in fact caused a failure, or even a material risk of increased failure. There is no evidence from Cumbria that it has in fact been undertaking a monitoring programme in relation to this area of road in any way different from or additional to that which it would undertake in any event

in its role as highways authority. It follows, in my view, that there is no evidence that Cumbria has actually suffered, or will suffer, any of the pleaded loss or damage.

- 34.23 Cumbria was clearly on notice that it would need to prove its claim in these respects, but failed to take any active steps to do so. I am satisfied on the balance of probabilities that this is because Cumbria has not undertaken any additional monitoring, and is unable to point to any loss or damage. In the circumstances whilst I would be prepared on the available evidence to accept that Cumbria has established a breach of contract by Amey, it has failed to establish any claim for loss or damage. Indeed the claim as advanced was clearly made in the face of what I am satisfied was a previous agreement, made by John Robinson on behalf of Cumbria, that it would be sufficient for Amey and Cemex to monitor the patch. In short, I am satisfied that this is a bad claim.
- 34.24 In its closing submissions Cumbria referred to this item (paragraphs 571 – 575), but did not engage with these difficulties. It appears to argue that it would have been entitled to have replaced the bed in any event, due to the materials failure, relying upon the general provision in the specification for highways works, but it does not seem to me that this advances Cumbria’s case, because: (1) this is not pleaded as a claim for replacement; (2) the section relied upon is concerned with horizontal alignment and surface levels and regularity, as opposed to a non-compliant sub-base; and (3) most importantly, because even if it was applicable I am wholly unpersuaded that this general statement of what is required in terms of rectification of a non-compliant pavement area can be taken to mean that Cumbria is entitled to insist on rectification in strict accordance with the specification in every case, regardless of the individual circumstances.
- 34.25 This examination of this individual claim illustrates that, as is typical of defects claims such as those in schedule 7, each individual claim has its own individual story, with its own individual arguments, all of which require elucidation through relevant evidence, documentary and witness, factual and expert, with cross-examination as reasonably necessary, in order for a fair decision to be made on each.
- 34.26 In its closing submissions (paragraph 567 and continuing) Cumbria invites me to “review the claimant’s schedule and make findings on liability”. It has, as it says, printed out the evidence packs referred to by Mr Roper in his evidence to assist me. The evidence packs run to 7 separate lever arch files of material.
- 34.27 However in its closing submissions Cumbria refers expressly only to 4 of these items, namely item 1 (above), and items 7, 25 and 204.

Item 7

- 34.28 In its closing submissions (paragraph 576) Cumbria presented this as being solely an argument about quantum, whether the remedial works should be valued at the framework contractor rates or at Amey’s rates. However, whilst it is true that Mr Taft in the schedule to which Cumbria refers does say that “Amey accepts this defect”, in fact it is apparent from

Amey's pleaded case that it does not accept this as a defect, and I am not aware that this response has been formally withdrawn or amended in line with what Mr Taft has said. What the schedules served by the parties, and the supporting evidence pack produced by Cumbria, reveal is that remedial works were undertaken in response to the original defects sheet, but a further complaint was then made about chipping loss in some areas, which Amey proposed should be monitored for 12 months. There was then a further inspection and report by Mr Field in summer 2010, which recommended replacement of 1 area, but nothing further was done until the site was re-inspected and a further report produced by Mr Field in early 2014, which did not in terms recommend replacement, describing it as a "maintenance issue which will need to be addressed sooner than anticipated".

- 34.29 Amey's case, as pleaded in its schedule, was that this report had not been provided to it, so that it was unable to comment. It is plain, in my view, that it was not admitting the claim, and its assessment of the cost of remedial works based on its rates was being put forward on a figures as figures basis, not as an unqualified admission.
- 34.30 The defect summary produced by some unidentified person appears to have anticipated that Mr Field would re-inspect, but there is no evidence that he has done so. He was called by Cumbria as a witness, but his witness statement does not address this claim.
- 34.31 The claim for remedial works and costs appears to be made on the basis of an assessment from December 2008, which on any view is out of date in that it takes no account of developments since then, notably the 2 inspections and reports by Mr Field.
- 34.32 In the context of schedule 7, this is a significant claim, on Cumbria's case valued at £20,650, and in my view the way in which Cumbria has gone about pleading and seeking to prove this claim is wholly insufficient. In my view this claim has not been established on the balance of probabilities, and I would not allow anything for it, save to the extent that Amey may have actually included the figures as figures financial assessment in the global amount admitted by reference to the updated joint report of the quantum experts, and it is not clear to me without checking the arithmetic whether or not they have done so.

Item 25

- 34.33 The issue here is solely as to the amount of remedial patching required. Amey pleaded that 10 m² is all that is necessary, and allowed £1,187.66 for it. Cumbria has not responded to this point, since as I have said there is no schedule in response, or witness evidence or expert evidence to address it. It is not possible for me to conclude the issue in Cumbria's favour by reading the evidence pack, as I am invited to do, not without at least the benefit of some written submission by Cumbria as to why Amey's case is evidently wrong and may be rejected even without evidence to the contrary from Cumbria. In the circumstances, on the balance of probabilities I am unable to conclude that Cumbria has established that any more than what is accepted by Amey is due.

Item 204

- 34.34 This is a surfacing case dating from 2011, where the claim is that the depth was not as specified, and the surface course had become de-bonded, indicating that no tack coat had been applied. It is a significant claim, approximately £82,000.
- 34.35 Amey's pleaded response is that the original defects notice related to road markings, which were attended to, and that this complaint was first made in the pre-action protocol counterclaim in April 2013, well outside the defect notification period. Amey also contends that no further action is required or necessary.
- 34.36 Cumbria contends that the complaint was first made in October 2012, referring me to paragraph 47 of Andrew Harrison's witness statement where he refers, without identifying the site as being the subject of this claim, to a series of emails which do relate to this site. The final email in the series ends on 7 December 2012 with Cumbria saying that unless Amey agreed to do so it would arrange for the site to be core tested to prove its case. However, whilst it is apparent that Amey did not agree to undertake coring, there is no evidence that Cumbria has done so either, and there is no evidence from Mr Harrison in his witness statement or from any other source to disprove what Amey was saying at the time.
- 34.37 In the circumstances, whilst I accept that Amey's non-notification point is not a good one, since the defect does appear to have been first notified in October 2012, nonetheless that does not derogate from the need for Cumbria to prove its own case as to liability, causation and quantum, and on the evidence available to me it has failed to do so. In the absence of evidence from Cumbria, or in the absence of a detailed submission addressing the points made in the emails and demonstrating that they are self-evidently wrong, I am unable to conclude that Cumbria has established that this is a defect for which Amey is responsible. Again, for a claim said to be worth approximately £82,000, the time and effort put in by Cumbria to substantiate this claim is wholly inadequate. In its closing submissions (paragraph 583) Cumbria suggests that Amey's response is itself a breach of condition 9.7 of the services agreement. However that clause only applies where Amey has failed to meet a contract standard, whereas Amey's response in the emails referred to is that it did not accept that this had been proved on the evidence provided.

The remaining items in series 1 – 209

- 34.38 As I have said, Cumbria invites me to work my way through the schedules and the evidence packs for the remainder of the items in dispute and to reach my own conclusions on the evidence. I am satisfied that this is not an invitation to which I should accede. As I have already said, Cumbria has chosen to advance a substantial case without responding to the schedule produced by Amey, without obtaining factual evidence in relation to each item in order to prove its case and disprove the points made by Amey (or even to explain why it has not done so), without obtaining expert evidence to establish these claims, without investigating them in cross-examination at trial, and without having made submissions in opening or closing on any of them save for the items referred to above.

