



**Talk By Gerry McCaffrey
to Adjudication Society, Edinburgh
27th Feb 2003
Practical Planning
and the SCL Delay and Disruption Protocol**

“The Devil is in the Detail”

Introduction

1. Good evening ladies and gentlemen. Recently Alan McAleer asked me if I would ‘do a talk about the SCL Protocol’. He thought that I may provide an interesting insight into some of the finer points. I was advised that the format of tonight was to be a sort of debate and I would be one of two speakers. Speaker ‘A’ was to be a lawyer who would discuss legal issues implicit within the Protocol. Speaker ‘B’, a planner, me, was to focus on the practical issues flowing from Protocol. Fine I thought, then came the rub. Alan advised me that the lawyer was to be the hawk - he or she was to point out the controversial legal difficulties intrinsic to the Protocol while I was to breath some helium into, what by then would be a lead balloon. Like a dove I was to underscore the clear practical advantages to the Construction Industry in the wake of this landmark publication! The final show of hands was to decide who carried the motion “Is the SCL Delay and Disruption Protocol a good thing or a bad thing for the construction industry”. It would have been a forgone conclusion. The imbalance in debating skills between a construction lawyer and a construction planner coupled with the controversy attaching to the ideology proposed in the Protocol would seal the debate in favour of the hawks.
2. Not wishing to become a lamb to the slaughter I suggested to Alan that perhaps he may wish to review the format of this evening. Perhaps the lawyer

could address legal pluses and minuses and I could address the pros and cons of the operational practicalities. Alan liked it – bounced the idea off Neil Kelly and Neil bounced his directive onto me – “*Gerry, just do all of it...and furthermore, bear in mind that lawyers and adjudicators like interesting things like principles – don’t go heavy on the diagrams and the detail. Its boring*”. Anyone who has dealt with me knows that I cannot articulate without reference to sketches and drawings not to mention barcharts and logic. In short, it’s an engineers backstop.. “if words fail see sketch”. In round terms I’ve spent 10 years as site engineer, 10 years as planner and recent years as an un-planner. By training and practice I find that the most persuasive means of communication is often pictorial. Notwithstanding the imposed limitations, here goes, no death by PowerPoint, no charts, just words – but I do hope you’ll forgive the 2 minute video! (Click [here](#) to download or contact writer, consolidates paragraphs 19 to 23). If I get the law wrong forgive me.

Subject Matter for Tonight’s Topic

3. In preparing for tonight’s talk I put myself into your shoes. What would interest you? Neil advised me that the audience will consist mostly of lawyers, adjudicators, quantity surveyors and perhaps a small sprinkling of architects. Potentially the Protocol has something for all of you, especially the architects as contract administrators.

4. Given that the scope of the document is wide it is necessary for me to restrict my 45 minute discussion to a narrow focus to address a subject which I think may be of interest to the majority. As the Adjudication Society is host and, as I was reliably informed by Scotland’s, and one of the UK’s, busiest adjudicators, Ms Janey Milligan, that $\frac{3}{4}$ of all adjudications are pressed after contract completion – I feel duty bound to discuss how the Protocol recommends dealing with disputed requests for extensions of time after project completion. Some adjudicators already have had and others are sure to receive submissions on precisely this point and these submissions *prima facie* draw support from the existence of the Protocol. Guidance Section 4 lays out the relevant ground rules. This is to be distinguished from Guidance Section 3

which deals with extensions of time during the currency of the works. Different principles apply. The subtle but highly relevant distinction is that in Guidance Section 3, the future is in the future. It refers to contemporaneous time impact analysis. Within the ambit of Guidance Section 4 the, future is in the past. That is to say, the facts pertaining to delay to completion exist as retrospective delay analysis is contemplated.

Brief Background to Protocol

5. The Protocol was initially conceived in June 2000. The SCL set up a working group and within a year-and-a-half the first consultation draft was issued. Anyone who wished to express a view was invited to do so. I am advised that over 400 written submissions were lodged. In May 2002 the second draft for consultation was published. Four months ago the final publication was launched.
6. Its objective is to provide useful guidance on delay and disruption issues which arise in construction contracts. The Protocol has no legal authority. Without the benefit of judicial commentary it's weight, if any, is presently dependent upon the combined reputations of the SCL's drafting committee. If parties wish to rely upon it they must give effect to it in their contract.

