A Little of Time at Large
Proof of a reasonable time to complete in the absence of a completion date

by

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INTRODUCTION

This paper is about proving a reasonable time to complete in the absence of a completion date. Rarely does one come across a contractor’s claim without finding in it somewhere the allegation that ‘time is at large’ and the employer is not entitled to any liquidated damages.

Generally, provided that there is a contract completion date, a power under the contract to extend time, and the contract administrator (CA) properly exercises that power, a new date for completion can be enforced. This is usually calculated by adding to the initial date for completion the additional time required for the effect of the employer’s time risk event. However, if, for reasons within the employer’s control, the contractor is prevented from completing by the date for completion and there is no right to extend time for performance (or it is not properly extended) the employer can no longer insist upon the completion date. It is then left without a firm date from which liquidated damages might be calculated. Time is then said to be ‘at large’ as a result of the effect of what is known as the ‘prevention principle’, which has been described as being based upon:

(i) a rule of law: ‘some broad notion of justice as that a man should not be allowed to recover damages for what he himself has caused’,

(ii) an implied term: ‘as a matter of fairness or policy’.

The expression ‘time at large’ is thus usually used to indicate that the claimant believes that, for one reason or another, there is no enforceable date for completion of the works. Hence, because there is then no date from which they can be calculated, the employer’s right to liquidated damages is defeated. If that argument succeeds, the contractor’s obligation is to complete within a reasonable time. If it does not then the employer may recover its losses as general damages at common law.

There is some doubt as to whether, when the employer has lost its right to liquidated damages, the fixed sum specified remains in limbo, as it were, to act as a cap on recoverable losses as is sometimes thought or, whether it is void ab initio and hence of no effect at all. The logical result of the alternative is that the employer is then entitled to recover provable losses in excess of what, at the time the contract was entered into, were agreed to be a limit on the employer’s right to recovery. However, we are not concerned here
with the financial consequences of time at large. This paper is concerned only with the circumstances in which the employer might find itself without an enforceable completion date and the practical problem of then determining how a reasonable time to complete might fairly be calculated.

Whether time has become at large is a matter of law dependant upon the terms of the contract and the facts that are alleged to defeat the applicability of the liquidated damages provisions. What is a reasonable time to complete once time has become at large is a matter of fact depending upon the circumstances as to how time has become at large, the date on which time became at large, and the materials available from which such a calculation could properly be made. It follows that the law and facts are inextricably bound and it is not possible to deal with one aspect satisfactorily without also dealing with the other.

So, before passing on to consider how a reasonable time to complete might be calculated, it is helpful to consider how the parties might have come to be without an enforceable completion date in the first place. In principle, there are at least two possibilities as to how this might have happened.

First, there may be a contract completion date together with a number of employer’s time risk events for which the contract makes provision for the CA to extend time but which have not been operated because the power to extend time:

(i) has been wrongfully exercised; or
(ii) has not been exercised at all; or
(iii) has become inoperable; or
(iv) does not apply to the occurrence in question; or

it cannot be applied because the parties have failed to specify a completion date to which the power to extend time can be applied. Whilst unusual, this latter possibility may occur if no date for completion is written into the contract or, under the engineering forms, there is no period for completion stipulated by either party.

On the other hand, of course, there may not be a contract completion date simply because there was no contract in the first place.

**A POWER TO EXTEND TIME WRONGFULLY EXERCISED**

Perhaps the most common allegation in support of a claim that time has become at large is that the CA has either failed to grant an extension of time at all, or that the extension of time that has been awarded is so unreasonable as to be not within the CA’s power to make it. In this regard, in *Rapid Building Group v Ealing Family Housing* 8, for example, the Court of Appeal accepted that jurisdiction as to the validity of a CA’s certificate could be dependant upon whether it could be shown to be ‘legally invalid because given, for example, in bad faith or in excess of his powers’. 9

The principle on which such a claim is founded is that in leaving it to the CA (who under some forms of contract is actually the ‘employer’s agent’ 10 or the ‘employer’s representative’ 11) to determine the contractor’s right to more time (and hence the employer’s right to any liquidated damages), the CA is either

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9 *Northern Regional Health Authority v Derek Crouch Construction Co Ltd* [1984] QB 644; 26 BLR 1, CA; Browne-Wilkinson LJ at page 29.
expressly or impliedly required that the extension of time awarded to the contractor is fair and reasonable in all the circumstances.

