



In this our Autumn 2016, newsletter, contains two articles. The first is 'City Inn and Subsequent; An Expert's View'. The article gives an insight into Concurrent Delays and the important Court Judgments on this controversial topic.

Our second article is titled, 'An Introduction to EVM'; and is an explanation of Earned Value Management ('EVM') which is becoming more popular as a method of Project Control for ongoing projects, and as a forensic tool to demonstrate loss of productivity.

If you wish to discuss any of the matters or points we raise in these articles, please do not hesitate to make contact.

Latest News on Roger Gibson's Books

The first book: '**Construction Delays; Extensions of Time and Prolongation Claims**', published by Taylor and Francis.

The book was published some 8 years ago, and monthly sales are still very good.

The book has been translated into Mandarin Chinese and published in this language in 2010. Again, sales are very good.

The second book, '**Acceleration and Productivity Disputes in Construction and Engineering Projects**', was published by Wiley Blackwell in 2015.

Now approaching some 12 months since publication, sales are very good.

Roger's third book, '**Managing Extension of Time and Prolongation Claims**', is essentially an update of his first book. Preparation of the manuscript is well underway and the completed version should be with the publishers, Taylor and Francis, early next year.

Roger's fourth book, '**Managing 'Time' under the NEC3 Contract**', is still very much in the embryonic and research stage.



Testimonials

Here are two extracts from an Adjudicator's Award, where Roger Gibson's Expert Report was presented by the Referring Party in a dispute regarding an extension of time.

"I accept Mr Gibson's opinion that the period programmed for the M&E works in the xxx was reasonable and that this was work which was probably most dependant upon weathertightness and roof completion."

"I therefore give greater weight to the report of Mr Gibson."

Here are four extracts from an Adjudicator's Award, where Roger Gibson's Expert Report was presented by the Responding Party in a dispute regarding an extension of time, and disruption.

"For the reason that Mr Gibson has undertaken a detailed analysis, I regard his evidence to be of critical importance to me."

"Furthermore, Mr Gibson has answered the criticisms of his first report in a further report submitted with the Rejoinder."

"I therefore accept Mr Gibson's conclusions that further delay occurred during this 'window', but that in accordance with his charts that the additional delay was 10 workdays, not 32 as claimed."

"I accept the conclusions of the expert evidence of Mr Gibson that the delays and disruption to xxx's works were not caused as a consequence of their own failures."

"Dear Mr. Gibson, I read your book Construction Delay: Extension of Time and Prolongation Claims and really enjoyed with your clear and concise style on such a difficult subject."

Mr W. Jook, Hong Kong



Concurrent Delays and City Inn; An Experts View.

In 2010, the Inner House of the Court of Session in Scotland issued its judgment in City Inn v Shepherd Construction. The Scottish Court decided that where two concurrent causes are operative, one being a relevant event and the other being an event for which the contractor is responsible, the certifier should approach the matter in a fair and reasonable manner and apportion the delay between the causes unless one of them is dominant.

The analysis of concurrent delay by the inner house is of great interest, particularly the adoption of apportionment as a general means of fair and reasonable assessment of extension of time.

What are Concurrent Delays?

A question that frequently arises is the method of dealing with extensions of time which may be due to either or both of two causes, i.e. concurrent delays. The more complex the project the more likely that this issue will arise.

Concurrent delays, refer to delay situations when two or more delays, regardless of the type, occur at the same time or overlap to some degree – either of which had the delays occurred alone, would have affected the project completion date.

It is important to differentiate between the delaying event or cause and the delay itself. It is generally recognised that there are times when there are delays which may be the result of different causes, but that sometimes the causes will run at the same time or overlap. This makes it difficult to decide how to treat the delay, particularly if the causes originate from different parties or the delays are of different kinds. For example, under most forms of contract, some causes may give the contractor entitlement to an extension of time; some causes may give the contractor entitlement to an extension of time and also loss and expense, whilst other causes may not entitle the contractor to any extension of time or loss and expense whatsoever.