- 34.39 In the circumstances, I do not consider that I have the necessary material which would enable me to reach a proper decision by reference to each individual item through a focused examination of the schedules and the evidence packs, with the benefit of submissions to guide me. I made it plain to both sides before closing written submissions that I was not prepared to assume the obligation of concluding the trial in my own room on the papers without the benefit, at the very least, of closing submissions which identified each and every material finding which each party might wish me to make in relation to the live issues in the case. It does not seem to me to be part of the judicial function to undertake an exercise of the kind urged upon me by Cumbria, unless the court had already been asked and had acceded to an invitation to do so as part of the case management process. Indeed in my view it would be unjust to Amey to do so, since there would be the danger of my making findings against Amey which it had not had any prior opportunity to address. At one stage in the trial Mr Bowdery had suggested that if I was so minded I could direct the experts to appear before me and conduct some further inquisitorial concurrent expert evidence procedure in relation to each of the individual allegations. That suggestion was firmly resisted by Mr Streatfeild-James for a number of good reasons, not least because neither Professor Knapton nor Mr Griffiths has previously expressed any opinion at all on these individual allegations.
- 34.40 I strongly suspect that Cumbria has proceeded to trial under the misapprehension that it was sufficient for it simply to establish that these items had been notified as defects, to produce the defects register and, where available, the defects inspection sheets, to rely upon the fact that they had not been remedied, and to have Mr Roper confirm them in his evidence in general terms. In my view, however, that was plainly not sufficient in the light of Amey's pleaded case. Cumbria might have chosen to cross-examine Mr Collins and Mr Johnson and any other relevant Amey witnesses, and to have made detailed submissions in relation to all or at least a sufficient number of the individual items to satisfy me that it had proved its case on the balance of probabilities. That, however, would have involved making a choice as to how it would allocate its overall time for cross-examination and closing submissions. I suspect that Cumbria took a conscious decision to spend more time and resource on what it regarded as the more valuable schedule 2 and 3 claims, as opposed to undertaking the time consuming task of proving its case in relation to the individual items within schedule 7. As it has turned out, on the basis of my judgment on the schedule 2 and 3 counterclaims, that was an error. As Mr Streatfeild-James said in submissions, the reality of this case is that insofar as it was a defects case it could and should have been approached by Cumbria on a straightforward individual defects basis, with proper Scott schedules and supporting evidence, including expert evidence. But Cumbria chose to go for broke on the big value extrapolated claims and at the same time neglected the fundamental requirement to prove its case on the schedule 7 claim on an item by item basis, and cannot now rescue itself from the consequences of that decision.
- 34.41 The only issue which has been properly addressed by Cumbria and properly investigated at trial is the issue of the appropriate rates for remedial costs. That issue is one which does arise in relation to those items where Amey has admitted liability but contested the remedial costs claimed, and I assess it below. However, otherwise I am satisfied that Cumbria has not

discharged the burden of proving its claims on the balance of probabilities above and beyond what Amey has conceded in its schedule.

Items 210 and 211

- 34.42 As I have said, the details of the item 210 claim are to be found in attachment (iii). This identifies the works instruction and location, the defect type complained of (see also paragraphs 21 – 23 of Mr Capstick’s first witness statement, explaining the 4 different types of defects), the area of proposed remedial works, and the remedial costs claimed by reference to the claimed rate, together with preliminaries and traffic management. However the schedule does not provide details of the individual defect, whether by reference to a defects sheet or otherwise, or explain why it is necessary or appropriate to undertake a full resurfacing by reason of those defects.
- 34.43 Mr Capstick did provide further details of these claims in his first witness statement (paragraphs 40 – 324). However in paragraph 25 he accepted that he gave this evidence “not as an expert, but as one of the people responsible for inspections and issuing defects notices”. What he did was to refer to the visual assessment sheet, summarise the conclusion of that sheet, explain what the contract tolerance would have been for the defect complained of, and state the total remedial cost claimed. What he did not do is to provide any supporting detail in relation to those sites which he personally inspected. Indeed he accepted in paragraph 36 that “some but not all of these sites were inspected by me personally”. He did not explain how many were inspected by him personally. Cumbria has not adduced evidence from the inspectors who inspected the other sites, from the inspectors who issued the defects notices, or from those who assessed the remedial schemes and provided details as to the remedial costs claimed.
- 34.44 In paragraphs 28 – 35 Mr Capstick provided some more explanation as to the remedial costs claimed, saying that in relation to items 58 and 59, which he is satisfied related to sites which were “complete failures”, the claimed cost is for Amey’s original quoted costs, inclusive of traffic management, of £66,000 and £27,000 respectively, and explaining the justification for what appears to be a standard traffic management charge of £500.
- 34.45 Mr Capstick was subject to detailed cross-examination on day 22. In summary, the position as appeared from the documents to which he was referred is as follows: (1) in relation to year 4, there was only one claim, item 1, claim value around £3,000; (2) in relation to year 5, there are 39 claims, items 2 – 40, total value around £83,000; (3) in relation to year 6, there are 16 claims, items 41 – 56, total value around £42,000; (4) in relation to year 7, there are 12 claims, items 57 – 68, total value around £154,000; (5) items 69 and 70 are, as explained by Mr Capstick in paragraphs 319 – 324 of his witness statement, items 2 and 18 – 20 respectively of schedule 7 attachment A, but which are included here as well as patching and surface dressing defects.
- 34.46 As regards item 211, it is common ground that there were problems in year 3, which led to a report by Capita identifying areas of fault on all 3 sides, Amey, Cumbria and Capita, and

recommending a process for identifying appropriate remedial works, agreeing when and how such remedial works should be undertaken, and also suggesting improvements for the future. As Mr Capstick agreed, surface dressing was not a science, so that it was always likely that there would be failures which would need to be investigated, responsibility allocated, and remedial works agreed and undertaken. It is apparent from this evidence that these claims are fact sensitive; it would not be sufficient for Cumbria simply to point to the fact that surface dressing works were outside tolerance and thus, without the need for further enquiry, something for which Amey was undoubtedly and unarguably responsible.

- 34.47 It is common ground that agreement was duly reached, with remedial works to be carried out in 2 separate tranches in 2008 and in 2009, with agreement also being reached as to the estimated costs of those remedial works and as to how those costs should be divided as between the 3 organisations.
- 34.48 Mr Capstick agreed that, contrary to what he had suggested in paragraph 327 of his witness statement, the contemporaneous documents indicated that the 2008 remedial works were undertaken by Amey, with works instruction D400158 being issued to cover the cost net of Amey's contribution, which was subsequently recorded as having been finalised – indicating that the works were approved by Capita as complete – and paid by Cumbria, and he also agreed that he had no recollection of being made aware at the time of any complaint that Amey had not undertaken the works. It appears that the first time an allegation was made that the works had not been done was in 2012, when it appears to have been raised by Cumbria in a commercial claims meeting but, so it would appear, on the basis of a misunderstanding as to the terms of the previous agreement. I am satisfied in the circumstances that there is no basis for Cumbria succeeding in relation to this part of the claim.
- 34.49 Mr Capstick was also asked about Amey's claim to be entitled to payment of the balance due to it for the works carried out, pleaded as being £17,000, but said in cross-examination to be only £5,471. However in cross-examination of Mr Taft it was noted that although the works instruction referred to £125,000 an interrogation of SAP in relation to that works instruction does not correlate that work to that value was booked to SAP in relation to that works instruction. Whilst I am satisfied that this is irrelevant to Amey's defence to this claim, and it may well be that it is simply a consequence of the way in which costs were recorded on SAP, nonetheless in all the circumstances I am satisfied that Amey has failed to prove its entitlement to any further payment, in circumstances where this appears only to have been raised as a response to the claim advanced by Cumbria.
- 34.50 In relation to the tranche of remedial works agreed to be undertaken in 2009, the evidence indicates that all of the works other than to the A592 at Fell Foot were undertaken, and that the only reason that this work was not undertaken was because of a genuine concern being expressed by Amey as to whether or not the remedial works being proposed were suitable. It also appears that this issue was never resolved because it became tied in with disputes about the claims and counterclaims in the subsequent years. It is also right to record however that the documents referred to in cross-examination of Mr Robinson and his evidence also indicated that at least a part of the problem was Amey's failure to schedule the remedial

works to be done sufficiently early in the 2009 season. Accordingly, in my view there is no reason why Amey should not be held to its original agreement to make its contribution to this work, which would appear from the document referred to in cross-examination [JA11/317] to be £15,551.