In most modern standard forms of contract a perverse award by the CA will not have the effect of defeating the employer’s right to liquidated damages and set time at large simply because, by the terms of most of the standard forms, the parties agree to refer their disputes to a tribunal that has the power to ‘open up, review and revise’ any certificate so as to determine afresh the parties’ rights under the contract. The tribunal may then correct a perverse decision by the CA awarding a fair and reasonable extension of time to the contractor and liquidated damages to the employer for any delay in excess of that relieved by the extension of time.

On the other hand that may not always be so, particularly with bespoke forms of contract that do not contain the same power to open up, review and revise. In Peak v McKinney for example, it appears that the dispute was first decided by an Official Referee. On appeal, the Court of Appeal unanimously held that the Judge’s assessment of the cause of the delay to piling repairs was so perverse that it did not amount to a decision on the facts, and they overturned it. In that case, the Court of Appeal held that there had been delays caused by the employer for which the contract provided no power to extend time. However, Salmon LJ clearly thought, obiter, that even if the contract had contained a power to extend time for the cause of delay, the failure to award an appropriate extension of time under the circumstances would also have left the employer without an enforceable completion date, which would also have defeated the liquidated damages provisions.

ABSENCE OF POWER UNDER THE CONTRACT TO EXTEND TIME

In a contract that permits time to be extended, the prevention principle may thwart the process in two ways:

(i) where there is no clause in the contract that permits the employer to extend the time for completion for that particular occurrence; and

(ii) where, although there is a power to extend time for that occurrence, the power cannot be exercised in the circumstances.

Where there is no clause in the contract

The leading case on this point is Peak v McKinney. In this case, a piling subcontractor carried out defective work which had to be corrected but, before the repairs were carried out, the employer wanted to have the various committees of the Council and its own consultants’ advice, which took many months to obtain. Because there was no clause in the contract between the employer and contractor that permitted the employer to extend time for delayed approval of the subcontractor’s repair process, the Court of Appeal held that the liquidated damages clause could not be applied. Salmon LJ put it thus:

“The liquidated damages and extension of time clauses in printed forms of contract must be construed strictly contra proferentem. If the employer wishes to recover liquidated damages for failure by the contractors to complete on time in spite of the fact that some of the delay is due to the employer’s own fault or breach of contract, then the extension
of time clause should provide, expressly or by necessary inference, for an extension on account of such a fault or breach on the part of the employer. 16

This principle was also applied in Rapid Building Group v Ealing Family Housing17. In that case, the employer failed to grant exclusive possession of the site for a period of three weeks (during which a couple resided with its dog in an Austin Cambridge in a ‘significant portion of the site’). As there was no power to award an extension of time under the contract for a failure to grant possession, there was no completion date from which liquidated damages could run and time was therefore set at large.

The changes made to most of the standard forms of contract since JCT ’6318 provide that the employer may now extend the contractor’s time for performance for delay caused by events more widely described. Typically, these provide for an extension of time to be granted under such anodyne expressions as:

(i)  ‘any act, neglect or default of the employer, the project manager or any other person for whom the employer is responsible (not arising because of any default or neglect by the contractor or by any employee, agent or subcontractor of his)’;19

(ii)  ‘a breach of contract on the part of the employer’;20

(iii)  ‘any default, whether by act or omission, of the employer or any persons for whom the employer is responsible in regard to the project’;21

(iv)  ‘any delay impediment prevention or default by the employer’;22

(v)  ‘any act, instruction, default or omission of the employer, or of the architect’;23

(vi)  ‘any delay, impediment or prevention caused by or attributable to the employer, the employer’s personnel or the employer’s other contractors on the site’;24

(vii)  ‘any breach of contract by the employer that is not one of the other compensation events referred to’;25

(viii)  ‘an act of prevention, a breach of contract or other default by the employer, or any person for whom the employer is responsible’;26

(ix)  ‘a disturbance to the progress of the work for which the employer, the engineer or a specialist contractor is responsible’.27

As a result, it is now less likely (except in the case of a bespoke form that has no such provisions) that circumstances within the control of the employer could occur that were simply not contemplated as being excusable under the contract.

