Extensions of time: The Wrong Path

A review of the role of critical path analysis and first in time concurrency in extensions of time

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Contents

Executive summary 4
Important notes 5
Introduction 6

PART 1: HELICOPTER VIEW 7
1. The perils of contracting and the damage done by arbitrary and unreasonable liquidated damages 8
2. The imbalance of liquidated damages in the 21st century 9
3. A fit for purpose extension of time clause 11
4. Computerisation and the rapid expansion of the disputes industries 14
5. A look at critical path analysis 16

PART 2: HOW HAVE WE GOT HERE? A BRIEF HISTORY OF EXTENSION OF TIME 23
6. Summary history of the 'own wrong' rule 24
7. The 19th century construction industry and the move to standard forms 25
8. The prevention principle and construction delays 26
9. Measuring extension of time in the 20th Century in the UK 34
10. Early references in the UK to criticality 35
11. Development of the law and industry guidance (in the UK) 36
12. Tabulated summary of cases regarding critical path analysis 46

PART 3: A FURTHER LOOK AT CRITICAL PATH ANALYSIS: PRACTICAL AND CONCEPTUAL PROBLEMS 49
13. The evidential burden of critical path analysis 50
14. Practical problems with critical path analysis 52
15. Does critical path analysis provide any benefits? 52

PART 4: A BETTER INTRPRETATION OF THE CONTRACTS AND THE LAW 57
16. The laws on damages and the penalty rule in English law 58
17. Application of the penalty rule and own wrong rule 62
18. An Interpretation of the standard forms 68
19. Other legal jurisdictions 75

PART 5:THE CONCURRENT DELAY ILLUSION 77
20. The SCL consultation document 2001 78
21. The SCL Protocol 1st edition 2002 80
22. The SCL Protocol 2nd edition 2017 82
23. Time ownership on a construction project 86
24. The practicality of the first in time approach 88
25. Summary of English court decisions 90
26. Some helpful worked 'concurrency' examples 93

PART 6: CONCLUSIONS AND THE WAY FORWARD 97

27. **Overall Conclusions** (See also Postscript on page 196) 98
28. Proposed mechanism 104

3 points of conscience 106

PART 7:
APPENDIX A (CONTRACTING OUT OF THE PREVENTION PRINCIPLE 107
29. Provenance of the prevention and own wrong principles 108
30. Criticisms of and comments on the principles 109
31. Contracting out (Prior to North Midland) 113
32. *North Midland Building Ltd v Cyden Homes Ltd* 120
33. Contracting out (After North Midland) 141
34. Conclusions 143

PART 8: APPENDICES B-F 148
APPENDIX B An EOT claim summary from 1991 149

APPENDIX C Practical problems with critical path analysis 150

APPENDIX D Clause 25 of JCT 80 156

APPENDIX E UK law & industry guidance on concurrency 157
Keating 5th edition 157
The standard Pre-Malmaison approach 158
Malmaison 159
Royal Brompton 161
Motherwell Bridge 164
Society of Construction Law concurrent delay paper 165
London Borough of Lambeth 166
Hammond 2002 166
JCT 05 Building Contract 166
Keating 8th edition 167
Steria v Sigma 168
De Beers v Atos Origin 168
City Inn 169
Adyard 170
Walter Lilly 177
Saga Cruises 177
North Midland 180
Society of Construction Law Lord Justice Coulson paper 180
Thomas Barnes 181

APPENDIX F The Society of Construction Law Protocol documents 183

PART 9: BIBLIOGRAPHY AND TABLE OF CASES AND POSTSCRIPT 188
BIBLIOGRAPHY 189
TABLE OF CASES 192
POSTCRIPT (ADDED 26th NOVEMBER 2022) 196

EXECUTIVE SUMMARY AND BACKGROUND

This paper reviews the genesis and history of the extension of time clause and analyses its fundamental purpose. The paper also researches the origins and development (in terms of UK authorities) of the critical path analysis approach, and the development of case law on concurrent delay. Findings suggest that the "critical path" was adopted by the courts without any contractual, legal or logical examination (and possibly initially as a result of a misunderstanding as to the term's meaning).

The paper has been unable to find any justification for the critical path approach in *any* of the English/UK judgements which approve of that method from 1999 up to the present day, or any explanation as to why Employer events which are sub-critical but would nevertheless cause delay beyond the contract completion date (irrespective of delays for which the Contractor is responsible), should be excluded from calculation.

This paper argues that a critical path approach to extension of time does not adhere to the fundamental purposes of an extension of time mechanism, that it is illogical, that it creates a major imbalance of risks in construction contracts, that it ultimately benefits neither party, that it burdens the industry with disputes, and that it likely has adverse effects on projects in multiple ways, and on the wider construction industry.

The paper argues that the critical path approach does not appear to be in accordance with the express terms of the JCT contract which the case law in UK is built on, and furthermore that it appears not seem to accord with fundamental principles of contract law in the UK and many international legal jurisdictions. A similar examination is included of *concurrent delay*, and its journey through Society of Construction guidance and English legal decisions, with similar conclusions.

The paper finds that judgements which do not take the critical path approach are in danger of becoming forgotten, and that a decision in the English Court of Appeal in 2018 by the Society of Construction Law's President Lord Justice Coulson, *could* have the effect of making the critical path method immune from legal attack in English common law and in jurisdictions which might take lead from that approach.

The author's involvement in the construction industry began with work experience with a Birmingham quantity surveying firm in 1990. He qualified as a Chartered Quantity Surveyor in 2006, and completed a Masters degree in Construction Law and Dispute Resolution at King's College London (with Merit) in 2007. He became a

Fellow of the Chartered Institute of Arbitrators in the same year. My father who has been of some help in discussing the matter and lending me his old text books, qualified as a Chartered Surveyor with Silk and Frazier in 1963 (together with the late great Sir David Bucknall OBE!), before becoming an independent construction claims advisor in 1982, and obtaining the FCIArb qualification in the early 1990s. Only of incidental significance, but my grandfather was President of the Birmingham Law Society in 1959, and a great-grand father was the owner of a company which built large industrial chimneys in the Midlands in the early 20th century. This author aims to provide an independent voice of reason to the modern construction industry.

IMPORTANT NOTES

Much of this paper considers matters in the round, i.e. in a way which is non-specific to particular forms of contract or particular legal jurisdictions. Where particular forms of contract are considered, more often than not the subject is the JCT form used in the UK. The main reason for this is that the English case law is largely based on the JCT contract, and the Society of Construction Law Protocol - which is of international and cross-contract influence – is (in regards to the matters discussed in this paper) in part an interpretation of English law. Furthermore, the JCT provisions serve as a good point of reference for comparison with other forms of contract.

Any solution to EOT is problematic in some way. No criticism is made in the paper of the approach taken by professional individuals or organisations, but rather of methods in the industry which have evolved in a complex way through a number of factors and sources, not least the demands of developers. Whilst recognising the skill and knowledge of delay analysts, the document does however challenge and/or criticise the role of critical path analysis in extension of time. This is not intended to dishearten delay analysts and respects their skills and work that they do. Criticisms are made of the Society of Construction Law's approach to concurrent delay (and critical path analysis), but it should be recognised that the SCL's Protocol is an effort of great complexity and breadth, which will inevitably by its nature be imperfect.

This report does not consider prolongation costs.

It should also be noted that the conclusions, points and arguments set out in this document represent only a point of view or potential point of view.

INTRODUCTION

This report reviews 21st century approaches to extension of time on construction projects. It relates these issues to the perilous financial situation faced by many construction companies and a consequent potential risk to the sustainability of the general contracting model of construction procurement, and also the rapid expansion of the construction disputes industries.

The report identifies various issues with the unreasonable application of delay damages by Employers/developers, but focuses specifically on 2 issues in relation to the practice of assessing extensions of time:

i) Critical path method (Parts 1,2,4,6,7,Appendix A-C of the report)
ii) Treatment of parallel or concurrent delays (Parts 1,5,6,Appendix D-F of the report)

Part One of the report gives an overview reminder of the hardships faced by construction companies in general, and also specifically in relation to liquidated damages/delay damages. It also sets out reasoned characteristics of a fit for purpose extension of time mechanism, and then explains the basis of critical path analysis.