- 34.51 In relation to the subsequent years, a process was produced by Mr O Farrell and put in place, involving joint inspections of any alleged defects, with a view to reaching agreement on who was responsible, what remedial works were necessary and their cost, and how the cost should be divided. Whatever the precise contractual status of this agreement, it appears that it was implemented and worked reasonably well, with Mr Capstick dealing with it on behalf of Capita, and a Mr McCarron, subsequently replaced by Mr Johnson, dealing with it on behalf of Amey, being able to reach agreements in relation to many items, until it also became tied in with the other disputes about the other claims and counterclaims in 2011.
- 34.52 It is surprising that there was no reference made by Mr Capstick to this process in his witness statement. Furthermore, as I have said there is no reference in his witness statement or in the documents to which he refers in his witness statement to there having been any assessment as to whether or not the defects complained of are ones for which Amey was responsible and, if so, why.
- 34.53 Mr Capstick was taken briefly to claim 1, being the only claim for year 4. The work was done in 2008, and in March 2013 it was recorded that there was some fretting and stripping requiring replacement of an affected area, said to be 1,020 m². Mr Capstick had said nothing in his witness statement as to why this claim was properly made against Amey, even though he appeared to have inspected site in March 2013. All that he said was that because the depth of fretting when inspected by him was outside the contract tolerance Amey was in breach, but of course the contract tolerance requirement only applies as at the time of laying, not – as here – approaching 5 years later. It follows, in my view, that this evidence by itself is not sufficient to prove Cumbria’s case.
- 34.54 Mr Capstick was also taken briefly to claim 2, used as an example for the other claims. The work was done in 2009, and fretting was recorded in a sheet produced following a joint inspection in June 2010, but no further agreement was reached either as to the cause or any remedial works and in March 2011 Amey refuted any responsibility. Again, Mr Capstick’s approach in his witness statement was simply to observe that the tolerance for fretting was only 6%, so that since 15% fretting had been recorded that was sufficient to establish liability. However, in my view, that is not sufficient to prove the case on the balance of probabilities, when the inspection occurred a year after the surface was laid, with a harsh winter supervening. It is also of note that although this claim had originally been valued at £1,500 plus traffic management, the claimed value is now much less, £600 including traffic management, and neither Mr Capstick nor anyone else from Cumbria was able to assist as to the basis upon which this reduction had been made.
- 34.55 As regards year 5, it appears that the argument only involves £10,000, because Amey accepts that there was an agreement reached for a contribution of £72,000. The documentation

produced revealed that Capita had put forward what was a very substantial sum, in excess of £900,000, which had then been reduced down very significantly in the course of negotiations between Mr Capstick and Mr Johnson. It would appear that the claim then became caught up in the other disputes, and there is no conclusive evidence in my view that a firm or final agreement was ever reached in relation to the figure of £72,104 put forward by Amey. It would appear to follow that Cumbria would have to prove its claim and, but for the admission by Amey as to £72,104, it might have had difficulty in doing so, given the lack of supporting evidence. However, perhaps fortuitously for Cumbria, it is entitled to rely on Amey's part admission and, therefore, succeeds but only in that sum.

- 34.56 As regards year 6, a similar issue arises, where Cumbria's claim is for £42,000 against an amount admitted by Amey of £22,696.67. Again, given the lack of evidence adduced by Cumbria, in my view it has not been able to establish that Amey is liable beyond the amount admitted.
- 34.57 As regards year 7, because of the wider difficulties experienced towards the end of the contract, there were no joint inspections and hence no agreement. It is unclear whether or not the figures were produced by Mr Capstick and then revised by someone else, or whether they were produced by someone else from the outset but, as Mr Streatfeild-James put it in cross-examination, if they had been produced by Mr Capstick then the overwhelming likelihood, given the way in which he had previously put forward very large claims but agreed to negotiate them down quite considerably, is that if the previous process had been implemented in relation to this year agreement would have been reached but in a significantly smaller amount than the original claim. In relation to year 7 there are a smaller number of larger value claims. The first, item 57, was not prepared by Mr Capstick, but by a Mr Dodds, who is not giving evidence, on the basis of an inspection 3 years after the event. The second, item 58, was produced by Mr Capstick but, as he accepts, he was not being called to give expert evidence as to the nature or cause of the defect or the extent of any necessary remedial work or costs, in circumstances where the basis of the claim is that the whole surfacing bed has failed. On closer analysis it appeared that the cost had been taken simply from Amey's original cost estimate. The third, item 59, was of a similar nature.
- 34.58 As I have said, these are relatively substantial items, and in my view it is particularly unacceptable that Cumbria has come to trial armed with no proper factual or expert evidence as to the cause of these defects, whether or not they are matters for which Amey is responsible, the remedial works or the remedial costs, but nonetheless inviting the court to award substantial amounts against Amey. Cumbria, however, submits with some justification that it is unfair to criticise it in relation to these items, in circumstances where Amey failed to plead a positive case as regards item 210 in relation to year 7. I accept this as a submission. Nonetheless it is also right to record that Cumbria's pleaded case on these, set out in attachment (iii), was sparse to say the least, and there was no basis for Cumbria to have proceeded to trial in the assumption that these claims were, effectively, admitted. It is clear from Amey's pleaded case that it was not making any admissions, so that Cumbria was required to prove its case, particularly in circumstances where in relation to year 7 Cumbria had, Amey was saying, unilaterally departed from the joint inspection process which had

previously worked well. Furthermore, it must be remembered that in relation to year 7 Capita was no longer involved in the process, so Cumbria could not even have the comfort of saying that these claims had originated from an area inspector employed by Capita acting as an independent overseeing organisation.

- 34.59 Whilst I accept that the extent of proof required must depend on the issues raised by the parties in the statements of case, nonetheless in my judgment Cumbria has failed to provide even a basic amount of admissible evidence to prove its case in significant respects. In effect, it has done no more than to produce the defects schedule and some visual inspection sheets in relation to some, but by no means all, of the claims. Some visual inspection sheets are from early 2012, others are from 2014, all of them are assessments by a Cumbria employee and not a Capita employee. None purport to express a view as to whether or not the defect recorded was a breach by Amey neither, in terms, did Mr Capstick as Cumbria's only witness on the point, who was called on the express basis that he was not giving evidence as to the substantive issues. I infer that this was because it was envisaged at the time he produced his witness statement that this evidence would come from Professor Knapton. However, as I have already said, I am unable to place any reliance upon the opinions expressed by Professor Knapton in relation to schedule 7 as a whole, let alone these individual elements of the claim. He does not give any relevant evidence either as to whether or not these defects are matters for which Amey is responsible or as to what remedial works are reasonably required. Initially there was no admissible evidence produced as to the remedial costs, although I do accept that this has been remedied by the agreement reached by the quantum experts on a figures as figures basis.
- 34.60 In the circumstances, and save insofar as the subject of express admissions by Amey, I am satisfied that item 210 fails.
- 34.61 Finally, items 2 and 18 – 20 should be addressed. There appears to be no hard evidence as to these claims one way or the other. Amey had pleaded a defence to them in its pleaded case before they were omitted from items 1 – 209 and transferred to item 210. Cumbria had not pleaded any response to that defence, nor are they the subject of evidence from Cumbria and, in the circumstances, I am not satisfied that Cumbria has established the burden of proving these claims to the requisite standard.
- 34.62 A further point which has been raised by Amey concerns the potential for duplication as between this schedule 7 claim and the schedules 2 and 3 claims. Since I have dismissed those claims, this question does not arise directly for determination, but I should address it briefly. In short, Amey's argument is that if schedules 2 and 3 seek to extrapolate the defects specifically addressed across every area and every year of the contract, then it follows that if its case is accepted it will recover damages on the basis of a reasonable assessment of all such defects. There is no reason, says Amey, why this assessment should exclude defects which were the subject of notification under the contract and, hence, fall within schedule 7, so that to allow recovery under this schedule as well as under the extrapolated claims would result in double recovery. Cumbria's response is that there is no duplication, because the extrapolated claims relate to non-notified defects. I am unable to understand why this makes a difference.