16  See note 13, at page 121.
17  See note 8.
22  See note 12, clause 44(1)(e).
26  Hong Kong Standard Form of Building Contract, 2005.
Where the clause is inapplicable in the circumstances

The second common theme is that, whilst time to complete may legitimately be extended, the circumstances at the operative time are such that they are outside the administrative process contemplated. This may be because, for example, the contract provides that an extension of time may only be granted for the effect of variations instructed before the stipulated completion date with the effect that, once the completion date has passed, time cannot be extended for the effect of variations instructed.28

However, as a result of a recent arbitration in Hong Kong29 it would appear that this is unlikely to be in point in relation to standard form contracts which follow the typical Joint Contracts Tribunal (JCT) phraseology. The case was in relation to the 1986 Building Contract for Use in Hong Kong (which closely follows the JCT 1963 edition). In this case, Neil Kaplan CBE QC determined that a power to extend time if, as a result of events at the employer’s risk, completion was likely to be or has been delayed beyond the completion date was broad enough to entitle the architect to extend time for the effect of variation instructions issued after the completion date had passed.

Alternatively, the right to extend the time for performance might be conditional upon an administrative act (such as notice of delay being given by the contractor) in the absence of which the power may be held not to arise. Typically, this can be construed to affect interim extensions of time under a number of standard forms of contract30 but not the power to reconsider entitlement to an extension of time after completion has been achieved, which commonly is not dependant upon notice.

A scenario such as this was considered in the Australian case of Gaymark v Walter Construction31. The standard form of Australian contract known as National Public Works Contract 3 (1981)32 had been edited to provide, amongst other things, that notice of delay was to be given not later than 14 days after the cause of delay first arose, coupled with a condition that entitlement to an extension of time was dependant upon the contractor complying strictly with the notice provisions. The Supreme Court of the Northern Territory refused to upset an arbitrator’s award which found that in the absence of compliance by the contractor, the CA was not permitted to extend the time for completion and, because at least some of the delay to completion was caused by the employer, the completion date and the right to liquidated damages were then lost.

The correctness of this case has been doubted.33 It is apparent that on its facts it was not the employer’s breach (of which the employer wrongly attempted to take advantage) so much as the contractor’s breach (in not giving notice) which, according to the arbitrator’s decision, left the contractor in a better position than it would have been had it given notice.34

In general terms the effect of Gaymark v Walter Construction is that the prevention principle overrides the requirement for notice as a condition precedent. This is contrary to the views expressed by the Supreme

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28 See note 4.
29 See (2005) 21 Const LJ 321 for the award on the preliminary issue, which usefully discusses the results of other arbitrations on similar facts.
30 See for example Standard Form of Building Contract, Private with Quantities, 1998 edition, The Joint Contracts Tribunal Ltd (JCT ’98), clause 25.3.1
32 Known as “NPWC3”.
34 The evil which Vinelott J sought to avoid by rejecting an implied term in JCT ’63 to the same effect in London Borough of Merton v Stanley Hugh Leach Ltd 32 BLR 51, (1986) 2 ConstLJ 189, ChD.
Court of Victoria in SMK Cabinets v Hili. The Supreme Court of New South Wales has also declined to accept that a failure by the contractor to give notice in a contract that rendered notice a condition precedent to entitlement would automatically deprive the employer of liquidated damages. In the case of Turner Corporation v Austotel, Cole J rejected this contention saying:

“If the Builder, having a right to claim an extension of time fails to do so, it cannot claim that the act of prevention which would have entitled it to an extension of time for Practical Completion resulted in its inability to complete by that time. A party to a contract cannot rely upon preventing conduct of the party where it failed to exercise a contractual right which would have negated the effect of that preventing conduct.”

Turner v Austotel was also referred to by the New South Wales Court of Appeal in the case of Peninsula Balmain v Abigroup, in which it was observed obiter that:

“... in the absence of the supervising officer’s power to extend time even if a claim had not been made within time, the contractor would be precluded from the benefit of an extension of time and liable for liquidated damages, even if delay had been caused by variations required by Peninsula [the employer] and thus within the so called ‘prevention principle’.”

There should be nothing in the employer’s control that could permit the employer to require the contractor to take more time to complete, whilst at the same time taking liquidated damages for the contractor’s failure to complete on time. However, there is something intuitively disturbing about the concept of the contractor’s failure to comply with a condition precedent to an extension of time interfering with the employer’s entitlement to liquidated damages so as to render the contractor better off by not complying with the contract than it would have been if it had.