Discussion

7. The drafters of the Protocol issued a combined statement 2 months ago under the banner "The boys done good". Within the article they have quoted "this is not a radical document". To most readers there is nothing radical or new in the Protocol. It does not provide new tools for either contemporaneous or retrospective delay analysis. In fact the Protocol does not actually spell out how existing delay analysis techniques should be applied other than the briefest description of contemporaneous time impact analysis which occupies the bottom third of page 43. Three other delay analysis techniques are discussed in half-a-page at page 46 under the heading "The nature of Proof Required". In short, the practical application of delay analysis techniques, i.e.

how it is to be done, occupies a total of less than one page in this 82 page document. I will return to this point.

Core Principles

8. What the Protocol does do is to express a firm view on certain principles with an aim of providing clarity on some issues which occasionally attract controversy. Most of the 21 core principles will be accepted by all with no comment as they are simply common sense and sensible objectives. Noteworthy is the notion of “contractual entitlement” to additional time. It is stated¹ and repeated² that the assessment of additional time to be awarded to the contractor flowing from Employer Risk Events is not referable to actual time taken. The distinction is the contractor’s *entitlement to time* as opposed to the *need for time* in order to stave off LD’s. Dealing with this notion in disputed claims after contract completion presents arbiters and adjudicators with philosophical difficulties. The entitlement based approach is not rooted in familiar cause and effect analysis. I have been involved in a number of cases where early legal strategy centres on the question of “What type of approach do we take” and the terminology used refers to (a) cause and effect approach or (b) entitlement based approach. Major international arbitrations are being pressed with competing philosophies.

Float

9. In relation to the perennial question “who owns the float?”, the apparent default position adopted by the Protocol³ is that first to use it owns it, or put another way if you’re not fast your last. This issue of float is dealt with very narrowly within the Protocol. There is little distinction between ‘terminal float’, which is the period between Planned Completion and Contract Completion and numerous other shades of float. This is not for discussion tonight. It’s too dry a subject and seemingly inconsequential to non-planners.

¹ Core Principle 4

² Guidance Section 4, paragraph 4.8

³ Core Principle 7

To be fair, in post contract disputes the finer points of float are rarely relevant.⁴ However if programmes were to be developed to the level of detail expressed within the Protocol the different classifications of float could become material issues during the currency of the works. In my tender planning and progress tracking days I regularly had material dialogue with site agents and project managers in relation to sub-categories of float, especially in relation to how transparent the programme should be.

Concurrency

10. At first blush the Protocol underlines settled law. In cases of concurrent contractor delay and employer delay the contractor is entitled to an extension of time. The principle, as I have just expressed it, is very easy to enunciate and seemingly simple to understand. The Protocol provides an express definition of what it deems to be concurrent delay. In doing so a rather complex and very carefully crafted vocabulary has been developed. In interpreting the meaning the issue of ‘tense’ is crucial. Considerations of past, present and future tense pervade almost all parts of the Protocol. The definition as expressed is inextricably bound into the notion of time impact analysis, i.e. mapping out the effect of a delay at the point in time when it occurs. It is the following precise definition which enables the Protocol to make, what is to me, the mind boggling statement that true concurrent delay is a rare occurrence.

‘True concurrent delay is the occurrence of two or more delay events at the same time, one an Employer Risk Event, the other a Contractor Risk Event and the effects of which are felt at the same time. The term ‘concurrent delay’ is often used to describe the situation where two or more delay events arise at different times but the effects of them are felt (in whole or in part) at the same time. To avoid confusion, this is more correctly termed the concurrent effect of sequential delay events.’⁵

11. Let us examine the components of this definition.

⁴ Detail considerations of different float types could destabilise all but the simplest Collapsed As built Analysis.

⁵ Appendix A – Glossary – Page 53.