Part Two explains the premise of the prevention principle, gives an overview to the treatment of extension of time in the U.K. in the 19th and 20th centuries, and then sets out how the application of critical path analysis to extensions of time has developed in the UK's law and industry guidance.

Part Three explains various practical/technical/conceptual problems which critical path analysis appears to suffer from.

Part Four sets out what this report contends is a better interpretation of the terms of standard form contracts in conjunction with fundamental legal principles.

Part Five considers the related narrower issue of concurrent delay.

Overall concluding comments and a proposed extension of time mechanism are included in Part Six. Appendices are in Parts Seven and Eight. Part Seven (Appendix A) reviews the concept of 'contracting out' of the 'prevention principle' and/or 'own wrong principle'. Appendix E in Part 9 reviews the English case law on concurrent delay.

A bibliography and table of cases is included in Part Nine. The author has provided law report citations for judgements, but has not had access to all of those judgements. In some cases this is noted within the report.

Three points of conscience are stated on page 106.

Numbers with the blue headings are referred to within the document as 'sections'.

THIS PAPER DOES NOT CONTAIN LEGAL ADVICE. THIS PAPER DOES NOT PROVIDE ADVICE OR GUIDANCE, IT IS A DISCUSSION PAPER, AND IS NOT INTENDED TO BE RELIED UPON.

THE WRONG PATH

PART 1
HELICOPTER VIEW

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1. THE PERILS OF CONTRACTING AND THE DAMAGE DONE BY ARBITRARY AND UNREASONABLE LIQUIDATED DAMAGES

Construction is a risky business. Pricing in advance, committing to fixed completion dates, the uncertain inputs of labour and management, other factors outside of the contractor's control. Then there's the lack of certainty over how many tendered jobs are going to be won, and the effect on demand of the fluctuating state of the economy. Sub-contractors are arguably in an even less fortunate position than general contractors. A large proportion of their costs are on wage bills which can not be delayed. Interest needs to be paid on any facility for working capital.

Particularly where the flow of work to the industry is less than the capacity available, tender prices submitted by contractors will be uneconomically low. In the period 2010-2016, all U.K. construction profit (including the much more profitable house building industry) was around 2.7%. In 2017 the top 100 UK contractors (excluding house builders) were reported to have made an average of 1.5% pre-tax profit[1] [2].

This seems fairly remarkable bearing in mind that the building contractor (apart potentially from the bank) is the one organisation without whom the asset could not be built. Furthermore, whilst the asset is the owners', it can also be seen as a lifelong legacy to the work done by the construction contractors who built it: a memorial (often literally) to the contractor and its sub-contractors. Furthermore, in 19 years of study (official UK construction industry annual publications[3]), timely performance of the construction phase outperformed the employer's design phase 15 times, compared with the respective periods planned by the employer". This is notwithstanding anecdotal evidence that the design phase has become less and less complete at the point when the construction phase starts.

An article in Building Magazine in 2018[4] stated after the collapse of industry giant Carillion, "*More careful thought needs to be given by clients when assessing the risk of Contractor failure…**This requires** an openness about costs, **greater flexibility in contracts and a shared recognition that each participant – main Contractors, subcontractors and suppliers – need to make a reasonable profit to sustain the development of their long-term businesses**."*

In 2017, 2,792 construction companies in the UK went into insolvency[5]. Almost one in five companies that became insolvent was a construction Contractor. In July 2019, the UK's longest established builder, Durtnell's, went out of business after 428 years. In 2020, Arabtec, previously the largest building contractor in UAE, went into liquidation.

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[1] https://www.theconstructionindex.co.uk/news/view/construction-pre-tax-margins-average-15

[2] Initial research (beyond the scope of this report) indicates that this generally compares to around 16% for Employers/Developers (lessors of property), as much as 23% for banks, around 15-18% for lawyers, and around 12-14% for real estate agents.

[3] https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/articles/constructionstatistics/number192018edition (see page 14)

[4] https://www.building.co.uk/communities/how-do-we-reduce-the-risk-of-another-carillion-happening/5092529.article Mr Tim Haynes

[5] https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/articles/constructionstatistics/number192018edition

When construction firms go under, it jeopardises the success and viability of projects they are working on, causes financial distress to supply chains, and also results in lost collective experience to the construction industry which employers will no longer be able to use.

Furthermore, in the aggregate, such wholesale failures must have a harmful effect on the economy as a whole. Estimates have suggested that the construction industry's turnover accounts for around 10% of the UK's Gross Domestic Product, and in many countries that figure is likely to be higher. And not only is construction a heavyweight amongst industries but there are grounds for contending that it punches above even its own substantial weight[6]. According to economist Patricia Hillebrandt, "*in most countries* ***construction provides about*** *half the gross domestic fixed capital formation ie* ***half the production in the economy***"[7].

To an extent, it is submitted, it becomes a vicious circle, because as studies have shown, construction cycles have greater amplitudes than cycles in GDP and in construction the downs have been more pronounced than the ups[8]. As Sir Michael Latham pointed out in 1994[9], "*the industry remains dependent upon wider economic stability".*

Bearing in mind that delay damages are often capped (if at all) at 10% of the contract price, and considering contractors' relatively low margins, on a major project delay damages could likely represent potentially years' worth of trading for a contracting firm. If damages aren't capped it's easy to see how easily they could wipe contractors out completely in one hit. Modern approaches to extensions of time and liquidated damages must – it is submitted - play a significant part in the collapse of construction firms referred to above, and be a substantial contributor to the unhealthy state of construction industries.

This report explains why such modern approaches are not only unfair to contractors but also why they are completely unsuitable for the tasks at hand, and likely to be directly detrimental to developers on individual construction projects.

2. THE IMBALANCE OF LIQUIDATED DAMAGES IN THE 21st CENTURY

Upon inspection it becomes clear that the playing field upon which liquidated damages may be imposed in the 21st century, is by no means a level one, and that such 'damages' might actually represent far more than legitimate compensation to Employers injured by Contractors' slow performance.

In fact, whilst it is fully appreciated that measures need to be included to ensure that contractors can not be left to dawdle at will, the odds are stacked very firmly against the builder indeed, and Employers have a seemingly ever-growing armoury in regards to obtaining payments in the form of delay damages from builders (including

[6] Construction is very labour intensive (in part because of the comparative lack of pre fabrication) so proportionately it creates a lot of jobs directly, as well as producing assets which are vital to other industries.
[7] Economic Theory and the Construction Industry 3rd Edition
[8] Hillebrandt Economic Theory and the Construction Industry 3rd edition, Page 26
[9] Joint Review of Procurement and Contractual Arrangements in the united Kingdom Construction Industry . Final Report – Constructing the Team; Sir Michael Latham
Department of the Environment 1994

what appear to be unique exceptions to at least 3 different fundamental legal principles).

The following points should be noted in this regard:

i) The contractor might finish late through no real fault of its own other than accepting a date by which to complete the Works, which in fact proves to be have been unreasonable or unachievable (see section 3 of this report)
ii) The contractor – particularly in a single stage tendering process - often has little say in what that fixed completion date will be in the first place. Unlike the Contract Sum which is usually competitively tendered, the Date for Completion is usually stated in the contract documents, and included in the contract often with little or no negotiation (see section 3 of this report).
iii) In construction contracts the contractor has to prove that it is entitled to an extension of time. In effect, the consequence of this is that in the ordinary case of a project which has run late, the contractor has to prove that the Employer is NOT entitled to delay damages. (see section 3).
iv) The inclusion of 'LADs'/LDs/liquidated damages, in construction contracts means that just as the Employer does not have to prove liability for delay (point iii above), neither does it have to prove the measure of its loss. Indeed, the employer does not even need to have suffered a loss equivalent to the damages. LDs could be argued to benefit all parties, however contractors might argue that a cap on general damages could be used instead (see section 3).
v) Where a condition precedent is included in the claims clause in the contract, subject to the applicable law, if the contractor does not give notice of the employer's delay event within the period and in the method stated in the contract, then it may irrevocably lose its entitlement in relation to the event. It is conceivable that contractors could find themselves paying out liquidated damages to employers on procedural grounds in relation to delays which were caused by the employer itself. (not reviewed in this report)
vi) The growing development in construction contracts requiring ongoing project data, may in effect become something of a one way street, and act as a contractual disclosure mechanism. Failure to comply might in some contracts act as a 2nd line of condition precedent against substantive entitlement (not reviewed in this report).
vii) The growing development of requirements for contractors to submit notifications, claims and other documents on particular forms of software and in a particular form and manner, might in some contracts act as a 3rd line of condition precedent defence against substantive entitlement. (not reviewed in this report).
viii) The development of the concept of project fraud. In extreme situations such a contention might serve some appropriate purpose, however there appears to be a growing and alarming trend of suggestions that contractors' attempts to recover what they might consider to be bona fide entitlement might amount to some kind of criminal act. There must be occasions where this concept is being used to intimidate contractors from pursuing their proper entitlement, in addition to standard commercial pressure (actual or perceived) upon Contractors not to submit claims in accordance with the requirements of the contract. (not reviewed in this report)