This is not a subject that has yet come before the English or Hong Kong courts. It can though be expected to occur sooner or later under a number of UK and international standard forms of contract. For example:

(i) PPC2000 states that the employer may only grant an extension of time if there is a breach of contract by the employer or any consultant ‘of which the Constructor has given Early Warning’;

(ii) NEC3 states: ‘if the contractor does not notify a compensation event within eight weeks of becoming aware of an event, he is not entitled to a change in the prices, the completion date or a key date unless the project manager should have notified the event to the contractor but did not’;

(iii) and the 1999 editions of the FIDIC forms also provide, perhaps less enigmatically, that: ‘if the contractor fails to give notice of a claim within 28 days, the time for completion shall not be extended, the contractor shall not be entitled to additional payment, and the employer shall be discharged from all liability in connection with the claim’.

See note 4, Brooking J, at page 395.


See note 25, Clause 61.3.

See note 24, clause 20.1
Absence of a contract requiring performance by a certain date

This may occur when there is a contract but there has never been a contract completion date agreed or, if whilst the parties perform as though there were a contract in existence, there is nothing by which a contract can be construed. In neither case is it possible to find a date by which the contractor is bound to perform. For example, in British Steel Corporation v Cleveland Bridge and Engineering, no formal contract was ever signed. The steel was delivered but the contractor refused to pay, saying that late and out of sequence delivery had caused them loss and that such late delivery was a breach of contract. The subcontractor claimed that there could be no contractual delivery date as there was no contract. Goff J (as he then was) observed:

“Both parties confidently expected a formal contract to eventuate. In these circumstances, to expedite performance under that anticipated contract, one requested the other to commence the contract work, and the other complied with that request. If thereafter, as anticipated, a contract was entered into, the work done as requested will be treated as having been performed under that contract; if, contrary to their expectation, no contract was entered into, then the performance of the work is not referable to any contract the terms of which can be ascertained…” 42

Take similar circumstances where, notwithstanding that nothing had been agreed as a contract period, in the course of negotiations the contractor had indicated what it thought was an adequate completion period. Then, in the absence of anything that would indicate the contractor to be at fault, it would appear that that may be construed as a reasonable starting point from which to construe a duration for the scope of the contract works (but not a baseline for the purposes of extending time under the contract). For example, in J&J Fee v Express Lift, HH Judge Bowsher QC gave a provisional view on the documents before him (without deciding) that it would be impossible for the contractor to contend that a reasonable time for completion of the works would be any later than the date they had consistently put forward in contract negotiations.

IDENTIFYING A REASONABLE TIME TO COMPLETE

There is thus some judicial support for the view that provided that the contract contained a completion date, or a period for completion of the contract works could be construed from the conduct of the parties, then that is the position from which to commence. For example, in J & J Fee v Express Lift, there had been correspondence between the parties on the date of commencement and completion. The last correspondence from the contractor stated that it could see little possibility of improvement on the dates previously given, but suggested that the situation be monitored and if it became possible to review the situation then it would try to improve upon it. In this case the court thought that the completion date for the contract works would not be any later than the date they had consistently put forward in contract negotiations.

In Astea v Time Group, HH Judge Seymour QC also seemed to think that the contractor’s ‘contract period’ was the appropriate starting point, in saying that consideration of a reasonable time for performance: ‘…is likely to include taking into account any estimate given by the performing party of how

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41 British Steel Corporation v Cleveland Bridge and Engineering Company Ltd [1984] 1 All ER 504, QBD.
42 See note 41, at page 511b.
43 J & J Fee Ltd v The Express Lift Company Ltd (1993) 34 Con LR 147, QBD (OR).
44 See note 43.
long it would take him to perform …". In other words, having identified a date by which the contract works were to be completed, the reasonable time to complete can be calculated from that baseline.

There are then two positions to consider: whether the time risk structure under the contract subsists notwithstanding the absence of a completion date or, whether the time risk structure falls with the absence of a completion date.

A contract with an enforceable risk structure

In these circumstances the contractor may be entitled to the contract period together with any additional time caused by the employer’s time risk events stipulated under the contract (which, depending upon the contract may include everything that is beyond the contractor’s control). As Hudson suggests:

“It also seems possible that, in deciding on a reasonable time for completion in such a case, there should be consideration of the circumstances stipulated in any contractual extension of time clause as justifying an extension of time, either as indicating circumstances which should be taken into account, or possibly as excluding any circumstances not mentioned in the clause.”