The extrapolated claims relate to all defects remaining unremedied at the end of the contract period, whether notified or not. The only way to avoid duplication would be to remove from those schedules all defects also within schedule 7. In fact, however, what Cumbria appears to have done is to remove the majority of the duplicated defects from schedule 7, but that does not address the problem, because it still means that Cumbria could recover damages on an extrapolated basis for all defects, notified or not, and has also sought to recover damages separately for all notified defects save for those expressly excluded. In short, had I accepted the extrapolated claims, I would have dismissed the schedule 7 claim, save in relation to those limited claims which are not in any way related to patching or surfacing – see Cumbria’s closing at paragraph 589.

34.63 I should also address the valuation of the remedial costs in relation to those items admitted by Amey. I have already referred to the supplemental further joint statement, where Mr Taft and Mr Dale were able to reach agreement on a figures as figures basis. Since I have accepted Amey’s case as regards to the defects and the need for remedial works, it follows that the relevant figures are either £68,903.86 on Amey’s case or £88,253.33 on Cumbria’s case (paragraph 7.1.13 of the joint statement).

34.64 The key issue here is as to whether the framework contractors’ rates or Amey’s rates should be used. I have already referred to this debate in the context of the schedule 2 and 3 claims. For the same reasons as previously, I do not accept that Cumbria is contractually entitled to have these costs valued by reference to the framework contractor rates, even though these claims do fall within the defects notification and rectification provisions of the contract. Insofar as all of the works other than the surface dressing works are concerned, then for the reasons already given I am satisfied that insofar as remedial works are undertaken they will most likely be undertaken by Cumbria’s DLO, rather than by framework contractors. It follows, for the same reasons given, that in my view the appropriate rate to use is Amey’s contract rate. Insofar as the surface dressing works are concerned, I am satisfied that these works will not be undertaken as separate limited works to address these separate limited defects, but as part of an overall programme of regular planned surface dressing works. In the circumstances, it seems to me to be inappropriate to rely upon the rates used by Cumbria as if the works were to be done by its framework contractor on a stand-alone basis. Indeed it also seems to me that if these claims had been undertaken as part of the previously agreed procedure, they would have been undertaken by Amey anyway before the end of the contract. For those reasons, in my view Amey’s contract rates are the appropriate measure. In the circumstances, I prefer and accept Mr Taft’s assessment.

Conclusions

34.65 The financial consequences of these findings is as follows: (1) in relation to items 1 – 209, Cumbria succeeds as to £68,903.86; (2) in relation to item 210, Cumbria succeeds as to £15,551 for year 4, £72,104 for year 5, £22,696.67 for year 6, and nothing for year 7; (3) in relation to item 211, Cumbria recovers nothing. The total recovery is £179,255.53.

34.66 Finally, I note that it is said in paragraph 948 of Cumbria's opening submissions that Cumbria withheld the sum of £448,677 against this counterclaim. This has been taken into account by the experts in their final reconciliation.

35 **Schedule 8: waste material**

35.1 Cumbria's claim is for £358,701.49, being the claimed cost of removing waste from depots which Amey was contractually obliged to remove at the end of the contract, but which Cumbria contends that it failed to do. Amey accepts a liability for £54,858.68, but no more than that.

35.2 The experts have agreed that the proper valuation of Cumbria's claim on a full value basis is £340,210.99. They have also agreed that Cumbria has been invoiced £18,390.50 for the survey work undertaken in relation to this claim, as to which there is no dispute save as to whether or not that invoice has been paid by Cumbria, because Mr Taft says that he has not seen confirmation to this effect from Cumbria's accounting system.

35.3 In his first witness statement, Mr Robinson explains that it was in February 2012 that he was told by Mr Rollitt that Amey might be intending to leave waste material in some of the depots and storage areas at the end of the contract, rather than to remove waste as it was obliged to do under the terms of the relevant licenses entered into as part of the contract. Although Mr Rollitt has given evidence that Amey deliberately sought to conceal waste in depots and storage areas, for reasons I have already given I do not feel able to place any weight at all upon that evidence.

35.4 Nonetheless, as a result of this information it was arranged that Capita should undertake an assessment prior to the end of the contract, to see whether waste material was still present with a view to ensuring that, if so, Amey complied with its obligations. The conclusion was that waste material was still present and there was a meeting with Amey on 23 March 2012 to discuss the issue, followed by some further communications, which concluded with Mr Forster stating on 23 April 2012 that he believed that all areas had been handed back in accordance with the terms of the relevant licences.

35.5 However, Cumbria's case is that the results of the further reports commissioned by it from Capita revealed that this was not the case, and that substantial quantities of waste had been left in the depots and storage areas by Amey.

35.6 In his witness evidence Mr Collins took issue with this, contending that Amey had indeed removed the great majority of waste, and that insofar as any remained it could not be established that it was waste for which Amey was responsible, rather than waste which was already present in 2005 or waste deposited by fly tippers after the end of the contract.

35.7 In cross-examination it was put to Mr Collins that his inspection of the sites at the time was a fairly cursory inspection, and that little reliance could be placed upon it. It does seem to me that if, as he says, it took him 10 days to survey the sites, he produced very little by way of

hard detail at the end of the process. It also seems to me that in large part his evidence consisted of little more than recycling of views expressed by other unidentified, persons. It is clear that Amey was not prepared to instruct an independent surveyor to undertake a report, and my conclusion is that this was because they were fully aware that in fact they had not complied with their obligations under these licences, but were seeking to find ways to avoid or minimise any resultant liability.

- 35.8 Dr Ferley of Capita was responsible for arranging the inspections and the subsequent reports. It was put to him that it was not possible to treat the reports as reliable, because they were based on a very quick and superficial inspection, they were never intended to provide a precise assessment of the amount of waste present, and were never finalised, having been produced at great speed and without being subjected to the usual process of quality control and review. In summary, his response was that: (1) the reports were based on a careful and detailed inspection, with 2 separate physical inspections and a desktop analysis; (2) the reports were sufficiently precise to enable quantities to be ascertained with a reasonable degree of confidence; (3) whilst he was prepared to accept that the final reports did not proceed beyond draft status, were not subject to the usual quality control and review procedure, and were produced under some time pressure, nonetheless they were competently undertaken and subject to informal but careful review and checking, and there were no obvious defects found such as would cast doubt on their essential validity.
- 35.9 I have already stated in paragraph 3.34 above that I was favourably impressed by Dr Ferley as a witness. That, however, is not in itself conclusive of these issues, which I address in more detail below, but I make clear that I essentially accept Dr Ferley's evidence and Cumbria's case.
- 35.10 As to what Capita did, I am satisfied that its tender submission was carefully produced, being broken down as between the various sites to reflect the different amounts of work involved in relation to the different sites. I also accept that these were not particularly difficult sites to assess as opposed, for example, to a contaminated landfill site which might contain hotspots of contaminated waste which could be difficult to discover without a detailed and painstaking inspection process. I also accept that Capita had the benefit of an earlier environmental risk assessment and a post termination inspection to assist it in forming a conclusion as to what if any waste had been removed by Amey. I also accept that the task of deciding whether or not the waste had been deposited before or after Amey had been allowed into possession of the sites went through a 2 stage process, including Capita being asked to consider and recommend what further research was needed to undertake this function, and which included obtaining documents such as aerial photographs and work to date those photographs, researching available internet geographic sources, using the timeline facility available, considering contemporaneous site audit reports, and conducting what appears to have been a careful desktop analysis. For example, in relation to pile 8 at Allen Knott, I am satisfied that there is no reason not to accept his conclusion that it was possible, by reference to the reports and condition surveys of March and June 2005, to date the waste with reasonable accuracy.