ix) Best endeavours clauses. It was suggested by a lawyer in an online webinar in May 2020[10] that under JCT contracts, the inclusion of a reference to "best endeavours" means that the contractor has an obligation to "accelerate" to recover employer delay (this report includes a suggestion that this contention can not be correct, see Appendix A).
x) Depending on how float in the contractor's programme is treated, the employer may be able to obtain damages for an overall period of delay which in retrospect would not have arisen at all had the employer's own earlier delay not occurred.
xi) the introduction of critical path analysis in relation to extensions of time which, instead of measuring the employer's delays beyond the Completion Date so that they can be deducted from the overall period of delay in order to arrive at the aggregate period of delay in respect of which the contractor is liable for liquidated damages, assesses incremental delays by either party to the expected date of actual completion (see Section 5).
xii) increasing complexity of methods of delay analysis. The options available to competing delay experts and the complexity of their work, makes it extremely difficult to demonstrate any particular extension of time entitlement on the balance of probabilities (see Section 13).
xiii) **The treatment of 'concurrent delay', and in particular 'first in time' approaches, which seem to scythe entitlement seemingly arbitrarily from the contractor (see Part 5).**

The task of disproving employer delay damages, including requirements in relation to record keeping, notification, progress reports and the submission of up to date programmes, has silently become to all intents and purposes, a separate collateral project in its own right. This report argues that the collateral project does not benefit any of the participants in the construction process, but in particular that the process of obtaining an extension of time has become far too complicated and far too difficult.

3. A FIT FOR PURPOSE EXTENSION OF TIME CLAUSE

The Court of Appeal of England and Wales, confirmed in the case of *Peak Construction (Liverpool) Ltd v McKinney Foundation Ltd (1970)*[11] that a legal principle referred to as the prevention principle (as distinct to a prevention approach to extension of time assessment, as referred to elsewhere in this paper), which was set out in various appeal court judgements in the 19th century, still applied.

The principle is to the effect that the delay damages clause and/or the stated completion date, becomes inoperable if the Employer prevents the Contractor from finishing on time, by causing delay to completion of the project beyond the Completion Date for which the contract does not enable an extension of time to be given.

It's often said that an extension of time clause is included in a construction contract in order to avoid the prevention principle being breached. As explained further in the

[10] "I fought the law and the law won: a construction disputes update"
[11] 1 BLR 111

discussion in this report of the prevention principle, that can not be the only reason why the mechanism is included.

An extension of time clause is needed, because events typically take place during the course of construction projects which were unknown at the time when the parties entered into contract, and because passing the risk to the Contractor of any and all delays which might be caused, including those caused by the Employer, would be untenable and commercially unviable, even assuming it was legally enforceable.

Typically a construction contract will include a triumvirate of provisions linked to the completion of the project:

- Contract completion date or period for the construction works
- Extension of time provision
- Delay damages clause to be applied if the contractor does not finish on time

It's important to recognise that **the purpose of including a *fixed completion date* in a construction contract, is to ensure that the Contractor finishes the project in a timely fashion, or in a reasonable time**, or that it doesn't take longer than necessary. Keating on Building Contracts 5th edition explained the point further (page 218): *"If no time is specified for completion of the contract a reasonable time for completion will normally be implied. What is a reasonable time is a question of fact to be considered in relation to circumstances which existed at the time when the contractual services were performed."*.

With a fixed completion date, there's no need for the Employer to prove what a reasonable time for completion was (at least in relation to the original scope of Works), because this period is replaced/represented by the period stated in the contract, as adjusted for Employer risk events. And it's this adjustment for Employer events, where the extension of time clause comes in. The extension of time clause provides for adjustments to be made to the Completion Date in respect of delays caused by matters which were unaccounted for when the parties agreed the contract, and for which the Employer took the risk. Just as the original contract period is taken to represent a reasonable period for undertaking the contract works, **the job of the extension of time clause is therefore to evaluate a reasonable additional period for completion by reference to the Employer risks which eventuated**.

Just as the original contract period was set on the original scope of works and scope of risks, the revised contract period is set based on the final scope of works and scope of risks. **A fit for purpose model adds to the Completion Date stated in the contract, a reasonable time for Employer risk events, and the Contractor's obligation should be to complete within that revised period.**

This principle even applies, it is contended, where the parties know that the required programme for the original scope is tight and where the Contractor buys into that time on the basis of resourcing etc accordingly. What the Contractor 'buys' in that situation is the *unreasonable* basis of the programme for the *known scope* of works and scope of risks. It does not buy an unreasonable programme for *unknown* Employer risk events, which – should they eventuate – remain in the realms of the

reasonable period, subject to any alternative express definition should one be capable of formulation[12].

This reasonable period approach is fortified when we look at the prevention principle and the origins of extension of time in sections 6-8 below.

Calculation of a reasonable additional period, is not the only requirement of a fit for purpose mechanism though. On its own, the fixed contract period is a very substantial undertaking by the Contractor, because it has to accept the risk of the original Date for Completion actually proving to reflect a reasonable time for completion of the scope of Works, even though (unlike the competitively tendered price) it is often thrust upon it by the Employer determined perhaps by means unknown, and even in the best case scenario represents a substantial unknown.

But the situation is made worse still for the Contractor by the triumvirate mechanism (contract completion date, EOT clause, LD clause), which - whilst neatly solving the problem of defining the time to complete - at the same time effectively reverses the burden of proof in relation to delay damages and means that instead of the Employer having to demonstrate that it is entitled to delay damages, the Contractor is effectively left to demonstrate that the Employer is NOT entitled to delay damages, because if the project is later than originally planned (which may be due to no fault of the Contractor) then the Contractor's primary and often sole defence will be likely to be an extension of time.

In order for the triumvirate mechanism to work successfully therefore, it must be the case that due to the reversing of the burden of proof, it must be absolutely vital that the process of obtaining an extension of time is straight forward where Employer delays have arisen, and for the Contractor not to be short changed in its entitlement. This must be something which the Employer accepts in anything approaching a balanced and fit for purpose contract. **If the Contractor is to be required to prove its innocence, it can not have barriers up to impede it from doing so[13].**

Furthermore, not least bearing in mind that EOT should logically represent a *reasonable* additional time to complete, a method of assessment is not suitable if it involves examination in fine detail. It's submitted that if Employers need to peer into detailed calculations then the Contractor has performed sufficiently and there should be no need for damages. Irrespective, there is another reason as well why such precise attempts at measurement are inappropriate. Aside from the nature and purpose of an extension of time clause, it is also a matter of practicality. Unless there's a total suspension of the Work, it's impossible to measure lost performance precisely, because there are infinite answers to the question of how productive each part of the works had to be so as to enable delivery within the agreed fixed time. Doing one bit fast means another bit can be done more slowly and visa versa. You can't definitively measure the effects of individual events upon REQUIRED

[12]In JCT contracts, the Contractor's extension of time entitlement is framed as being contingent upon it having gone to "best endeavours" to mitigate the Employer's delay. According to precedent (Terrell v Maby Todd – "best endeavours" refers to the Contractor doing what is "commercially practicable") this standard (which arguably is not an obligation anyway) does not require the Contractor to accelerate. If it did then the extension of time being contingent upon it would likely amount to an infringement of the prevention principle.

[13] See section 2

performance, because other than in the most simple of projects, required performance for any particular part of the Works is impossible to precisely identify.

The key requirements of a fit for purpose EOT clause could therefore be said to:

1. Provide for a reasonable additional time for completion of the Works, in respect of Employer risk events which were not a part of the original contract scope.