In analysing concurrent delays, each delay should be assessed separately and its impact on other activities and the project date for completion calculated. Much will turn on the quality of planning and programming, and record keeping. Not only will there often be several delay events running in parallel, but there may be parallel critical paths to contend with and periods of acceleration and/or mitigation to take into account. The contract conditions will also have to be taken into account on the analysis technique used.



Concurrent Delays and City Inn; An Experts View(Cont'd).

The prominent authorities on concurrent delay.

There are three disputes which are generally considered to provide the leading authorities on 'concurrent delay'. These are,

- 'Chestermount',¹
- 'Malmaison',²
- 'Brompton'.³

'Chestermount' was heard before Mr. Justice Coleman in the Commercial Court, and arose from an appeal against an Arbitration award of Mr. Christopher Willis.

The following preliminary question was put before the Court,

"In granting an extension of time in respect of the Relevant Event occurring during a period of culpable delay, ought the Architect to award a 'gross' extension (that is one that re-fixes the Completion Date at the calendar date upon which the work would reasonably be expected to be completed, having regard to the calendar date upon which it is instructed), ought it to be a 'net' extension (that is one which calculates the revised Completion Date by taking the date currently fixed and adding the number of days which the Architect regards as fair and reasonable)."

The Court confirmed that the correct approach was that the architect should start with the existing completion date and extend it to the date that he considers 'fair and reasonable', having regard to the delay caused by the requirement to execute the variation instructions. The Court confirmed that it was the 'net' method that was appropriate.

The 'Malmaison' case also concerned concurrent delays. In his judgment, HHJ Dyson considers how two concurrent causes of delay should be determined; one being a relevant event such that a contractor was entitled to an EOT and the other having no entitlement to an EOT. The judge said, *"It is agreed that if there are two concurrent causes of delay, one of which is a relevant event and the other is not, then the contractor is entitled to an extension of time for the period of delay caused by the relevant event, notwithstanding the concurrent effect of the other event. Thus to take a simple example, if no work is possible on site for a week, not only because of exceptionally inclement weather (a relevant event), but also because the contractor has a shortage of labour (not a relevant event), and if the failure to work during that week is likely to delay the works beyond the completion date by one week, then if he considers it fair and reasonable to do so, the architect is required to grant an extension of time of one week."*



Concurrent Delays and City Inn: An Experts View (Cont'd)

HHJ Dyson went on to say that an architect is not precluded from considering the effect of other events when determining whether a relevant event is likely to cause delay to the works beyond completion.

Following on from Henry Boot, Judge Seymour QC in his judgement in 'Brompton' provided a further explanation of what is meant by events operating concurrently. Where a Relevant Event occurs after a contractor-responsible event but runs concurrently on the critical path, this is referred to as net concurrency. But for either true or net concurrency to occur, the events must be shown to be on the critical path of the programme. In his judgement, His Honour Judge Seymour QC stated:

"...In order to make an assessment of whether a particular occurrence has affected the ultimate completion of the work, rather than just a particular operation it is desirable to consider what operations, at the time the event with one is concerned happens, are critical to the forward progress of the work as a whole."

In other words, an event complained of must be shown to have been on the critical path as opposed to one that is merely concurrent with the critical path. If an event is not on the critical path, it cannot affect completion and hence there is no entitlement to time.

City Inn v Shepherd Construction.

Background

City Inn employed Shepherd Construction to build a hotel in Bristol under a JCT 1980 form of contract, with bespoke amendments. A dispute arose concerning Shepherd's entitlement to an extension of time; with the delay to the completion date being due to a number of concurrent causes. Some matters for which the contractor was responsible as well as matters for which the employer was responsible.

The contractor had been awarded a 4 week extension of time by the architect; and after referring the matter to Adjudication, was given an additional 5 weeks by the adjudicator. City Inn were unhappy with the adjudicator's decision and took the matter to the Outer House of the Scottish Court of Session.