- 35.11 As regards the estimation of the quantities, Mr Streatfeild-James was able to demonstrate that Capita had said that they would only be able to give an outline of the quantities with an order of magnitude. Dr Ferley also initially accepted in cross-examination that an estimate of 5 m³ might in fact fall within a range of anywhere between 2 m³ and 7 – 8 m³. However I accept his subsequent clarification that in the particular circumstances of this case Capita would be able to assess with reasonable confidence within a bracket of +/- 10 – 15%. That is particularly so because there was a further inspection undertaken after the initial risk assessment which was specifically intended to assess quantities, and because although no detailed topographical survey was undertaken, Capita did use normal measurement techniques, and produced photographs and undertook calculations. I was shown some of Dr Ferley's calculations, which are clearly impressive, and although I accept that the same calculations have not been produced as regards the other Capita representatives, I accept Dr Ferley's evidence that they would have been produced. Furthermore, standing back, as I have said I accept Dr Ferley's evidence that these were not particularly difficult sites to assess.
- 35.12 I accept Amey's criticism that I have not heard evidence from the other Capita representatives involved in the process, but it is clear from the evidence, and I accept, that the other 3 representatives involved, Mr Penny, Mr Reilly and Mr Smith, were all eminently qualified to undertake this work, which was not unfamiliar to them. I also accept Amey's criticism that Cumbria have not procured full disclosure of the contemporaneous field notes and other research. However it does not seem to me that these points casts serious doubt on the validity of the exercise as a whole, and I note and accept Dr Ferley's evidence that he cross checked the waste estimates produced by the other representatives.
- 35.13 It is clear that the initial land condition survey reports were produced under no great pressure of time, and was subject to checking and approval. It is also clear that the subsequent inspections and reports on the 26 sites were produced under some time pressure, but it was not undue time pressure, particularly when a number of the sites, particular the laybys, would not require very much detailed inspection or analysis. The final work stage, to provide an age assessment of the waste, ran from August 2012 through to November/December 2012. I accept that in cross-examination Mr Streatfeild-James was able to identify some errors which would have been picked up on a detailed review, but none of which were of real significance or such as would cast real doubt on the accuracy of the conclusions. Finally, whilst it is the case that these reports were never issued as final versions, because Cumbria wanted to review the drafts before they were issued as formal reports, nonetheless I accept Dr Ferley's evidence that they were subject to an informal review before being sent out.
- 35.14 When considering Amey's criticisms of these reports, I must bear in mind first that they are of immeasurably superior quality to the material produced by Mr Collins, and second that Amey has failed to produce any evidence as to the quantities of waste it says it removed from the various sites, for example evidence from the contractors involved and documentary evidence of waste removal and disposal.
- 35.15 Amey submits that a difficulty for Cumbria is that if the court is not completely satisfied that Capita's evidence is correct in all material respects, there is no material from which the court

can reach any alternative assessment, other than by reference to the figures put forward by Amey. I do not accept this submission. Having heard Dr Ferley give evidence under skilful cross-examination I can be satisfied that his evidence – which I accept includes evidence of what others within Capita did – is far more reliable than that of Amey. I also accept, as he did, that there are shades of grey, particularly when it comes to assessing quantities, so that he could not guarantee with 100% confidence the accuracy of the contents of the reports. Nonetheless I am satisfied that I have sufficient material to form a reasonable view as to the likely extent by which it might be inaccurate. In my view I can be confident that if I discounted the claim by 25% that would represent a generous discount to reflect the risk, on the balance of probabilities, that there was some overstatement first as regards the quantities and second as regards whether the waste was all waste brought onto the site by Amey.

- 35.16 Whilst I accept that Mr Taft is right when he says that he has not seen documentary evidence that Capita's invoice was paid, there is no reason in my view to think that it was not, and Dr Ferley was not cross-examined on the basis that the invoice had not been paid.
- 35.17 In the circumstances, I award Cumbria 75% of the figure agreed by the experts of the claim on a full value basis which, according to my calculations, produces a claim of £269,026.12.

36 **Schedule 13: subcontractor uplifts**

- 36.1 This is a relatively modest claim, being valued at £52,807.22.
- 36.2 There is little or no dispute about the essential facts. Prior to 2009 a practice had developed whereby Amey claimed, Capita accepted and Cumbria paid a 20% uplift on work procured through sub-contractors, to reflect its costs of procuring and administering the subcontract as well as its allowance for overheads and profit.
- 36.3 By June 2009 Cumbria had come to be concerned that this uplift was overly generous, particularly if the value of the subcontract works was large. There was a meeting of the management team in June 2009 at which various alternatives were considered and agreement was reached that the solution adopted should be that whilst the 20% uplift should continue to be applied to all subcontract orders below £5,000, above that figure the uplift should be identified separately when the work was priced at estimating stage. Although not specifically stated in the minute of meeting, it is clear that it was envisaged that this would result in a specific uplift being agreed at the time, in advance of the work being ordered, rather than being left until after the event.
- 36.4 There is no evidence that either Capita or Cumbria raised any concerns that this agreement was not being adhered to. There is some evidence that in relation to some individual items there was discussion and agreement about an appropriate uplift of less than 20%, but it appears that in the vast majority of cases the 20% uplift was applied to subcontract with a value above £5,000 as well as to all subcontracts with a value below £5,000.

- 36.5 Cumbria contends that this happened because Amey failed to adhere to the agreement reached, and seeks to recover the difference between the 20% claimed and paid and the 9% which it claims Amey was entitled to under the contract, in the absence of agreement.
- 36.6 A difficulty for Cumbria is that it has not put any positive evidence forward from those involved at the time to the effect that Amey did not notify Capita of the proposed uplift before the works instruction was placed. All that Mr Roper, who is responsible for this claim, could say is that he was unable to identify evidence of substantiation being put forward. He is unable, however, to give positive evidence to the effect that Amey did not notify Capita of the proposed uplift, or that Capita wrongly approved payment claims including the 20% uplift in circumstances where the 20% uplift had not been specifically brought to its attention and agreed before the works instruction was placed. It is just as plausible, as Mr Roper accepted, since he blamed all 3 parties equally for this, that those involved at the time were fully aware of how the new system was intended to work, but took the conscious decision simply to agree 20% as being appropriate in each case, either expressly or tacitly.
- 36.7 However in its closing submissions Cumbria pointed out that Amey had failed to prove by evidence that it had notified Capita of the proposed uplift at the time, or that it had been able to provide substantiation for the uplift, or that it had been agreed by Capita before the works instruction was placed. Cumbria's case is that in the absence of evidence that Amey adhered to the agreement, the onus rests with Amey at final account stage to provide proper verification under the contract of its entitlement and, in the absence of evidence, it cannot do so.
- 36.8 It appears that both parties are effectively seeking to submit that the onus of proof lies on the other party, and that the case should be decided in its favour on the basis that the other party had failed to discharge the onus of proof. Both parties observed that there was, on one view of the contract, which is indeed the view I have taken, a difference to be drawn between the case of works instructions which had been finalised and paid, and works instructions which had not been finalised and paid.
- 36.9 In my view it is incumbent on Cumbria, as the party bringing the claim and alleging that an agreement made had not been adhered to, to establish its case. That would involve, at the very least, Cumbria identifying which works instructions had not been finalised, and also identifying – if only by way of example – individual cases where it could produce evidence, whether in the form of contemporaneous documentation from the files, or from calling the relevant Cumbria and/or Capita representatives, to explain what had happened so as to confirm that the procedure had not been followed. Cumbria has not done any of those things.
- 36.10 On my assessment of what most probably happened in this case, consistent with the views expressed by Mr Roper, Amey most likely began by complying but on the basis that they would always include a 20% uplift. In the vast majority of cases the relevant Capita and Cumbria employees were happy to agree 20%, on the basis that it seemed reasonable and that there was no point in wasting valuable time and effort in seeking to chase down substantiation. I am satisfied that after a fairly short period of time all parties, consciously or

tacitly, worked on the basis that 20% for all subcontracts would be allowed and paid unless a particular issue was raised by Capita or Cumbria. In such circumstances, it seems to me that there is no basis now for Cumbria to seek to make a claim for repayment on the basis that, even if it could prove that the agreement had not been adhered to, that would have made any difference to the eventual outcome.