2. Enable the contractor to demonstrate entitlement in a simple and straightforward way

3. Use a method of assessment which is not too detailed / not assessed in an overly prescriptively manner.

4. Not 'short change' the Contractor in EOT

4. COMPUTERISATION AND THE RAPID EXPANSION OF THE DISPUTES INDUSTRIES

Sims 3rd edition[14] – published in 1998 – said, : *"Computers are commonly used to generate graphical information to assist in presenting a claim. Such graphics can not usually be said to 'support' the claim in the same way as evidence will support it, but if the graphics are used sensibly, they can pictorially represent what the documentary evidence proves happened on site…A particularly useful tool is the computer planning programme…They have a part to play in extensions of time…"*

It's just worth mentioning, that critical path analysis was considered at the time to be primarily a planning tool, as Sims described the software above. That's what it was developed for.

The section in Sims continued with two further observations, the accuracy of which we are in a better position to assess today, some 24 years later:

> *" We firmly believe that all architects and project managers should use computerised programmes to monitor progress and assist in analysing claims… If this was done, all parties would be assisted in making prompt claims and speedy responses,* ***claim making and understanding would be eased and disputes avoided or at least made less frequent****"*
>
> *"…On the other hand, it should be borne in mind that computer programs are not the solution to all the ills which afflict Contractor's claims and it is easy to be seduced into thinking otherwise by the slick visuals in a typical software package."*

[14] Building Contract Claims, 3rd edition Powell-Smith & Sims

It's interesting to see what the aspiration was when the computerisation of delay claims began. However this paper firmly considers that the 2nd of these comments has proved to be the more accurate, and that whilst the construction industry does indeed appear to have been thoroughly "*seduced*" by the graphics (and arguably also by those who advance their use in a continuing search for 'precision' in a realm where none can be attained and where none ought to be required), disputes have most certainly not been made less frequent; very much the opposite.

It's clear that increases in the prevalence and cost of delay management, claims and disputes have taken place at a rapid scale since the 1990s. A world-wide industry relating to construction disputes, has appeared from almost nowhere in little more than two decades, partly in light of the changed "*attitudes*" towards extensions of time observed by Mr Knowles in 1992 (see Section 9).

An indicative timeline can be provided below:

- Construction claims specialists slowly began to arise in the 1970s and 80s in the form of claims quantity surveyors (specialist firms included Knowles, High Point Rendell and Trett). It's understood that by the 1980s, a few law firms had lawyers who specialised in construction (perhaps such as Neil F Jones, Wragge & Co and Masons). For much of this period, extension of time generally dealt with in simple correspondence.
- 1990s, construction disputes industry remained relatively small. Extension of time claims dealt with in a straightforward manner without causation arguments, but based on narratives of Employer events, which might be supported by some basic charts, generally without reference to the critical path (other perhaps than at a high level on an as-planned basis). The generally accepted position was that for periods of parallel delay the Contractor would be entitled to extension of time, but not entitled to prolongation costs.
- Around 2010. Practice on extension of time claims had become more complex. Demonstration of EOT entitlement had switched to a focus on the shifting critical path. Construction claims consultancies were more prevalent. Construction planners working in claims began to become known as delay analysts. Claims consultancies turned into expert witness practices. Specialist construction departments had formed within major law firms.
- 2022. Construction disputes industry has become a massive industry world-wide. By now analysts favour retrospective approaches, and investigating the timing of Contractor delay events compared to Employer delay events. Legal practices which specialise solely in construction have arisen along with delay expert witness firms. Expert firms struggle to find delay analysts and project planners move away from live projects into forensic analysis. Ever growing numbers of arbitrators, with arbitration institutions boasting year on year record numbers of disputes. Accountancy firms are increasingly used on major international projects. The internet has lines of Counsel and Expert Witness, all specialising in construction, and likely mostly dealing with delay.

And yet the JCT contract (from which much of the law and practice is ultimately derived) still asks the Architect (and not the delay analyst expert witness) to determine in exactly the same way as it did in the 1980 if not before, whether a Relevant Event has caused delay, and still refers to the Architect (not the delay

analyst expert witness), making an "estimate" of a "fair and reasonable" extension of time, just as it did in the 1980 if not before.

It can't escape attention, that the explosion of the construction disputes industry has coincided with the development and application of computer software (and in conjunction with guidance given to the industry from well-meaning advisory bodies), and its use to measure delays by critical path analysis.

5. A LOOK AT CRITICAL PATH ANALYSIS

The general types of 'float' or 'spare capacity' in a construction programme, recognised in the 21st century, could be summarised thus:

- **Free float**, which can be said to relate to the amount of time that an activity may be delayed without delaying another activity.
- **Total float**, which (whilst difficult to define) can be said to relate to the amount of time that an activity may be delayed without delaying the works beyond the prevailing contract completion date.
- **Terminal float**, which can be said to relate to the amount of time that an activity may be delayed without delaying planned/forecast completion.

This report uses these terms consistently in this way.

The critical path approach measures terminal float.

The critical path is the longest path to completion of the works at any particular point in time. A critical path analysis (CPA), analyses how that critical path changes, in particular as a result of the introduction into the schedule of delay events.

What does this have to do with extensions of time, you might ask? Well, CPA assesses the effect of Employer delay when and to the extent that it falls on the critical path. **Rather than assessing delays beyond the contract completion date, a critical path approach calculates cumulative delays to the date on which the Works would otherwise actually be completed.**

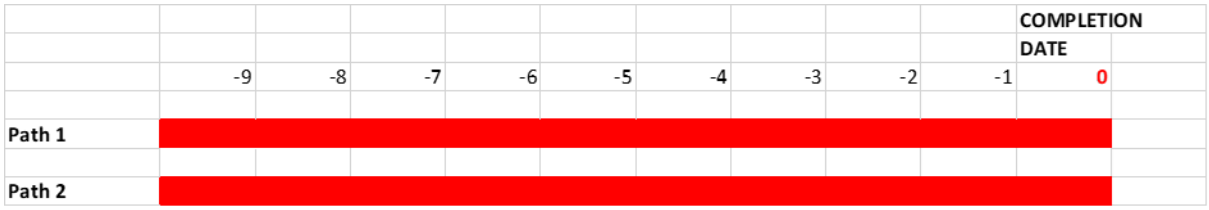
In order to qualify for extension of time using critical path method, the Employer event must:

a) affect the Contractor's actual progress
b) delay the completion of the project beyond the contract completion date AND
c) delay the longest path to the completion of the Works.

EXAMPLE SCENARIO 1

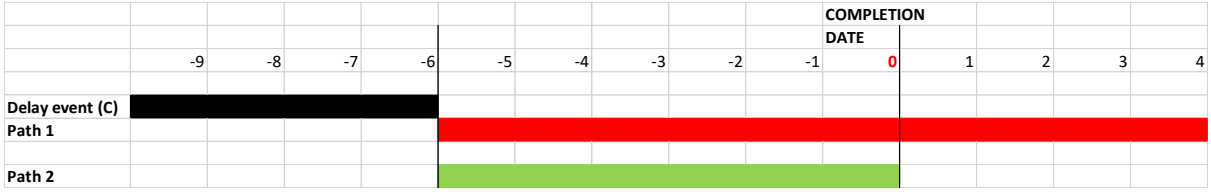
Imagine a project which is close to finishing. It's on schedule, and the Contractor is due to complete on the contract date, 10 working days from now.

The Contractor has 2 separate independent paths of work left to complete, and they are both critical, with 10 days of work left on each path. The resources can't be re-allocated between the paths.



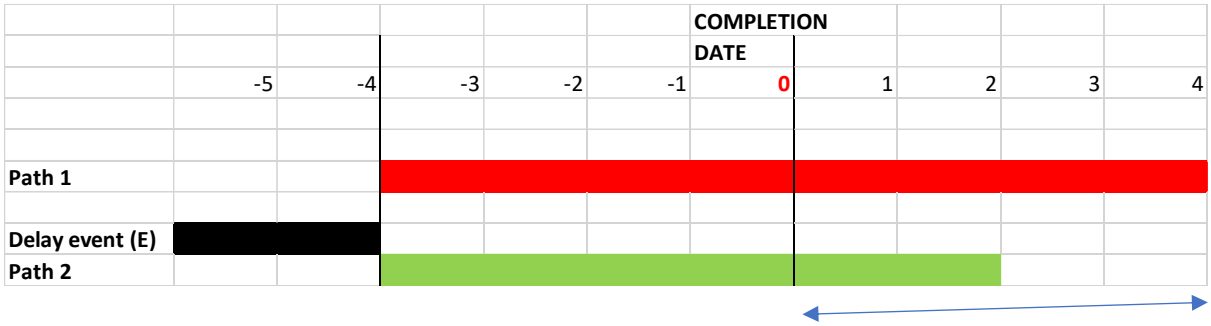
Then on day -9 (9 days before the contractual completion date), the materials which the Contractor needs (and for which the Contractor is responsible) for Path 1, don't arrive. Path 2 continues as planned.