The Judgment of the Outer House of the Scottish Court of Session⁴

Following a trial of almost 30 days, Lord Drummond Young issued his decision.

A major issue of the case was causation and delay. On this issue, Lord Drummond Young referred to clause 25 of the JCT contract, and said that under this clause the architect was to exercise his judgment and fix a "fair and reasonable" completion date. He held that an apportionment exercise may be necessary where there is concurrency and no dominant event.



Concurrent Delays and City Inn; An Experts View (Cont'd)

The parties had been unable to locate an electronic, logic linked version of the original programme and so had to use a basic programme showing the activities and durations of the project. Lord Drummond rejected City Inn's expert evidence which tried to establish, retrospectively, a critical path which led to the conclusion that Shepherd was not entitled to any EOT at all. Instead, he favoured Shepherd's expert who said that he had attempted to establish a critical path, but that it was impossible to do so accurately. Lord Drummond preferred this common sense approach and found that, using this analysis, Shepherd was entitled to 9 weeks EOT. City Inn appealed, and the matter proceeded to the Inner House of the Scottish Court of Session.

The Judgment of the Inner House of the Scottish Court of Session⁵

The majority opinion was delivered by Lord Osborne, and he endorsed the approach taken by Lord Drummond Young in the previous judgment.

However, the judgment of the Inner House sets out five principles relating to the evaluation of a delay and 'loss and expense' claims.

1. For an extension of time claim to succeed the relevant event must be shown to be likely to cause delay or have caused delay, and that completion of the works is likely to be delayed or has been delayed by that relevant event.
2. Whether or not a relevant event causes delay is a question of fact to be determined by common sense.
3. It is for the decision maker to decide what evidence to use in forming his conclusion. This may take the form of a critical path analysis, but that the absence of such an analysis does not mean the claim will necessarily fail. What matters is that the evidence used is sound, whatever form it takes.
4. If there is one dominant cause, all other causes will be disregarded. The dominant cause must be a relevant event for a claim to succeed.



Concurrent Delays and City Inn; An Experts View (Cont'd)

5. Where a situation exists in which two causes are operative, and one is a relevant event and the other is caused by the contractor, and neither can be described as a dominant cause, it will be open to the decision maker to approach the issue in a fair and reasonable way to apportion the delay between the causes

Furthermore, the court also approved the lower court's decision to the effect that the same approach should be applied to claims for loss and expense under the JCT Form.

In contrast Lord Carloway, in his dissenting opinion, agreed with the overall result of the other judges, but applied different reasoning. He considered that apportionment was not the correct method of awarding extensions of time between two concurrent causes of delay

My observations and views.

- 1) For there to be concurrent delays in the sense that that one is a relevant event, i.e. an employer-responsible event, and the other is a contractor responsible event; both events must be shown to be on the critical path of the project.

In my view, they are to be demonstrated as being on the actual critical path of the programme at the time of the events.

- 2) When faced with the problem of concurrent delays, it is always worthwhile pausing and asking whether the delays really are concurrent; as most delays are in fact consecutive. The test is to look at the project's critical path. Delays will generally be consecutive unless there are two or more critical paths. On some projects, several critical paths running in parallel is not uncommon, but even in such cases, true concurrency is rare. Usually, after investigation it can be established that one delay occurs after the other. Or, for example, only one delay is affecting the critical and the other delay is using up only available float, the non-critical delay is not delaying completion of the project.

Therefore, before the question of concurrency arises at all, it must be established that there are two competing causes of delay operating at the same time and affecting the critical path or paths of the project.