In Peak v McKinney, for example, the view was expressed that, “… the problem can be cured if allowance can be made for that part of the delay caused by the actions of the employer …”

In Rapid Building Group v Ealing Family Housing, it was also thought that the risk structure of JCT ’63 might survive the CA purporting to grant an extension of time for the failure to give possession on time for which, under JCT ’63, he had no power. In this case LLoyd LJ remarked:

“Like Phillimore LJ in Peak v McKinney, I was somewhat startled to be told in the course of the argument that if any part of the delay was caused by the employer, no matter how slight, then the liquidated damages clause in the contract … becomes inoperative.

I can well understand how that must necessarily be so in a case in which the delay is indivisible and there is a dispute as to the extent of the employer’s responsibility for that delay. But where there are, as it were, two separate and distinct periods of delay with two separate causes, and where the dispute relates only to one of those two causes, then it would seem to me just and convenient that the employer should be able to claim liquidated damages in relation to the other period.”

A similar view seems to have been taken in SMK Cabinets v Hill. Whilst acknowledging that the prevention principle was grounded upon considerations of fairness and reasonableness. In this case, Brooking J concluded that the employer’s act of prevention only served to prevent the employer from taking liquidated damages that accrued after the employer’s breach. The absence of a power to extend time for a variation given after the completion date had passed did not then upset the parties’ contractual rights and obligations accruing prior to the date upon which the instruction was given.

45 Astea (UK) Ltd v Time Group Ltd [2003] EWHC 725, TCC; at para 144.
46 See note 6 Hudson, at para 9.031.
47 See note 12; Phillimore LJ, at page 127.
48 See note 18.
49 See note 8, at page 19.
50 See note 4.
Where this approach is appropriate, the calculation of a reasonable time to complete is exactly the same as if the contract period had been properly extended. The burden of proving a reasonable time then falls on the contractor to show what time (additional to that which it initially contracted for) it reasonably needs to cover the delaying effect of both the employer’s breach and those employer’s risks under the contract.

In these circumstances, the only difference between a properly extended time for completion under the contract and a reasonable time to complete outside the contract, is that after the former the employer is entitled to liquidated damages for delay. After the latter, on the other hand, it is no longer entitled to liquidated damages but must prove its actual losses and, in the **SMK Cabinets v Hili** case\(^{51}\), only the actual losses flowing from the breach.

### A contract with a risk structure that lapses

The argument in favour of the risk structure lapsing is that as it is the employer’s breach that has set time at large, the employer should not be entitled to maintain its right under the contract for the contractor to prove its entitlement to any more time than it needs. In those circumstances, so the argument runs, the burden of proof should shift to the employer to show that the time actually taken is unreasonable in all the circumstances that then exist. It follows that the contractor should be entitled to the time it has actually taken to complete, unless the employer can show otherwise.

Where there is an agreed duration for the contract scope of works but the effect of an act of prevention is assumed to dispense with the apportionment of time risk under the contract, there are thus two possibilities to consider. They are (a) whether the contractor should be entitled to the time the work should have taken, together with the additional time necessary for those matters beyond the contractor’s control, or (b) all the time the work actually took, less only the time taken up by those matters within the contractor’s control.

In other words, the issue is whether the contractor should receive the benefit of either the contract period together with whatever it can prove should be added on for those events that can be shown to be outside its control; or it should be entitled to all the time it actually takes, unless the employer can prove something should be deducted for the effect of those events within the contractor’s control.

In the first case the contractor may have the benefit of additional time for such events as adverse weather, strikes, lock-outs, civil commotion, *force majeure*, and so on, which are not *ipso facto* employer’s breaches and which are beyond the contractor’s control. However, delay caused by the contractor’s subcontractors and suppliers for example, may be construed to be beyond or within the contractor’s control depending upon the factual circumstances. Although most factors beyond the contractor’s control may well serve to justify an extended construction period, factors that the parties expressly or impliedly had in mind at the time of the contract (for example, the economic climate and general availability of labour, plant and materials) can be expected to have a bearing upon the time actually taken.

In the second case, the contractor will be entitled to additional time for everything unless it can be shown to arise out of a breach on the part of the contractor. The effect of this scenario is that the contractor is entitled to all the time the works actually take to complete, less the time for the acts or omissions that amount to a breach on the part of the contractor.