<u>Express Definition of Concurrency</u>	<u>.....interpretational issues.....</u>
<i>True concurrent delay is the occurrence of two or more delay events at the same time,</i>	<p>It is fundamental to time impact analysis that a precise date is identified as the “timenow” date or the “data date”. The ‘Impact’ of the event is processed from that date. Therefore ‘at the same time’ is more accurately stated to mean delay events with a coincident start date – the exact same start date.</p> <p>This is a material point. There can be several per day. See paragraph 32 for small dispute.</p>
<i>one an Employer Risk Event, the other a Contractor Risk Event</i>	Confirms that ‘concurrency’ refers to concurrent liability, not just concurrent delays. This is often a major hurdle. Contemporaneous admission of liability is the holy grail.
<i>and the effects of which are felt at the same time.</i>	<p>What does this mean? In carrying out time impact analysis of an Employer Risk Event⁶ one is actually estimating a delay which could arise at some time in the future. It could be a year or more in the future.</p> <p>The forecast effects are therefore not “felt at the same time”, they are predicted at the time. In fact the specific forecasted delays will never be felt or incurred in the usual course of events. The work content in connection with “<i>true concurrent</i>”⁷ delay is highly unlikely to be carried out at the same time. It is only that the predicted delay to the contract completion date is predicted on the same day.</p>
<i>The term ‘concurrent delay’ is often used to describe the situation where two or more delay events arise at different times</i>	<p>Event A ■■■■■■■■■■</p> <p>Event B ■■■■■■■</p> <p> ←=====→ Not ‘Concurrency’</p>
<i>but the effects of them are felt (in whole or in part) at the same time</i>	
<i>To avoid confusion, this is more correctly termed the concurrent effect of sequential delay events.’</i>	The materiality of the exact date for ‘timenow’ or the ‘data date’ is relevant here. The difference of one day between the Impact Date for Events can have considerable influence on the duration of the delay assigned to either an Employer Risk Event or Contractor Risk Event.

⁶ As directed under paragraph 3.2.7.3

⁷ Using the Protocol’s definition

12 The Protocol envisages the creation of a sub-network, i.e. an event, for incorporation into the updated critical path network. There is considerable scope for debate between planning experts in relation to identifying the start date of an event. The guidance given by the Protocol at Core Principle 5 and reiterated in bold at paragraph 1.2.12 is that the event: (a) Does not need to have *begun to affect progress* or (b) for the effect of the event to have ended. The thrust of the Protocol encourages dealing with and facing up to the thorny issue of delay contemporaneously – “do not wait and see” – It is the central tenet of the Protocol. No-one can argue with the fairness of this principle. At paragraph 3.2.9 the Protocol expressly advises upon the content of the sub-network for a variation. It should contain (i) the instruction for the variation (ii) the activities required to carry out the variation and (iii) the linkage into the updated programme. The material subtlety embedded in such advice is that the sub-network will contain the date of the instruction. It can be identified by planning experts as signalling the start date of the Event. At first impression this seems fair to both parties. In the world of time impact analysis this means that ‘timenow’ date has been identified and support can be drawn from the Protocol to validate that the date of instruction is a reasonable date for the variation to “take effect”. Much will turn on the seemingly innocuous phraseology of “taking effect”.⁸

Illustration By Example⁹

13. Consider the following scenario. A 12 month contract running from 1st Jan to 31st December for the construction of an office block. The contractor produced the programme in accordance with best practice of the Protocol. That is to say that from week to week the contractor can forecast 3 months ahead in reasonable detail. Beyond the rolling three month look-ahead ‘*only major activities and milestones*’ are programmed. I term this as summary level programming. This is a reasonable reflection of real construction life for well planned construction contracts of medium complexity.

⁸ See Summary of Main Changes To the Protocol dated 15th October 2002 (*‘taking effect’*)

⁹ The example developed is certainly of the character that will arise in “*Large Complex Projects*” which the Protocol has been drafted for. See Appendix B – Model Specification Clause.