- 36.11 The further difficulty which Cumbria faces in my view is that it has failed to differentiate between works instructions which were finalised, whereon my analysis it would be necessary for Cumbria to advance cogent evidence to seek to reopen that works instruction, and those which were never finalised, where different considerations might apply.
- 36.12 The final difficulty which Cumbria faces in my view is that it has advanced its claim on the basis of the difference between 20% and 9%. However even on Cumbria's case the agreement did not provide for 9% as a default. It simply provided that there was a default of 20% for subcontract values below £5,000. The 9% figure is simply the fee for the ascertainment of compensation events; it is not, so far as I am aware, provided anywhere else in the contract that Amey is only entitled to charge 9% on subcontractor costs to cover all of its overhead and margin. It follows that it would be necessary for Cumbria to establish that if the agreement had been followed it would have resulted in all cases in 9% being applied. It does not seem to me that Cumbria is able to show this. I note, and accept, Mr Taft's evidence that 20% would not necessarily be unreasonable.
- 36.13 In all the circumstances, I am satisfied that Cumbria has not made out its case in relation to this claim.

37. **Balance due and interest**

- 37.1 On 9 November 2016 the quantum experts were able to produce an agreed schedule setting out the final outcome of the claims and counterclaims. There was one remaining issue, which did not affect the final figure, as to whether the payment due to Amey in relation to efficiency savings should be allocated to its part 1 claim or its part 2 claim, which I resolve in Amey's favour, since it involves the return of a sum which I have determined was wrongfully deducted or withheld. The end result appears from Mr Taft's version of the agreed schedule, which may be appended to this judgment as a convenient summary of the position. In short, however, the position is that Amey succeeds as to the principal sum of £3,698,064.04.
- 37.2 In my supplemented draft judgment I dealt with interest in principle, following which the quantum experts were able to agree the precise quantification of interest in the schedule of 9 November 2016. The sum agreed to be due as at 9 November 2016, taking into account the determinations below, is £1,697,246.30. The total amount payable to Amey as at 9 November 2016, inclusive of interest but taking into account the principal and interest in respect of the settled winter services claim, is £5,365,093.34. It is also agreed that interest will accrue at the daily rate of £1,219.13 until payment is made.

37.3 In the Re-Amended Particulars of Claim Amey claimed interest under clause 11.8 of the services agreement. This provides that:

“Where any payment or sum of money due from either party to the other under any provision of this Contract is not paid within any Year on the date it falls due it shall bear interest at the interest rates and for the periods described in the following table from the due date (whether before or after any judgment) until actually paid. Any such interest shall accrue on a compound basis.

Number of Missed Payments	Interest Rate
Two	LIBOR +2%
Three or more	Statutory rate of interest on late payments pursuant to the Late Payments of Commercial Debts (Interest) Act 1998.”

37.4 Given that the statutory rate under the Late Payments Act is, and has been since 2002, 8% above base rate current, it will immediately be apparent that there is a significant difference between interest under the first limb of clause 11.8, which is broadly the same as the commercial rate of interest usually awarded in cases such as the present, and the second limb, which is of course the significantly enhanced rate applicable under the Late Payments Act.

37.5 By the time of the October 2016 hearing it was apparent that the result of my judgment, taking into account all claims and all counterclaims, was that Amey would receive a substantial proportion of the amount deducted (I use that word deducted advisedly as a neutral expression, given what appears later) by Cumbria from the last three monthly payments payable under the contract for the months of January, February and March 2012, but would not receive an amount in excess of the amount deducted. If Cumbria had not made any deductions from the last three monthly payments, it would have emerged as the net beneficiary in financial terms, but because it did it is Amey which is the net beneficiary of this judgment. In those circumstances Amey contended that it should receive interest at the Late Payments Act rate on the amount it recovers, which contention was vigorously disputed by Cumbria at virtually every level.

37.6 The issues which arise are:

- (i) Does clause 11.8 apply only to late or non-payment of amounts assessed and certified as due by Capita as the overseeing organisation, where no justification for that late or non-payment is given, or does it also apply to late or non-payment of amounts where a purported justification – such as withholding under clause 11.3 and/or set off under clause 11.7 – is given but subsequently demonstrated to have been unjustified?
- (ii) Does clause 11.8 apply to late or non-payment of annual or final account assessments as well as to monthly assessments, and has Amey made or pleaded a valid claim for assessments to which clause 11.8 applies?
- (iii) Did Cumbria fail to make payment due to Amey under clause 11.8 on three or more occasions?
- (iv) If so, over what period of time and at what rate or rates interest under clause 11.8(2) is claimable, and is the interest claimable simple interest or compound interest?

37.7 I should begin by referring to the other relevant parts of clause 11, which is entitled “Payment”:

11.1 The Council shall pay to the Contractor the monies payable for the proper provision of the Services under this Contract when due and in the manner specified herein.

...

11.3 Notwithstanding any other provision of this Contract or any of the Special Conditions, the Council shall not withhold any amount due to the Contractor under this Contract or any of the Special Conditions without first notifying the Contractor not less than seven days in advance of the final date for payment referred to in Condition 11.6, specifying:-

11.3.1 the amount proposed to be withheld and the ground for withholding payment;

11.3.2 if there is more than one ground, each ground and the amount attributable to it.

...

11.6 All payments due under the Contract shall be subject to the receipt of a valid invoice and shall be paid within 30 days of receipt of such invoice. All such invoices shall include details of amounts payable (including interest thereon) together with any performance adjustments and other deductions and tax.

11.7 Each of the parties shall be entitled to set off sums due to it by the other party against sums due by it to the other party save where the sum to be set off against any charges or other sums due is the subject of a bona fide dispute between the parties.

37.8 I have already referred above, in the section dealing with the contract (see paragraph 2.28 above), to the monthly, yearly and final account assessment provisions of the highways special conditions. They expressly provide that the overseeing organisation is to assess the amount which is due to Amey at each stage. They also provide for assessments to take place when an amount due is corrected and when a payment is made late.

37.9 Clause 40 of the highways special conditions specifies the date when payment becomes due, and also repeats the withholding provisions of clause 11.3 of the services agreement. (Although it was suggested that there is a discrepancy between the final date for payment in the respective clauses, having looked at it again I think that by having regard to the date for submitting invoices under clause 37.4 of the services agreement there is no discrepancy, but even if there is a discrepancy that is not material.)