The materials for path 1, don't arrive until after day -6. As of day -5, the Contractor is 4 days behind on Path 1, and due to finish the Works 4 days late:



Then, would you believe it, on day -5, the materials (for which the Employer is responsible) for path 2, don't arrive, and work on path 2 comes to a standstill. At this point though, path 2 is in terminal float so the Employer event doesn't matter. It doesn't affect the forecast date of Practical Completion.

The Employer-supplied materials for path 2 arrive after day -4. As of the start of day -3, the Contractor is still 4 days behind on path 1, and now also 2 days behind on path 2.



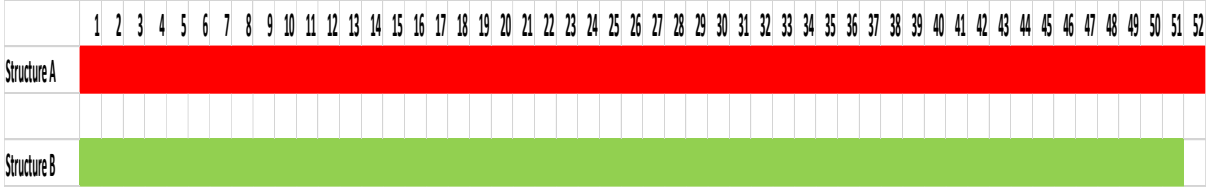
And that's how the job finishes. The Contractor was 4 days late. The Employer delay was not on the critical path and so caused no actual delay to the completion of the Works. **According to critical path method, Contractor is liable for 4 days LDs.**

This example is reviewed further in section 17 of the report.

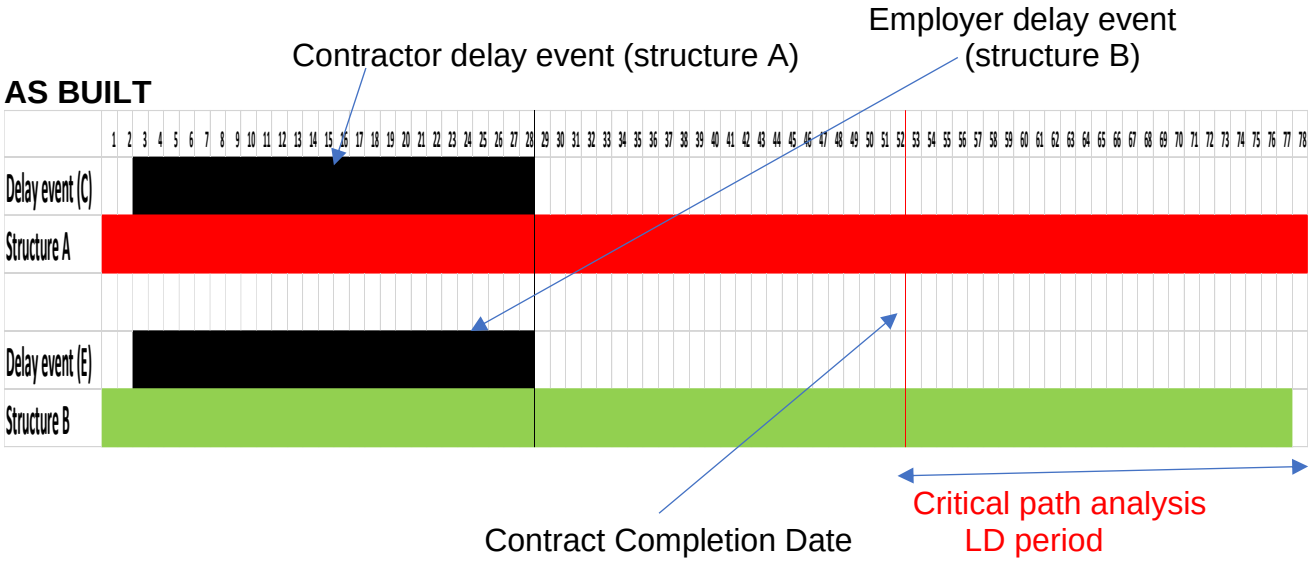
EXAMPLE SCENARIO 2

Imagine a project with 2 independent structures (1 Completion Date). there's a contract period of 12 months. **structure B is 1 week in float**, and so is not on the critical path.

AS PLANNED



Delay 'events' arise on both paths. on every occasion, the delay on the two paths starts at the same time, finishes at the same time, and has the same potency. Both paths will be delayed at the same time, by the same period. Now imagine that all of the delays on the critical path are Contractor delays, and all of the delays on the non-critical path are Employer delays. Let's say that the delays cause 6 months' delay to their respective structures/paths. The result is that both paths are delayed by 6 months, with the non-critical path finishing 25 weeks after the original completion date and the critical path finishing 26.

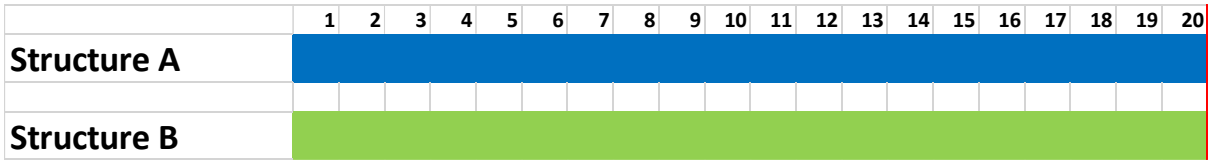


Critical path theory suggests that the Contractor has caused 26 weeks of delay and is liable for 26 weeks of damages. **In the above example, with a critical path approach, the Employer would be getting 77 weeks of work but holding the Contractor to a 52 week programme. It will be entitled to levy 26 weeks of liquidated damages even though it has taken use of all but one week of the actual construction period.**

That's an extreme example, but on most construction projects where a critical path analysis is used, the Contractor will be losing fit for purpose entitlement, and furthermore the Employer will become entitled to liquidated damages in respect of periods of delay for which it is jointly responsible itself, and which it has taken the benefit of. **This is in broad terms, the approach which the construction industry generally takes to assessing extension of time entitlement in the 21st century.**

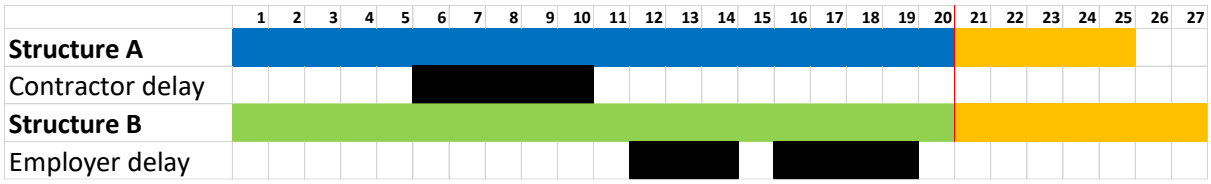
EXAMPLES SCENARIOS 3-6

The following **as-planned project** is used for **examples 3-6**:



EXAMPLE 3

In example 3, there is a contractor delay, and then a longer employer delay (delays shown in black):



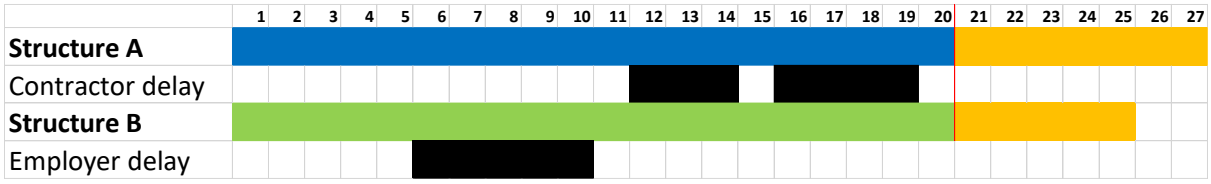
Contractor delays: 5 weeks

Employer delays: 3 weeks + 4 weeks = 7 weeks

The Employer delay only moves onto the 'critical path' in the last 2 weeks of the delay, so **EOT = 2 WEEKS**