14. On 1st Feb a variation is issued which affects an activity which is to be carried out during the months of June and July. The activity description is “Construct Walls, Columns and 1st Floor Slab”. It is on the critical path. By necessity the network logic flowing into and out of this 8 week bar¹⁰ is instinctive and judgement based as such logic is addressing only *major activities and milestones*. This is to be distinguished from the interconnecting logic binding the more immediate activities in the three month look-ahead. Such logic is more likely to be underpinned by analysis of construction issue drawings and method statements that are about to be implemented. I will refer to this as detailed logic and the former as summary logic.

15. Returning to the scenario, both employer and contractor agree that the variation does affect the scope of some of work encapsulated within the description of the *major activity*. Upon receipt of the variation the contractor proceeds to produce his sub-network. What does the contractor do? What is the predictable effect of this known change to the scope of the work? Let us take the simplest case of a quantity change. Assume that the variation had the effect of increasing the tonnage of slab reinforcement from 30 kg/m² to 40 kg/m². The scope of the work delineated within this *major activity* description encapsulates more than slab reinforcement. However the scope of this *major activity* has not been resolved into the construction detail which is necessary to meaningfully identify the consequent ‘*linkage into the updated programme*’¹¹ flowing from the change to the scope of the work caused by the variation. Of course this is a matter of opinion.

16. The contractor’s commercial position may be best served by adopting the position that the programme is reasonable as it is aligned to the high standard prescribed by the Protocol. In other words the use of summary logic which links *major activities* is adequate for the purpose of modelling the effect of

¹⁰ It is not uncommon for activities to have a duration of 6 to 9 months. The longer the project the more likely the programme will contain activities having long durations. This maintains programme flexibility which is vital for practical management of the works. It is rarely necessary and often not advisable to express a detail strategy in a programme for works which are to be carried out far into the future.

¹¹ Paragraph 3.2.2

Employer Risk Events. The practical benefit of this approach to the contractor is that the ‘timenow’ date is months in advance of the varied work being undertaken. Given Protocol guidance, the contractor can advance the argument that:

- (a) The eight week bar is critical.¹²
- (b) The variation increases the scope of the activity.
- (c) It is a Core Principle of the Protocol that the duty to mitigate does not extend to working additional hours or increasing resources.¹³
- (d) The critical activity requires to be increased in duration and this is predictable at the date the variation was issued.
- (e) An extension of time is due. The period will be calculated subjectively but related to:
 - (i) The percentage increase in reinforcement.
 - (ii) The sub-period within the eight week duration which is ‘deemed’ to attach to the reinforcement.

17. The contractor may put it to the employer that, given this timely notification of the delay, the employer may wish to consider a separate agreement to pay the contractor to mitigate, i.e. to effectively ‘buy out’ this projected delay. In other words, the grounds for seeking more than just “bill rates” for carrying out the additional work are in place and seemingly supported by the Protocol’s preferred method of analysis which is time impact analysis.

18. The employer (and contract administrator) have a decision to make.

¹² I have deliberately kept this simple. I could have chosen a *major activity* with a small degree of float. This would really put the cat amongst the pigeons.

¹³ Core Principle 13 and repeated at paragraph 1.5

Discussion

19. Let us examine some of the underlying issues more closely, including that of good planning and programming practice. In considering individual activity durations and their inter-relationships the personal site experience of the planner is crucial. If the planner has direct experience of the particular type of project in a site construction role, then the confidence in the programme produced will be increased. In these circumstances the person constructing the critical path network is entering their own knowledge of construction processes into the programme. In some circumstances the planner may have insufficient site experience related to the implementation of construction work that now requires to be planned. In such circumstances the skill required of the planner is to elicit reliable information from colleagues who have the requisite site experience and incorporate this into a programme. It is often an iterative process with an exchange of numerous interim ideas. Often the experience and information that the planner seeks may not be available in-house and reference to a sub-contractor is necessary in order to gain an insight into the detail of the construction processes. In modern construction the use of specialist sub-contractors is increasing. Correspondingly the likelihood of the detailed planning knowledge existing in-house decreases thus increasing the planners reliance on external sources for this information. Reliance on others increases the time required to plan.