Amongst other things, such considerations might reasonably encompass, for example, whether or not the contractor had in all the circumstances:

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\(^{51}\) See note 4.
carried out the work with adequate materials goods and workmanship which did not prove defective;

(ii) arranged deliveries so that materials, goods, plant and other resources were available when needed;

(iii) expressly or impliedly warranted its ability to maintain progress in a particular situation or at a particular speed;

(iv) had adequate site organisation, labour force, plant and materials; and

(v) remained responsible for acts or omissions within the control of the contractor’s subcontractors and suppliers, notwithstanding that they may not have been within the direct control of the contractor.

Whilst the Court of Appeal did not express a view on what would be a reasonable time to complete, and no view was expressed upon whether the risk structure should remain, in Peak v McKinney Salmon LJ appeared to take the view that the principal issue was how much delay had been caused by the employer’s breach. In other words, how much the contractor could demonstrate should be added on to its contract period. On the other hand, whilst accepting that was a consideration, Edmund Davies LJ seemed to think that the time taken up by those matters within the contractor’s control was a relevant consideration, saying:

“But, just as the plaintiffs must themselves be absolved from contributing to any delay, so also must the defendants, save in respect of that for which inevitably flowed from their original default.”

Relieving the contractor from the effect of everything other than that which is within the contractor’s control is also the route that the courts appear to have taken in a few cases of time at large in fields other than construction. For example, take the shipping case of Pantland Hick v Raymond & Reid. The consignee of a cargo was in breach of a contractual obligation to discharge the relevant vessel within a reasonable time. There was a single cause of delay, namely a strike of dockworkers, over which the consignee had no control and the effect of which, while it lasted, was totally to prevent performance of the contract. The appellant’s case was that the appropriate period was the additional time that would have been required for the effect of the strike, over and above the contract period. But the respondents argued that the question was not what time would have been reasonable under ordinary circumstances, but what time was reasonable under the circumstances as they then were, absent any fault on the part of the respondents. The issues were rationalised by Lord Herschell as follows:

“My Lords, there appears to me to be no direct authority upon the point, ... I would observe, in the first place, that there is of course no such thing as a reasonable time in the abstract. It must always depend upon circumstances. Upon ‘the ordinary circumstances’ say the learned counsel for the appellant. But what may without impropriety be termed the ordinary circumstances differ in particular ports at different times of the year. ... It appears to me that the appellant’s contention would involve constant difficulty and dispute, and that the only sound principle is that the ‘reasonable time’ should depend on the circumstances which actually exist. If the cargo has been taken with all reasonable despatch under those circumstances I think the obligation of

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52 See note 13, at page 120.
53 See note 13, Edmund Davies LJ, at page 124.
54 Pantland Hick v Raymond & Reid [1893] AC 22, HL.
the consignee has been fulfilled. When I say the circumstances which actually exist, I, of course, imply that those circumstances, in so far as they involve delay, have not been caused or contributed to by the consignee.”

In the same case, Lord Watson took the view that, by analogy, the contractor would only be disentitled to more time with regard to events that were both beyond the contractor’s control and were neither negligent nor unreasonable.

In Astea v Time Group, a case which involved the development of computer software, HH Judge Seymour explained the decision in Pantland, saying:

“What it seems to me the application of the test formulated by the House of Lords in Pantland Hick v Raymond & Reid involves in a case such as the present is a broad consideration, with the benefit of hindsight, and viewed from the time as at which one party contends that a reasonable time for performance has been exceeded, of what would, in all the circumstances which are by then known to have happened, have been a reasonable time for performance.”

On the broad ‘considerations of fairness and reasonableness’ as being the foundation of the prevention principle (enunciated by Brooking J in SMK Cabinets v Hill), it thus seems wrong to deprive the contractor of a right to relief in time as a result of the employer’s breach, which otherwise the contractor would have enjoyed under the risk provisions of the contract. The better view, it seems, is that a reasonable time to complete should not so much be based upon ‘circumstances beyond the contractor’s control’ but along the line taken by Lord Herschell in Pantland Hick and Judge Seymour in Astea v Time Group. That is, by subtracting from the time actually taken to execute circumstances expressly or impliedly within the contractor’s control that have caused or contributed to the delay to completion. Accordingly, if the risk structure falls, then it would appear to be appropriate that the onus of proving a reasonable period to complete should lie with the employer.