37.10 There is then clause 41 of the highways special conditions, entitled “Payment”, which provides that:

- 41.1 Each payment is made on or before the final date for payment. If a payment is late, interest is paid on the late payment, interest is assessed from the date by which the late payment should have been made until the date when the late payment is made, and is included in the first assessment after the late payment is made.
- 41.2 If an amount due is corrected in a later payment either by the Project Manager, whether in relation to a mistake or a Compensation Event or following a decision of the Adjudicator and/or the court or tribunal, interest on the correcting amount is paid. Interest is assessed from the date when the incorrect account was certified until the date when the correcting amount is included in the assessment which includes the correcting amount.”
- 37.11 Neither the services agreement nor the highways special conditions makes express reference to any specified interest rate other than in clause 11.8. It is a moot point as to whether the interest rates specified in clause 11.8 of the services agreement should apply to interest payable under clause 41 of the highways services conditions. I do not need to decide this point, since because Cumbria accepts that a commercial rate of interest would be 2% over base there is no real difference between the interest recoverable under the first limb of clause 11.8 and that awarded under s.35A of the Senior Courts Act 1981. If I had to decide the point, I would conclude that 2% above LIBOR would be the rate which should apply under clause 41 on the basis that the two sections of the contract should be construed together.
- 37.12 As regards the proper construction of clause 11.8, Mr Streatfeild-James accepted that it could not apply where Cumbria paid what was assessed as due by Capita, even if that was subsequently accepted or proved to be an under-assessment. In such a case clause 41.2 of the services agreement would apply. However he submitted that clause 11.8 was not limited to cases of late or non-payment where no justification was given at the time. He submitted that clause 11.8 also applied where Cumbria purported to exercise its right of set off under clause 11.7, but in circumstances where it was not entitled to do because there was a bona fide dispute between the parties. This was, he submitted, precisely the position here. He also submitted that clause 11.8 also applied where Cumbria purported to exercise its right of withholding under clause 11.3, but in circumstances where it was subsequently accepted or found by a court (as here) that the withholding was not justified, in whole or in part, which on Cumbria’s analysis is the position here. He submitted that clause 11.8 was clearly intended to create a bespoke contractual provision whereby the cost of funding non-justified deductions from assessed amounts was placed firmly upon Cumbria, and at a very significantly enhanced interest rate if it proved to be a serial offender.
- 37.13 Mr Bowdery submitted that clause 11.8 on its proper construction did not apply to withholding cases. He submitted that it only applied to cases where no proper justification was given at the time. He submitted that clause 11.3, in following the withholding notice procedure required by the Housing Grants Construction and Regeneration Act 1996, made it plain that so long as Cumbria gave withholding notices in accordance with the prescribed timetable it was entitled only to pay the remaining balance, and clause 11.8 could have no application even if it subsequently transpired that too much had been withheld.

- 37.14 I prefer the submissions of Mr Streatfeild-James. This is clearly a bespoke contract, which does not simply cut and paste the payment provisions of the 1996 Act. Clause 11.8 is very specific in applying to any payment of money due to the other where it is not paid on the date when it falls due (emphasis added, as it is throughout this paragraph). Clause 11.3 deals with withholding from amounts due to Amey (emphasis added). It is to be distinguished therefore from clause 11.2 which addresses deductions by the overseeing organisation from monthly payments, where such deduction would result in the lesser amount being due – see also clause 37.3 of the highways special conditions in relation to deductions for amounts to be paid to or retained by Cumbria. That also fits in with clause 11.7, where there is a mutual entitlement to set off of monies due both ways, save where there is a bona fide dispute as to whether or not one payment is due. There is nothing in the clear words or context of clause 11.8 which means that it should be read as if it said “... is not paid or is not withheld in accordance with clause 11.3 ...”. I accept Amey’s submission that it contractually allocates the cost of non-payment of assessed amounts upon Cumbria either in the case of set off where the amount said to be due is bona fide disputed or in the case of withholdings later found to be unjustified.
- 37.15 I now turn to Cumbria’s contention that clause 11.8 is concerned only with interim payments agreed and certified as due but not paid and, thus, has no application to the claims in this case, which are final account claims.
- 37.16 I do not accept this as a matter of construction of clause 11.8. Clause 11.8 applies to “any payment or sum of money due from either party to the other under any provision of this Contract” (emphasis added again). It would follow that it would apply to unpaid annual accounts and indeed to unpaid final accounts.
- 37.17 The real point being made by Cumbria is, I think, a pleading point, because what is said is that there was no express claim for unpaid monthly assessments or, for that matter, for unpaid annual account assessments or final account assessments in Amey’s pleaded case. What Cumbria argues is that Amey’s claim was in the nature of a final account claim, where Part 1 of that final account claim was derived from what was said to be annual account underpayments, and Part 2 was derived from what was said to be breaches of contract by Cumbria. This point was developed in Mr Bowdery’s written and oral submissions at the October 2016 hearing, and was supplemented by a 4 page further written letter from Cumbria’s solicitors, which purported merely to provide trial bundle document references but in fact comprised a further round of submission.
- 37.18 The pleaded claim is clearly separated into what are described as “annual accounts” claims (paragraphs 14 - 19) and “final account claims” (paragraph 20 onwards). It is pleaded in terms that Cumbria had unjustifiably underpaid Amey £7,292,304.40 for the year 2011/2012 (paragraph 18). It is also pleaded in terms that Amey understood that Cumbria had purported to withhold £4,197,363.18 on account of its purported counterclaims, with the remainder of the total underpayment against annual accounts of £7,915,101.56 being said by Cumbria to be justified on other grounds (paragraph 19). Amey also pleaded in terms that it disputed the validity of all such withholdings.

- 37.19 In paragraph 44 Amey pleaded its claim for interest on late payments under clause 11.8, and attached its calculation of interest at Schedule 3. The summary at page 1 made it plain that interest was claimed on the annual accounts claim. The schedule at page 7 clearly showed that interest was being claimed on the amount said to have been underpaid in year 2011/2012, in the adjusted sum of £4,382,372.57 as from 9 June 2012. The schedule at page 10 makes it plain that interest at the statutory Late Payments Act rate of 8.5% was being claimed on this sum.
- 37.20 Turning to what happened at the time, the position is as follows:
- 37.21 On 17 February 2012 Cumbria wrote to Amey [JA67/159] providing details of an adjustment, which had the effect of a deduction, from the January 2012 interim certificate, in the sum of £994,355.63, comprising a number of different items. On 16 March 2012 Amey wrote to Cumbria [JA71/39] to make it clear that these adjustments were disputed and not justified under the contract.
- 37.22 On 16 March 2012 Cumbria wrote to Amey [JA79/220] providing details of a further adjustment, again which had the effect of a deduction, from the February 2012 interim certificate, in the sum of £691,530.27, again comprised of a number of different items, the total deduction at that stage therefore amounting to £1,987,751.47. It appears that Amey responded in similar terms on 5 April 2012.
- 37.23 On 12 April 2012 Cumbria wrote to Amey [B/5.2.3.3] what was described as an “important contractual withholding notice” pursuant to clause 11.3, and which explained that it intended to set off under clause 11.7 the sum of £1,523,166 in relation to street lighting services, to deduct costs of £146,200.48 in relation to the substitution of the street lighting services, to deduct £283,056.42 in relation to the cost of remedying uncorrected defects, and – it appeared although not stated expressly – to deduct £558,890 in relation to efficiency savings for 2011/2012.
- 37.24 On 11 May 2012 Amey wrote to Cumbria [JA79/164] referring to the three interim certificates for January, February and March 2012, and contesting both what it contended was an under-certification of £2,312,585.94 and also what it contended were unlawful deductions totalling £4,449,064.37. It required Cumbria to release what it said were sums which had been wrongly withheld in breach of contract.
- 37.25 It appears that these claims were then incorporated into the 2011/2012 annual account submission and, in due course, into these proceedings.
- 37.26 I have already referred to the Re-Amended Particulars of Claim. In its Amended Defence and Counterclaim Cumbria pleaded (paragraph 107) an analysis of its deductions and withholdings, said to total £4,197,361.37, from which it is clear that all were related to its counterclaims, although the majority were described as adjustments as opposed to withholdings. In its letter of 31 October 2016 Cumbria contended that only the withheld

items were relevant, and that of these only that element relevant to notified defects (Schedule 7) was live at trial. This contention is in my view flawed on a number of levels. First, it is not open to Cumbria to seek to re-write history by pleading that its deductions or withholdings against the final 3 months' certificates were in respect of different items from those notified at the time. Second, it is clear from a true reading of this part of the pleading when read in the context of the pleading overall and of the contemporaneous correspondence that Cumbria was consciously referring to what were described as measurement items as being adjustments, and it is clear that they represented deductions from assessed sums.