20. What actually happens in practice is that many questions are never answered. In fact many questions touching upon detailed planning are never asked. The further that an activity lies in the future, the less relevant is the immediate consideration of the detail construction processes attaching to that activity. The larger & longer the construction project, the truer this is. There are exceptions to the rule where detailed planning is required perhaps a year or in some cases even more in advance of execution.¹⁴ The practical mechanism for dealing with the obvious uncertainties surrounding individual activity

¹⁴ For example High Capacity Mobile Crane - Must place order 12 months in advance. Must carefully plan the intended scope of work associated with preparing for the lift. Or particularly tricky access construction issues foreseen early enough.

durations and logic is to (a) draw back from expressing activity detail and (b) apply conservative durations, in effect create contingency. In doing so the planner provides the project manager with a flexible programme within which the work is to be managed. Furthermore, when planning at this level the analytical tools used are blunt. Often the planner, project manager and if the programme is politically sensitive perhaps a construction director will ponder over the degree of overlap between bars on a programme. In the minds, perhaps two activity bars are sliding back and forth relative to one another until a decision which is instinctive, commercial and acceptable in all the circumstances is made. What is being considered is the material work content of each bar and how they can meaningfully be scheduled relative to one another. It is generally¹⁵ the relationship between the activity finish dates which is all important at this stage confirming the adage '*it's not when you start, it's when you finish*'. As a sidenote, it is clear to anyone who frequently examines as-built programmes that an activity start is often characterised by piecemeal and disconnected working. This is a function of collating detailed as built information and recording it against a summary level programme.

21. Logically linking such summary level activity bars is a perfunctory task. To what extent can such logic be relied upon? Notwithstanding this, the legal rights which the Protocol attaches to this logic is monumental. Whilst the Protocol recognises that work beyond the rolling three month window is planned as *major activities and milestones only* it does not make any comment in relation to the usefulness and utility of the critical path which emerges from summary level programming interconnected with summary level logic.

22. I return to the issue of our eight week bar. The activity "Construct Walls, Columns and 1st Floor Slab" is a construction project in its own right. When the time is right, this activity will require to be examined in more detail in order to enable the procurement and management of labour, plant, permanent and temporary materials. This expansion of detail will form the substance of

¹⁵ There are exceptions. Especially if the main contractor seeks to start a sub-contractor on a given date that the sub-contractor has geared up for. Unfortunately delay analysis is peppered with exceptions to the rule. Nevertheless trends do exist.

the more detailed three month look-ahead programme and ultimately the work content will appear on the week to week working programmes that are often produced by section engineers and foreman. It is in the progressive expansion of this detail the competence of summary level programming is tested. Let us examine the situation which arises in a well planned construction project. In cascading down to the activity detail implicit within the summary bar those responsible for site implementation, and this rarely is the planner, create the activities which matter to short term management. In some cases the project is running so sweetly and the site staff are sufficiently experienced that there is little need for detail to be formally expressed, it is simply discussed. In other cases there is a clear need to develop and present detailed short term programmes in order to satisfy the needs of various reporting lines, especially if the project is not problem free.

23. When activity detail is developed the drafter has detailed knowledge of the intended construction sequencing. The insertion of logic between activities at this level is systematic and less reliant upon instinct. That does not mean that less planning skill is required. In the creation of activity detail and logic, a critical path network is being created for the scope of the work attaching to the *major activity*. In the creation of activity detail it is axiomatic that activities which have float become increasingly visible. It is an irrefutable law of critical path analysis that increasing the detail increases the visibility of float. The more detailed the programme, the lower the percentage of activities on the critical path. That is to say that the number of activities in float increases as programme detail increases. Who owns this float? I am of course referring to activity float, not terminal float which resides at the end of the project between Planned Completion and Contract Completion. Being more particular I am referring to the float, which for good reason has been unintentionally concealed by the instinctive judgements which underpin summary level planning and programming. This concealed float reflects the uncertainties which the planner has had to deal with.