The absence of a contract

If there is no contract, there can obviously be no risk structure under the contract. A reasonable time to complete where there is no contract can only be determined by assessing what would have been the completion date but for those events for which the contractor is not entitled at common law to be given more time. Whilst provided the data is available on which to make the calculation, it is easy enough, in many cases in which there is no contract, it is highly likely that there will be no planned programme and few if any as-built records from which to prepare an as-built programme.

Whilst there may not be many circumstances in which a reasonable time to complete in tort is applicable, it has been found to be of practical importance in the case of an occupier of business premises interfered with by repairs carried out by others taking longer than was reasonable to complete.

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55 See note 54, Lord Herschell, at page 29.
56 See note 54, at pages 32 and 33.
57 See note 45, at para 144.
58 See note 4.
59 See note 54.
60 See note 45.
PROVING THE EFFECT UPON THE CRITICAL PATH

Where an implied ‘contract period’ can be established to which the effect of the employer’s delays can be added, in some contracts it would be entirely possible to take the contractor’s planned programme for the contract scope as a baseline. Added to it would then be the putative effect of the employer’s time risk events under the contract together with that of any breach. In practical execution this would be an as-planned impacted analysis. It is the type of analysis adopted to prove the contractor’s entitlement to an extension of time in John Barker Construction v London Portman Hotel where, although there was a contract programme, there were no as-built records.61 The effect of this is to entitle the contractor to what the contractor claims to be the gross effect of the employer’s risk events on the contractor’s programme for the works, regardless of whether it actually followed that programme and regardless of any culpable delay by the contractor.62

So far as concerns time at large calculations, one of the perceived difficulties with this method of calculation is that the contractor’s programme (even if well thought out, fully logic-linked and resource-calculated, without any contractor’s time contingencies (which most are not)) at its highest only represents the contractor’s intent. It is a manifestation of an intent which in most forms of contract is not binding upon the contractor. There are usually many other mixtures of resources, durations and logic available which would have achieved the same end-date but which might not illustrate the same predicted effect of the employer’s risk events or breaches.

Provided the materials are available with which to do it, a reasonable time to complete can also properly be calculated by the time impact method. That is, on the basis of the affect, from time to time, of each time risk event or act of prevention as it impacted the contractor’s contemporaneous planned critical path to completion, absent any identifiable time contingency. This is the method acknowledged by the Society of Construction Law’s Delay and Disruption Protocol63 as being the most thorough and is that implied to be an appropriate method of calculating an extension of time by HH Judge LLoyd in Balfour Beatty Construction v London Borough of Lambeth64 and by HH Judge Seymour in Royal Brompton Hospital v Hammond65.

By taking into consideration the contractor’s culpable delay (if any) and identifying the net effect of the employer’s acts or omissions on the contractors contemporaneous programme, the contractor does not benefit from additional time other than that caused by the employer’s time risk event or breach. So, say the contractor is in culpable delay as a result of not being able to obtain sufficient labour, there are no other events and the only breach is a variation. The contractor would then only be entitled to the putative effect of the variation on the programme it was then following in addition to the contract period and no more, regardless of how long the works actually took to complete.

In both these scenarios the burden of proof as to entitlement rests with the contractor. However, it is thought that where the employer has either not stipulated a date for completion, or by its own acts prevented the due date from being achieved, it should not be for the contractor to prove what period of time to which it is entitled: it should be for the employer to demonstrate that the time actually taken by the contractor is excessive in all the circumstances.

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61 John Barker Construction Ltd v London Portman Hotel Ltd (1996) 83 BLR 31, TCC.
62 A contingency that rightly renders this method unsuitable where as-built records are available. See for example, Great Eastern Hotel Company Ltd v John Laing Construction Ltd [2005] EWHC 181, TCC, at para 184.
65 Royal Brompton Hospital NHS Trust v Frederick A Hammond (No 1) [2000] EWHC Technology 39; at [32].
In the absence of a contract period from which to start, a reasonable time to complete can only properly be calculated by the As-Built But-For method (see below), on the basis of the actual effect of each breach by the contractor as it impacted the contractor’s contemporaneous critical path to completion. This is one of the methods recognised by the SCL Delay and Disruption Protocol as being an appropriate method of calculating an extension of time in the absence of a competent planned programme. Provided the materials are available from which to calculate it, this method takes as a base line the programme of the work as it was actually carried out, and subtracts from the critical path those actual periods of time for which the contractor is liable. In so far as, in the absence of those time periods, the critical path shortens, then the resultant completion date can be said to be the completion date that reasonably could have been achieved in all the circumstances then existing, save for the contractor’s culpable delay.