EXAMPLE 4

In example 4, there is an employer delay, and then a longer contractor delay:



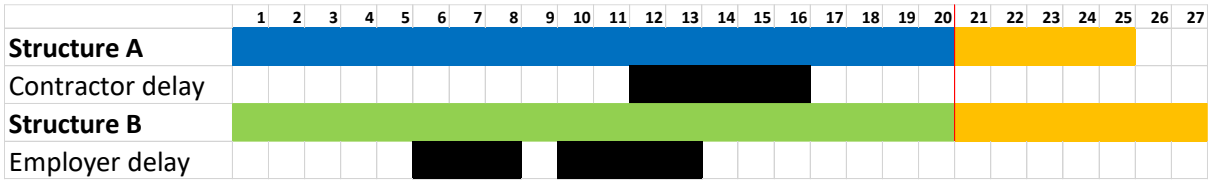
Contractor delays: 3 weeks + 4 weeks = 7 weeks

Employer delays: 5 weeks

The Employer delay is always on the 'critical path', so **EOT = 5 WEEKS**

EXAMPLE 5

In example 5, there is an employer delay, and then a shorter contractor delay:



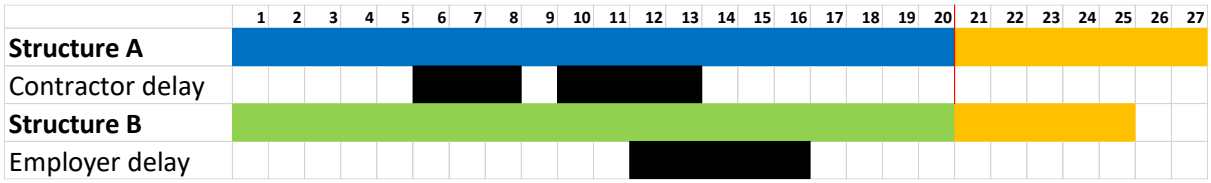
Contractor delays: 5 weeks

Employer delays: 3 weeks + 4 weeks = 7 weeks

The Employer delay is always on the 'critical path', so **EOT = 7 WEEKS**

EXAMPLE 6

In example 6, there is a contractor delay, and then a shorter employer delay:



Contractor delays: 3 weeks + 4 weeks = 7 weeks

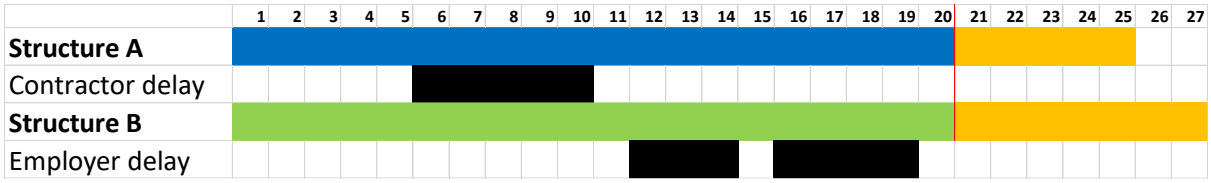
Employer delays: 5 weeks

The Employer delay is never on the 'critical path', so **EOT = 0 WEEKS**

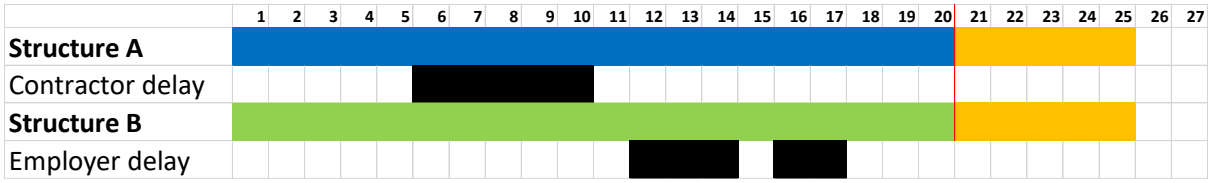
RETROSPECTIVE ASSESSMENT

Now let's look at **the same examples**, but doing a retrospective critical path analysis, i.e. looking backwards from the end of the project:

EXAMPLE 3



After 2 weeks (from the end going backwards), Employer delay is no longer critical:

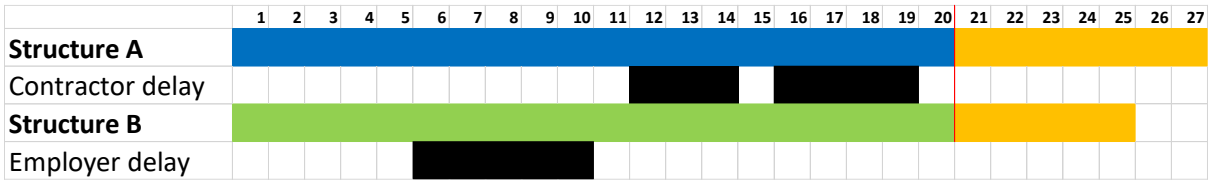


Contractor delays: 5 weeks

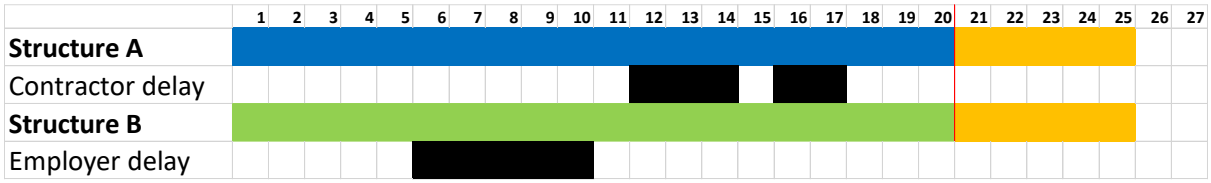
Employer delays: 3 weeks + 4 weeks = 7 weeks

EOT = 2 WEEKS (weeks 18 & 19)

EXAMPLE 4



After 2 weeks (from the end going backwards) Contractor delay no longer critical:

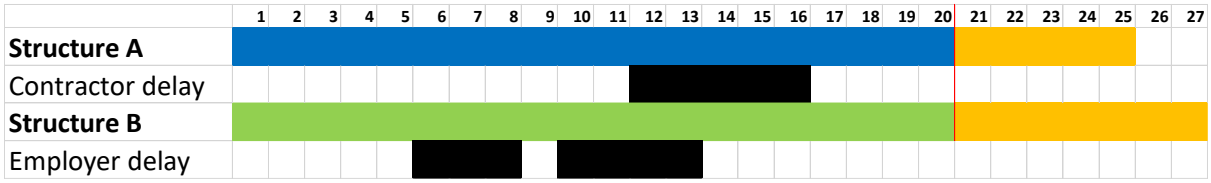


Contractor delays: 3 weeks + 4 weeks = 7 weeks

Employer delays: 5 weeks

EOT = 5 WEEKS (weeks 6-10)

EXAMPLE 5

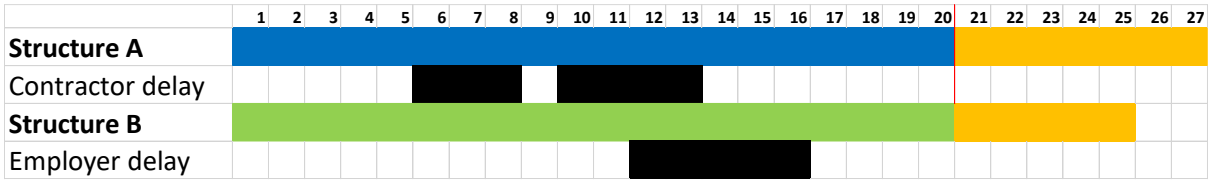


Contractor delays: 5 weeks

Employer delays: 3 weeks + 4 weeks = 7 weeks

Contractor delay never critical, so **EOT = 7 WEEKS**

EXAMPLE 6



Contractor delays: 3 weeks + 4 weeks = 7 weeks

Employer delays: 5 weeks

Employer delay never critical, so **EOT = 0 WEEKS**

SUMMARY OF RESULTS

Now let's check out a summary of the results:

			Planned float	Total Employer delay (weeks)	Prospective EOT (weeks)	Retrospective EOT (weeks)
Example 1	Contractor delay longer	Contractor delay first	-	2	0	0
Example 2	Delays same time	Delays same length	Employer path 1 week	26	0	0
Example 3	Employer delay longer	Contractor delay first	-	7	2	2
Example 4	Contractor delay longer	**Employer delay first**	-	**5**	**5**	**5**
Example 5	Employer delay longer	**Employer delay first**	-	**7**	**7**	**7**
Example 6	Contractor delay longer	Contractor delay first	-	5	0	0

In each case the retrospective and prospective assessments provide the same result.