Summary Level Critical Paths

24. *Large Complex Projects* are procured using various contractual arrangements and, for the most part they are not designed prior to entering into contract. In PFI, Design and Build and Construction Management contracts – the drawings and specifications initially in existence do not allow anything other than summary level planning. Consequently the well planned project will contain contingency within the summary durations.
25. The Protocol discusses the concept of the *initial programme* which is to depict only the first three months of work¹⁶. This is to be submitted 2 weeks after award of the Contract. The first draft programme for submission for Acceptance is to be issued four weeks after award of the Contract and is to address the full scope of the Works.¹⁷ It is not to encompass any changes or delays that have occurred since the contract commencement date. These delays are to be dealt with in accordance with the EoT procedure.¹⁸
26. The underlying point embedded in the above paragraph is that for *large complex projects* the language and thrust of the Protocol encourages a mindset which contemplates the pressing of rights to an extension of time right from the very beginning of a project - a '*large complex project*' which by necessity has a summary level critical path. Furthermore the recommended method for quantifying additional time is so utterly reliant upon a seemingly scientific basis. But in reality a critical path analysis comprising of summary activities and summary logic is an exceptionally blunt analytical tool. At all times one must bear in mind that the critical path is not a matter of fact. It is a matter of opinion. Opinions are open to challenge.
27. In the case of *Ascon v Alfred McAlpine* Judge Hicks noted that while both competing parties had agreed that construction of the lift pit was on the critical

¹⁶ Appendix B paragraph 1.3.1 (First 3 months) and paragraph 1.3.2 (For the totality of the works).

¹⁷ Appendix B paragraphs 2.1 and 2.2

¹⁸ Paragraph Guidance Section 2, paragraph 2.2.1.3.

path, the judge rejected its criticality stating that the issue is “*no doubt a good debating point*”¹⁹.

28. The competing tensions of (i) forging working relationships and (ii) application of the Protocol have the potential to cause rather than prevent disputes. If relationships are unreasonably strained early in the project, the consequences are often far reaching, long lasting and negative. There are many independent studies to corroborate this. To my mind, applications for extension of time which depend on summary logic and summary activity durations could render the programme as being so politically loaded that it will simply lose its identity as a tool to manage the works. It will quickly become the **contractual** programme, not the contract programme which actually matters to the workforce. What I mean by **contractual** is that it will only be used to address issues of liability and not used to manage the works.
29. Exceptionally it will be easily recognisable that an extension of time is due for something that does happen early in a project, for example, failure to give possession of the site will, in nearly all circumstances be critical. Sometimes parties just do not need an analysis to know what is critical and what is not. My focus is directed towards applications for extension of time which do require analysis and that analysis is aligned to the methodologies expressed within the Protocol.
30. In the endorsement of time impact analysis the Protocol is perhaps unwittingly assigning all of the concealed, perhaps more precisely stated as undeveloped, activity float to the contractor. Was this meant? I don't think so. It runs counter to the expressed default position that the project owns the float.
31. It pains me to say so, but my advice to the contractor administrator who is faced with contemporaneous applications for an extension of time for an event which has yet to (a) affect progress, (b) is not **clearly** a critical event and (c) is reliant upon a summary level critical path - is to “wait and see”. Of

¹⁹ Ascon v McAlpine Paragraphs 26 and 27.

course if the employer has knowingly agreed to assign to the contractor all of the flexibility in the summary level programme, i.e. undeveloped float for works to be carried out in the future, and the programme has been formally accepted my answer may be different.

Engineering and Construction Contract

32. Earlier I alluded to a single event, a quantity change to slab reinforcement. In reality many many events are not uncommon. Each requires judgment from at least two different viewpoints. In our small office we currently have a dispute on a small Engineering and Construction Contract. The contract period was 6 months, overran by 4 months, contract value of £1.2 million and over 250 compensation events are being pressed. It is not an exceptional case. By simple arithmetic one can deduce that the increment of critical time attaching to a single event is very small – less than one day in some cases. This is often the nature of complex construction disputes. How can a summary level programming assist in resolving these intractable issues ?