- 3) Apportionment. It is my understanding that apportionment is not applied as a general principle in English Law to the entitlement to extension of time in the context of liquidated damages. Lord Carloway's approach is most consistent with established English Law. It remains to be seen as to whether Lord Osborne's expansive approach agreed by Lord Kingarth is unlikely to be followed in English Law



Concurrent Delays and City Inn: An Experts View (Cont'd)

Scottish decisions to not binding in England, and the City Inn decision by the Scottish Inner House has received a mixed reception from UK commentators. However, it can influence the decision making of Adjudicators and Arbitrators, and it remains to be seen whether it will be approved by the courts in England.

Roger Gibson
October 2010

¹ Balfour Beatty Building Ltd v Chestermount Properties Ltd [1993] 62 BLR1.

² Henry Boot Construction (UK) Ltd v Malmaison Hotel (Manchester) Ltd [1999] 70 Con LR 32.

³ The Royal Brompton Hospital v Frederick Alexander Hammond and others (no. 7) [2000] 76 Con LR 148.

⁴ City Inn Ltd v Shepherd Construction Ltd [2007] CSOH 190.

⁵ City Inn Ltd v Shepherd Construction Ltd [2010] CSIH 68.

Roger Gibson was the only Planning/Programming Expert who gave oral testimony and was cross-examined in the 'landmark' case of Royal Brompton Hospital NHS Trust v

Frederick A Hammond & Ors [2000] EWHC Technology 39. The cornerstone of his evidence was his critical path analysis of the project supporting the factual circumstances of the delaying events, Relevant and contractor-responsible.

"An Introduction to EVM"

Earned value management ('EVM') goes beyond simply comparing budgeted costs with actual costs. It measures the value of work accomplished in a given period and compares it with the planned value of work scheduled for that period and with the actual cost of work accomplished.

It facilitates the integration of project scope, time and resource objectives and the establishment of a baseline plan for performance measurement.

For example; a section of a project calls for 1,000 metres of pipework to be done in 4 weeks at a cost of £400,000. After 3 weeks of work, only £150,000 has been spent. An analysis of planned versus actual costs suggests that this section of the project is under running its estimated costs.

Thus, EVM is a means of cost and schedule performance analysis. By knowing what the planned cost is at any time and comparing that value to the planned cost of completed work and to the actual cost incurred, we can measure the program's cost and schedule status. Without knowing the planned cost of completed work and work in progress (that is, earned value), true program status cannot be determined. Earned value provides the missing information necessary for understanding the health of a project; it provides an objective view of the project's status. Moreover, because EVM provides data in consistent units, usually manhours, the progress of vastly different work efforts can be combined. For example, earned value can be used to combine feet of cabling, square feet of sheet metal, or tons of rebar with effort for systems design and development. That is, earned value can be employed as long as a programme is broken down into well-defined tasks.



"An Introduction to EVM"(Cont'd)

The establishment of a performance measurement baseline (PMB) is essential to conducting successful EVM and consists of:

- defined scope and assumptions;
- activities scheduled in logical sequence;
- resources (labour, plant and key materials).

We need to know:

- what the plan is;
- what the project has achieved;
- what resources have been used to date.

EVM helps us manage by:

- providing data to enable objective measurement of project status;
- predicting when the project will be complete;
- supporting the effective management of resources;
- providing a means of managing and controlling change.

Informed and effective decision making is enabled by knowing:

- what has been achieved of the plan;
- what resources have been used to achieve the planned work;
- if the work achieved is costing more or less than was planned;
- if the project is ahead of or behind the planned schedule.

Good planning leads to good project execution and good management information.

Poor planning can lead to poor execution and poor EVM information. The plan must be maintained in accordance with authorised project changes. EVM will accurately show deviations from the plan, but it may not be immediately evident that a flawed plan is being tracked.

Roger Gibson
October 2016

Contact Us

Details of our services can be found on our website, <http://www.gibsonconsulting.co.uk/>, but if you would like to discuss how we can help you, Please don't hesitate to contact Roger Gibson on 024 7624 3607 or 07970 119 465 or send an email to roger.gibson@gibsonconsulting.co.uk