In these examples, only where the Employer event comes first (and where it does not have planned float), does a critical path analysis provide full 'fit for purpose' entitlement for the delay to the original completion date caused by the Employer events (highlighted in red where the numbers match up). In other circumstances, it takes a prevention approach which assesses only delays which actually prevent the Contractor from completing the works by the date that it otherwise would.

Two things seem clear:

1. **The Employer can cause as much delay beyond the Completion Date as it likes without sanction (from an LD perspective), as long as it is not to an activity which is on the longest path.**
2. **The Contractor is fine if it is not itself in delay, but once it falls behind, it won't get any extension of time until such time as it has caught up again (with the Employer's delay).**

This approach to extensions of time appears to be arbitrary and illogical. It does not provide fit for purpose entitlement.

THE WRONG PATH

PART 2

HOW HAVE WE GOT HERE?

A BRIEF HISTORY OF EXTENSION OF TIME

6. SUMMARY HISTORY OF THE 'OWN WRONG' RULE

In Rede v Farr (1817)[15] Lord Ellenborough CJ said,"…*it would be contrary to* ***an universal principle of law*** *that a party shall never take advantage of his own wrong*".Lord Ellenborough was Attorney General and Lord Chief Justice.

In the House of Lords case of *New Zealand Shipping Co v Société des Ateliers et Chantiers de France (1919)*[16] Lord Finlay referred to, "*the very old principle…that a man* ***shall not be allowed to*** *take advantage of a condition which he has brought about himself*" (the reference here to "condition", being to a situation relating to the performance of the contract).

From this over-arching policy of law, various closely related principles can be seen to have developed. In *Alghussein Establishment v Eton College (1988*[17]*)* in the House of Lords, Lord Jauncey of Tullichettle said that, *"the clear theme running through* (the authorities) *was that* ***no man can take advantage of his own wrong****".*

One prominent branch of those cases, relates to situations where the acts of party 'a' have effectively prevented party 'b' from fulfilling the obligations which it owed to party 'a'.

In *Roberts v The Bury Improvement Commissioner (1870)*[18] Blackburn J repeated that,"*it is a principle very well established at common law, that* ***no person can take advantage*** *of the non-fulfilment of a condition the performance of which has been hindered by himself…".* As one consequence of that principle he explained that*, "he cannot sue for a breach of contract occasioned by his own breach of contract".* A logical deduction (from the word "hindered") would be that in fact he can't sue where there has been any act of hindrance on his part.

In *Holme v Guppy* (1836)[19], Parke B looked at the same matter from the perspective of the performing party saying, *"if the party be prevented by the refusal of the other contracting party from completing the contract within the time limited* ***he is not liable*** *in law for the default".* Effectively, this appears to be a doctrine of deemed performance. In *Nautica Marine Limited v Trafigura Trading LLC* (2020), Justice Foxton referred to Lord Sumption's dissenting judgement *Société Générale (London Branch) v Geys (2012)*[20], in which he referred to, "*the doctrine of deemed performance endorsed by the House of Lords in Mackay v Dick (1881)*".

Another line of cases which has developed from *Holme v Guppy*, is that set out iin *Dodd v Churton* (1897)[21] in which Lord Esher and Lord Justice Chitty took what *on the face of it* looks like something of a leap from the underlying principle of not taking advantage and held that, "*if the building owner has ordered extra work beyond that specified by the original contract which has necessarily increased the time requisite*

[15] 105 E.R. 1188
[16] [1919] AC 1
[17] [1988] 1 WLR 587
[18] [1870] LR 5 C P 310
[19] 3 M. & W. 387
[20] [2020] EWHC 1986 (Comm)
[21] 1 QB 562

for finishing the work, he is thereby ***disentitled*** *to claim the penalties for non-completion provided by the contract*".

It is from this decision in *Dodd v Churton*, which the prevention principle in the construction industry has originated (although see *Trollope & Colls* further below). It can be said that the extension of time clause cured the mischief identified by Lords Esher and Chitty, by enabling the Employer to measure an increase in the, "*time requisite for finishing the work*".

7. THE 19th CENTURY CONSTRUCTION INDUSTRY AND THE MOVE TO STANDARD FORMS

The general contracting model in which all or most of the construction work is let to one contractor with 'single point' responsibility, developed during the 19th century (i.e. 1800s)[22]. Prior to the widespread adoption of the general contracting method, tradesmen were typically appointed by employers directly and it is suggested were likely usually engaged on an ad-hoc basis rather than having fixed completion dates[23].

Historian Sara E. Wermiel[24] explains,"…*the great Victorian builder Thomas Cubitt (1788-1855)..trained as a carpenter, and around 1812 he began working as a general builder. He handled the work of his own trade and subcontracted with tradesmen in other fields. But as* ***he could not control the*** *quality or* ***timeliness of his subcontractors' work****, he began to employ tradesmen directly and dispense with subcontractors*". This was Cubitt: the Brunel of construction; the pioneer of the general contracting model.

Hudson on Building and Engineering Contracts 10th edition's brief commentary on *Duncanson v Scottish Investment Co* (1915)[25], implies that by *that* era (a century later), some trade contractors had a fixed completion date and others didn't.

The contracts which were the subject of the disputes in *Holme v Guppy* and *Dodd v Churton*, were probably something of an outlier even during the 19th century, in that they contained provisions for a fixed completion date and liquidated damages per week, but did not contain extension of time clauses.

Whilst the proposition that the prevention rule played a part in the development of extension of time clauses can't be ruled out, it is tentatively suggested that extension of time clauses likely developed initially during the 19th century, as the use of fixed completion dates and liquidated damages clauses came into prominence with the new general contracting model, and in particular at the very end of the 19th century as the industry began to adopt standard forms of building contract.

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[22] in fact, although the point is of no consequence, it should be noted that it was a slightly different model as general contractors during the 19th century typically employed tradesmen, rather than sub-contracting to specialist firms as they do today

[23] This suggestion appears to be supported by the fact that the penalty rule cases only appear to start in the late 19th century, which logically suggests that fixed damages payments were likely few and far between prior to that (and it is unlikely that weekly liquidated damages would be included in a contract without a fixed completion date).

[24] https://www.arct.cam.ac.uk/system/files/documents/vol-3-3297-3314-wermiel.pdf *"…The Rise of the General Contractor…in the Nineteenth Century"*

[25] [1915] SLR 790

The idea of standard form construction contracts was put forward by the General Builders Association (the predecessors of the National Federation of Building Trades Employers) in 1888 where they observed that, "*it is not right to bring under the builder's consideration legal conditions the effect and value of which he cannot rightly estimate without consulting his solicitor*"[26]. Conversely, the thinking went, if standard terms were used, then the builder would know their effect.

It's particularly relevant to the wider discussion of the prevention principle in this paper, to note that the introduction section to the 2nd edition of "*The Standard Form of Building Contract*", a commentary by Derek Walker Smith and Howard A Close, published in 1953 (which contained a preface from the Royal Institution of British Architect's Chairman on the Joint Tribunal on the Standard Form of Building Contract) stated that, ***"the whole benefit of standardisation is lost…if attempt is made to insert special conditions of contract by altering or adding to the text of the printed conditions".***

The 1st edition of the book, published in 1939[27], had explained[28], "*The position of the Standard Form acts as a guarantee to both parties. Both are aware that skilled representatives of their interests have taken part in the compilation of the document and have acquiesced in, and given their sanction to, its final form*"[29].