33. The ECC and the Protocol differ very little in the prescriptive programme recommendations. Having a keen interest in programme matters in general I enquire into the planning practices of clients who use the NEC / ECC forms. I have yet to encounter live contracts which satisfy the detailed programme requirements of these forms. However I do know of major contractors and clients who are delighted to use it and regard it as a success. They trust one another. It has little to do with the prescriptive detail relating to detail development of a resourced programme which has to be continually updated and Accepted.

Disputed EoT Claims After Contract Completion.

34. Some practicing adjudicators approached me with apologies in advance of their non attendance this evening. However, they asked me substantially the same question which was “*How should we deal with cases where instinct tells us that the contractor has a case but there is no particularisation and no*

logical time analysis?”. Judge Humphrey Lloyd QC provides excellent guidance and a note of caution in the recently reported case *Balfour Beatty against The Mayor and Burgess of Lambeth*²⁰. The substantive issues included delay analysis on a £3.8m building refurbishment, JCT 98 conditions, original contract duration of approximately 10 months and an as-built duration of about 18 months.

35. The following observations capture the essence of matters related to delay analysis • *Balfour Beatty* had clearly not made their case out analytically • There were 31 headline relevant events with considerable sub-division • averments of a continually fluctuating critical path • no progress recorded on any programme • general records hopelessly vague • no attempt to demonstrate link between trades • failure to give proper notices • respondent making no positive case • programmes drawn rather than linked • adjudicator unable to make use or sense of the material submitted to him • global assessment •

36. Notwithstanding the foregoing the adjudicator awarded *Balfour Beatty* an extension of time for almost the full period. He used his initiative to ascertain the facts. The respondent, *Lambeth* had argued that *Balfour Beatty* had not used one of the recognised delay analysis techniques and quoted these from the Protocol. The adjudicator was one of the drafters of the Protocol. The adjudicator having failed to elicit meaningful development of the case from *Balfour Beatty* took up the cudgels and got on with the delay analysis himself and issued his award. The judge noted that the adjudicator proceeded in a methodical manner. *Lambeth* refused to pay up. *Balfour Beatty* commenced enforcement proceedings...and lost. The judge refused to enforce the Award. The adjudicator had proceeded to develop the delay analysis using the “Collapsed As Built” technique. In doing so he made judgements as to matters of fact and opinion. Crucially, he failed to canvass his analysis with *Lambeth* prior to issue of the Award. In the judge’s words:

²⁰ Technology and Construction Court April 2002.

“In my judgement constructing (or reconstructing) a party’s case for it without confronting the other party with it is such a potentially serious breach of the requirement of either impartiality or fairness that the decision is therefore invalid.”

37. *Lambeth* tendered evidence from a planner which challenged the whole rationale of the analysis of the adjudicator. The judge did not proceed to the merits and deemed the planners evidence irrelevant. The Award was reduced as natural justice had been breached.

38. Observations by the judge which are noteworthy are;

(a) The dispute attracts a simple description but comprises a highly complex set of facts.

(b) It may well be doubted that adjudication was intended for such a situation.

(c) The judge considered the following to be *elementary information* that *Balfour Beatty* should have provided:

(i) Setting out of Each Relevant Event.

(ii) The date of the Event.

(iii) The activity **directly** (emphasis mine) affected by the Event.

(iv) The nature of the effect, for example

1. Delay to start or

2. Extension of Duration or

3. Delay to Finish

(v) The timing or date of that effect and any necessary comment.

- (d) The provisional nature of the adjudicator's decision justifies ignoring non-material procedural breaches and the process is not to be thwarted by procedural niceties.
 - (e) If the adjudicator does not think that a proper decision can be made in the time. He should invite the parties to agree further time. If there is no agreement to this he should resign.
39. It is to be noted that the law may be different in Scotland. In *Karl Construction v Sweeney* the judge supported the adjudicator in taking considerable latitude and *Balfour Beatty v Lambeth* may have been decided differently in the Scottish Courts.