One of the essential characteristics of a tort is that it arises out of man’s actual conduct rather than out of an agreement for future conduct from which a planned intent can be deduced. This method therefore also tends to be the most likely method available for calculating an appropriate time to complete where the claim is based upon a tortious relationship, for example, in nuisance.

**A WORKED EXAMPLE**

This example is of the calculation of a reasonable time in an action in the tort of nuisance. However, the method used to calculate the period that would have been necessary but for the unreasonable delay on the part of the defendant in this case is the same method as would be adopted in a contractual dispute in which there was no contract period from which to start.

On 27 May 1997, the party responsible for the repair of a building became aware of spalling concrete cladding panels. A protective fan scaffold was erected in October 1997 and remained in place until 18 April 1999, when it was dismantled and replaced to enable the necessary works to be carried out. The claimant’s case was that the erection and maintenance of the scaffolding exceeded the period which was necessary for the purposes of carrying out the works required and that, as a result of the nuisance caused, it lost profits between October 1997 and April 1999.

The dispute related to the actual length of time the scaffolding remained in place outside the claimant’s place of business whilst investigation and repairs were carried out.

The necessity for the repairs was unplanned and there could never have been a planned programme for the incident or its investigation prior to the letting of the repair contract. There were, however, documents available giving an historical record of the sequence of occurrences from the date the claimant was notified of the spalling concrete, to the date the repair contract was awarded. An appropriate method of analysis would thus be one that used the actual sequence of works as the baseline.

The measurement of unnecessary delay was made by reference to what would have been the completion date but-for any delaying event (deduced from the re-created history of occurrences in the form of a dynamic programme). This form of analysis is called an As-Built But-For (‘ABBF’) analysis or a collapsed as-built. It requires the logic by which the works were procured to be deduced from the sequence that the activities actually followed.

The method of creating the factual baseline was as follows:

1. Build the programme from the documents, creating milestone activities which indicate start or completion of an activity;
2. Identify the actual time periods for each activity;
(iii) link the actual time periods represented by the activities with their perceived logical predecessors and successors;

(iv) identify the activities that represent periods of time that were unnecessary to the process and code the difference between a reasonable duration and the actual duration as delaying events.

The ABBF method is as follows:

(i) for the purposes of collapsing, take the baseline as-built programme and copy it to a new programme file for the ABBF analysis;

(ii) calculate the critical path to completion (this is done automatically by the software when the command to re-sequence is given);

(iii) for the identified delaying events on the programme attribute the duration of zero days in place of their actual duration;

(iv) recalculate the critical path and identify the date the completion date would have occurred but for the delaying events.

When the duration of the delaying event is reduced to zero days, if any delaying event was found to be at any point in its duration on or near the critical path, the completion date would be brought forward. The difference between (i) the completion date with the actual duration of the delaying event and (ii) that as a result of the collapse of the critical path with the duration of the event set to zero days is the delay to the completion date actually caused by the delaying events.

A number of the delaying events were found to have occurred over the same time frame, in whole or in part, and were thus parallel causes of the same delay to progress. The ABBF analysis demonstrated that the earliest date on which repair works could have been started but for all the delaying events when taken together was 23 January 1998. However, the repair works were not actually commenced until 18 April 1999.

Accordingly, the unnecessary delay in commencing the repair works amounts to 450 calendar days. For this period, liability was, of course, to be established. For example, the repairer may not ultimately be held to be responsible for the effect of delay to progress caused by the owner or the inaction of the planning authority and to that extent, the period against which the claimant’s losses may be calculated will be something less than the total avoidable delay caused.

Although this is an example of how the effect of Lord Herschell’s ratio\(^{66}\) might reasonably be put into practice in determining a reasonable time to complete in relation to a claim in tort, provided the materials are available from which the factual matrix can be inferred, it is equally applicable to construction disputes in which there is no contract or, if a contract, no programme which might usefully serve as a baseline.

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\(^{66}\) See Note 54.