- 37.27 Third, and most significantly in my judgment, whatever the precise composition of the adjustments or deductions or withholdings, the plain fact is that Cumbria did consciously choose to make these very substantial deductions from what it would otherwise have paid Amey but for the matters then and now in dispute, and has never sought to make payment of those prior adjustments, deductions or withholdings ever since, whereas now – as a result of this trial and judgment – it will have to make a very substantial payment. By January 2012 it was clear that Amey was contending that it was entitled to substantial payments from Cumbria for work undertaken as well as for the Part 2 claims, whereas Cumbria's position was that whatever Amey might be entitled to for work undertaken it was going to make substantial deductions or withholdings on the basis that it had counterclaims which it believed would cancel out any liability for that work. By this judgment that position has been shown to be erroneous. It follows that it ought not to have made adjustments, deductions or withholdings in relation to the balance payable to Amey for work done in the last 3 months which had been assessed as being due to Amey. It follows that on three occasions payment was not made of money due to Amey on the date when it fell due.
- 37.28 On my construction of clause 11.8 it matters not whether this was said to be by way of set off under clause 11.7 or by way of withholding under clause 11.3. Even if I was wrong about that, it is clear that the initial deductions from the first two months were not said to be withholdings. Even in the letter of 12 April 2012 Cumbria did not in my view make it sufficiently clear that it was exercising a right of withholding under clause 11.3 in relation to any of the specific items. A general non-specific reference to withholding in the heading of the letter would not in my view be sufficient. Although Mr Bowdery referred me to instances where Amey had referred to withholding as opposed to deduction, and even to earlier passages in this judgment where I had also referred to withholding, I do not consider that this helps Cumbria's case. Finally, even if I was wrong about all that, at most Cumbria could only argue a justified withholding in relation to the £146,200.48 for the substitution of the street lighting services, the £283,056.42 for the cost of remedying uncorrected defects and the £558,890 for efficiency savings.
- 37.29 It follows that I accept Amey's case that it is entitled to interest at the Late Payment Act rate once the payment for March 2012 was not made in full in respect of the assessed amount, because that was the third occasion on which payment of what was due on the date when it fell due was not made. As a matter of construction I am satisfied that once the number of missed payments rises to three or more, interest at the Late Payments Act rate applies on all unpaid sums, until such time as they are repaid. It seems to me that the reference to the sum

bearing interest at the interest rates and for the periods described in the following table makes it plain that in respect of any period where 3 or more payments are outstanding the Late Payments Act rate applies as regards all outstanding payments, even the first and second.

- 37.30 Since interest has only been pleaded as running from 9 June 2012, that is the start date from which I allow interest. It should run down to the date of judgment, which I expect will be 9 November 2016, and continuing thereafter until paid in accordance with clause 11.8.
- 37.31 The interest rate is that prescribed under the Late Payments Act, namely 8% over base per annum. That is a provision for simple as opposed to compound interest. Clause 11.8 specifies that interest shall accrue on a compounded basis. It has been clarified that Schedule 3 does calculate and plead interest on a monthly compounded basis. Amey is entitled under contract to compound. Mr Streatfeild-James acknowledged that there was no express statement as to the rests over which the interest should be compounded. He submitted that it was reasonable to assume against Amey that it was not compounded daily (as a bank would be entitled to compound) but monthly, in accordance with the monthly assessment regime. I agree, so that compound interest as claimed and pleaded should be compounded monthly.
- 37.32 Mr Bowdery advanced a fallback argument, which was that clause 11.8 on its proper construction has the effect that Amey's right to interest is governed by the Late Payments Act in its totality, with the results that:
- (a) Amey is not entitled to compound interest, since the Late Payments Act does not make provision for this: see s.1(1).
 - (b) The court should exercise its power under s.5(1) to remit statutory interest, in whole or in part, and whether as to rate or period or both, where by reason of any conduct of Amey the interests of justice require that to be done.
- 37.33 Cumbria's primary difficulty however is that clause 11.8 makes it plain that it is only the interest rate specified in the Late Payments Act which is to apply, rather than the provisions of the Late Payments Act in their totality. As a straightforward matter of construction of clause 11.8 I reach this conclusion.
- 37.34 Further, as to compound interest, this argument has the added difficulty that clause 11.8 is quite clear that interest is to be compounded under whatever limb it is awarded. This is a contractual interest provision which is quite clear and unambiguous, and the parties are free to agree contract terms which deal with the consequences of late payment of a debt as long as it is a substantial remedy: s.8(5) of the Late Payments Act.
- 37.35 As to remission, the jurisdiction to remit under s.5 only applies to claims for statutory interest under the Act, which is not this case. The jurisdiction to remit does not apply to agreed contract terms which are substantial remedies and hence do not fall foul of s.8, and Mr Bowdery has realistically not suggested that clause 11.8 does not afford Amey a substantial remedy.

- 37.36 Even if I was persuaded that there was power to remit, I see no reason to exercise it in this case. It should only be exercised where the conduct of Amey is such that the interests of justice require it. Cumbria's arguments are directed to criticising Amey's final account submission in terms of its inflation and lack of success. In my judgment these arguments are hopeless in relation to the claim for interest with which I am now concerned, which is a claim for interest on the amount of the sums wrongly deducted by Cumbria from the final monthly assessments. The simple fact is that Cumbria took a deliberate decision to deduct payment of substantial sums at the end of the contract largely in reliance on counterclaims which have largely failed, and where otherwise it should have paid Amey, so that there is no conceivable injustice in requiring Cumbria to pay the commercial price for wrongfully keeping Amey out of its money for work done in the last 3 months of the contract for over 4 years.
- 37.37 Cumbria also made submissions as to whether the interest provision under clause 41 should apply, with which I do not need to deal given my conclusions in relation to clause 11.8, but which for completeness I address shortly. Cumbria criticises Amey for its failure to comply with its obligation under clause 39 to provide verifying information, and submits that it was not until service of the Re-Amended Particulars of Claim in July 2014 that the basis of the claim was made clear and Cumbria was in a position to issue a final assessment within 3 months of that date. Cumbria further contends that it was still not possible for it to do so at that stage due to the deficiencies in Amey's provision of information, which have continued, so that the due date for payment only arises as at the date of this judgment, with the result that nothing is payable by way of interest.
- 37.38 I do not accept these submissions. Whilst I have made some criticisms of Amey's final account claims and the lack of supporting documentation, nonetheless as I found in paragraph 2.35 above it was Cumbria's obligation to make a reasonable assessment based on the information provided. Here Cumbria has failed to do so, not because of the lack of supporting information but because of its conviction, which on the basis of my judgment was misplaced, that it was Amey which owed it money rather than the other way round. In those circumstances I see no reason whatsoever why Amey should not have been entitled to interest under clause 41 at 2% above LIBOR from 9 June 2012 as claimed until judgment. The same would be true if the assessment was to be undertaken under s.35A Senior Courts Act 1981. I see no reason in this case to exercise the undoubted wide discretion in relation to interest other than to award Amey as a commercial organisation interest at a commercial rate over the entire period from when it should have been paid the assessed amounts to the date of judgment.

38. **Glossary**

- 38.1 To assist those who may benefit from it, I provide a short glossary of abbreviations used in this judgment.

AAV	Aggregate abrasion value
AEL	Amey Engineering Laboratories Limited

CECA	the Civil Engineering Contractors Association
DLO	Cumbria's direct labour organisation
HMSS	the Highways Maintenance Services Specification
HPS	the Highways Pricing Schedule
HRA	Hot Rolled Asphalt
HRA 55%	Hot Rolled Asphalt 55%
LMS	The AEL Laboratory Management System
MEWPs	Mobile elevated working platform vehicles
MUSP	Make up of selling price
NDT	Nuclear density testing
OCR (1)	Optical character recognition, for electronic documents
OCR (2)	Amey's Occupational control room
PSV	Polished stone value
PTS	Pavement testing services
RPIx	Retail price index excluding mortgages
SCC	the schedule of cost components
SHW	the Highways Agency's Specification for Highways Works
SSCC	the shorter schedule of cost components
TCSC	Thin surface course system