Conclusions

40. I have spoken from the viewpoint of a planner who has operated in civil engineering and building contracts which have been procured using primarily ICE and JCT conditions. In most of these projects the works were largely designed and reasonably detailed drawings existed from the outset. A notable exception to this was when I was committed as full time Senior Planning Manager on a large complex building project with a three year construction period. The scale of uncertainty escalated as the works were procured in a Construction Management environment and the detail design evolved in parallel with construction. The opportunity to apply detailed planning skills sharply decreased in this environment since the master programme is often more politically driven rather than technically driven. I have not worked on a PFI project. I can only imagine that the scope for uncertainty steps up yet again and thus the reliance on programmed predictions requires to be tempered to an even higher degree. I consider myself fortunate to have developed my planning skills in more certain construction environments as it enabled me to make contemporaneous use of critical path analysis. In applying critical path analysis to live projects one gets a working knowledge of the nuances and peculiarities it can throw up and to appreciate at first hand its limitations.

41. Has the Protocol has been produced by dispute resolvers who have not planned and more importantly not “progress tracked” a live construction project? From the first draft the Protocol has had it’s hawks and doves. A website was set up to capture the comments of contributors. Having downloaded and read every contribution and having made my own – it was clear to me that the doves were, believe it or not, not experienced planners. I tried to carve the path of a neutral hawk – I realise that this is almost an oxymoron but I did not want to upset the opinion formers. However, as I started committing tonight’s talk to print, I cannot suppress my true opinion. The Protocol is doomed to make very little difference to the construction process and is likely to obfuscate the dispute resolution process.
42. Despite the proclamation within “The boys done good”, the document is a radical document. Where it is radical is that it lists a small number of delay analysis methodologies and it **prioritises** them. It is my view that each methodology has a part to play. A single dispute may draw on all methodologies at some point of the analysis. The appropriate techniques to use and the emphasis placed on that technique depend on the facts and the complexity of the project. The techniques should not be prioritised, especially in retrospective delay analysis.
43. Earlier this month the “The Witness” contained an article which examines some of the precepts upon which the Protocol is founded. It was written by a Mr Paul Starr, a Partner of Mallesons²¹ in Hong Kong. The article signifies a milestone in the formerly cohesive image of the SCL in relation to the Protocol. Mr Starr is former chairman of the Society of Construction Law in Hong Kong. Are the cracks beginning to show?
44. Earlier I referred to the brevity of the Protocol in relation to the specifics of the practical application of delay analysis methodologies, i.e. the “how it is to be done”. A statement of principles is of very limited use in delay analysis.

²¹ Mallesons Stephen Jaques – Leading Commercial Law Firm focusing on Asia Pacific.

It is in the application of these summary level principles to the vagaries of construction life that the weaknesses in any single methodology very quickly emerges. That is why judges and arbitrators for many years have repeatedly asked the question – “but what actually happened”. There is a comfort zone in the facts that is simply not there with the seemingly more sophisticated methods of delay analysis. In retrospective delay analysis the benefit to be had by investigation of the as planned v as built programme is not nearly as limited as the Protocol suggests. Assuming adequate records are kept the comparison between as-planned and as-built can be explained by reference to all that has gone before. This will involve the development of theoretical positions which may have arisen but for mitigation measures. A thorough correspondence review, reference to intermediate programmes and interviews with key staff will elicit the facts that can be relied upon. So – as the Protocol says – keep good records.

Other Practical Matters.

45. Within this paper I have not discussed practical issues such as:
- (i) progress reporting (time based or work content based),
 - (ii) prospective modelling of Contractor Risk Events,
 - (iii) the implications of the express terminology “delay to progress”,
 - (iv) the default position that Employer Risk Events are to be analysed prior to Contractor Risk Events,
 - (v) the practical difficulties associated with the contract administrator’s version of the programme taking precedence over the contractor’s,
 - (vi) peculiarities of different planning software packages,
 - (vii) the benefit to be had to contractors by submission of tight programmes,
 - (viii) As the number of impacted events increases the less likely the programme remains meaningful for construction purposes.
 - (ix) Stepping down into sub-contract programmes from Master programmes.
 - (x) Global Claims – the reality.

...primarily because Glasgow Celtic are playing Stuttgart tonight and they kicked off about 25 minutes ago.

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