This author of this paper respectfully notes that the position outlined in that book, can be contrasted with the situation relating to the Society of Construction Law's Protocol on delay & disruption, which is essentially compiled by representatives of the disputes industry.

8. THE PREVENTION PRINCIPLE AND CONSTRUCTION DELAYS

Although the *Dodd v Churton* contract contained a liquidated damages clause which divided damages up into each week of delay, the approach which Lord Esher and Lord Justice Chitty took was not to look at delay as a question of analysing which parts of it were the fault of which party, but rather in absolute terms as a question of i) whether the condition to finish could or could not be satisfied, and ii) if not, whether the Employer's acts or omissions played a part in that state of affairs.

The approach was repeated by the Court of Appeal in *Wells v Army and Navy Co-op Society* (1902)[30]. In that case there was an extension of time clause which covered "*other causes beyond the contractor's control*". Perhaps controversially, the judge held that this clause did not go far enough so as to encompass breaches by the Employer, and the Employer's delays in late handover of the Site and provision of drawings therefore set time at large per *Dodd v Churton*.

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[26] The 2nd edition of The Standard Form of Building Contract, by Derek Walker Smith and Howard A Close, published in 1953

[27] The first recognised standard form identified by the Joint Contracts Tribunal's historians appears to date from 1903 or shortly beforehand, and the R.I.B.A published a Standard Building Contract from 1931 (https://corporate.jctltd.co.uk/about-us/our-history/)

[28] We know this because the introduction section to that edition is also reprinted in the 2nd edition

[29] This author of this paper notes that the position outlines in that book, can be contrasted with the situation relating to the Society of Construction Law's Protocol on delay & disruption, which is essentially compiled by representatives of the disputes industry.

[30] KING'S BENCH DIVISION(1902) 86 LT 764

Vaughan Williams LJ held that, "*If in the contract one finds the time limited within which the builder is to do the work, that means not only that he is to do it within the time, but it means also that he is allowed the time within which to do it*".

This case seems to possibly be the only well known instance prior to 1970, of the prevention principle being applied in a contract which, by including an extension of time clause *and* a liquidated damages clause, recognised the principle of segmented delay, and assessed delay to completion not in absolute terms but rather by a matter of degree[31].

In *Peak Construction (Liverpool) Ltd v McKinney Foundation Ltd*[32] (1970), the bespoke contract between Peak and the employer, unusually, contained a very rudimentary extension of time clause which was held not to cover delays caused by the Employer (or consequently liquidated damages in the Sub-Contract).

The Court of Appeal held that in circumstances where the clause did not cover matters which eventuated and which caused delay and which were the fault of the Employer, then the Employer could not claim any liquidated damages.

Lord Justice Salmon held that, "*If the failure to complete on time is due to the fault of both the employer and the contractor, in my view the* (liquidated damages) *clause does not bite. I can not see how, in the ordinary course, the employer can insist on compliance with a condition if it is partly his own fault that it can not be fulfilled: Wells v Army & Navy Co-operative Society Ltd; Amalgamated Building Contractors v Waltham Urban District Council; and Holme v Guppy*".

He then said, "*I consider that unless the contract expresses a contrary intention, the employer, in the circumstances postulated, is left to his ordinary remedy; that is to say, to recover such damages as he can prove flow from the contractor's breach. No doubt if the extension of time clause provided for a postponement of the completion date on account of delay caused by some breach or fault on the part of the employer, the position would be different. This would mean that the parties had intended that the employer could recover liquidated damages notwithstanding that he was partly to blame for the failure to achieve the* (original) *completion date. In such a case the architect would extend the date for completion, and the contractor would then be liable to pay liquidated damages for delay as from the extended completion date"*

So Lord Justice Salmon is explaining is:

i) Where there is no extension of time clause which covers an act of the Employer which is partly the reason for delay to completion, then ordinarily the liquidated damages clause falls away.
ii) The Employer in such circumstances is left to prove delay and loss
iii) The conclusion is subject to the contract expressing a contrary intention. If the contract contains an extension of time clause which allows the time to be extended where delay is caused by the Employer, then the LDs clause would survive, notwithstanding that the Employer's actions are part of the reason

[31] The adoption of standard form contracts with comprehensive extension of time clauses, meant that the principle was not often relevant anyway.
[32] 1 BLR 111

why the ORIGINAL contract date can not be achieved. That is precisely how the contract expresses a "*contrary intention*".

This is a vital point to understand. Lord Justice Salmon is NOT saying, that the prevention principle simply may not apply to some particular agreement or contract, he is saying that the parties may, by including an extension of time clause, avoid the ordinary effects of the prevention principle.

Lord Justice Edmund Davies explained it in a slightly different way, saying that[33], "*The stipulated time for completion having ceased to be applicable by reason of the employer's own default and the extension clause having no application to that, it seems to follow that there is in such a case no date from which liquidated damages could run and the right to recover them has gone*".

This could be said to be the same logic as Lord Justice Salmon's. Notwithstanding that the contract recognises time segmentally for the purposes of damages, the obligation to complete on time remains absolute to the extent that the contract does not allow an extension of time in respect of an event which is the Employer's fault or of the Employer's causing. There is no mechanism for calculating another date from which the damages can start (which should be the end of the extended contract period), and they can not start from the unextended original contract completion date, because that original fixed period can no longer be asserted by the Employer.

The judges' conclusions seem to reflect the *Holme v Guppy* premise ("*the party be prevented by the refusal of the other contracting party from completing the contract within the time limited"* that the, "*stipulated time for completion*" has "*ceased to be applicable*"). Once the Employer has by his actions made that date unachievable, or extended the necessary period for undertaking the work beyond that date, i.e. "*if the building owner has* (for example) *ordered extra work beyond that specified by the original contract* (or otherwise caused delay) *which has necessarily increased the time requisite for finishing the work" (Dodd v Churton),* then the completion date falls away. Time must be at large.

As Lord Justice Edmund Davies puts it, "*The stipulated time for completion having ceased to be applicable by reason of the employer's own default….there is in such a case no date from which liquidated damages could run".*

A good analogy for the application of the 'own wrong' rule in this manner is this:

1. If I wagered a man £50 that he could not run to the end of the road within 60 seconds, and then as he took upon the task I leapt out from the pavement and pushed him to the ground, making the task impossible or impractical, and thereby preventing him from getting to the end within time or at all, then I should not be able to enforce the wager. *Rede v Farr, New Zealand Shipping Co v Société des Ateliers et Chantiers de France*.
2. Even if we agreed that if he completed on time he would win £50, but if he completed late he would give me £1 for every second that he is late, then the bet would still be as to **whether or not** he can finish on time. If I make the task of finishing within 60 seconds impossible or impractical, then I can not rely on the bet.

[33] https://mosaicprojects.com.au/PDF-Casewatch/1040_Peak-v-McKinney.pdf Doyles

3. If we said that I will give the man profitable work building a barn, but if he finishes it in later than 60 days then he has to give me £1 for every day of delay beyond that date, then the 60 days remains a fixed obligation.
4. If we said that I will give him profitable work building a barn, and he has to finish it in 60 days, or else he has to give me £1 for every day of delay beyond that date, save for that if I make that task impossible or impracticable by doing certain things, in which case the 60 days will be extended, then:
    i) In the circumstances of those certain things occurring, the 60 days is not fixed (to the extent of those circumstances)
    ii) **In the circumstances of other things that I might do to make the task impossible or impractical occurring, the 60 days remains fixed. Because I can not benefit from my own 'wrong', I can not rely on the 60 day period. Time becomes at large if I cause delay. This is the prevention rule in construction delay cases (see also 3 above).**

The reason why adding an extension of time clause keeps the damages alive, is that it effectively changes the obligation from one to finish by date A to one to finish by date B or C.

In that way, the obligation (and therefore damages) can be enforced to the extent that delays to the original date were not on account of the Employer's acts.

This is the same as the 'fit for purpose' clause, identified in section 3 above.

The matter was considered again in the Court of Appeal in *Trollope & Colls Ltd v North West Metropolitan Regional Hospital Board* (1973)[34], where Lord Denning set out the *Holme v Guppy* principle again, and stated, "*It is well settled that in building contracts - and in other contracts too - when there is a stipulation for work to be done in a limited time, if one party by his conduct - it may be quite legitimate conduct, such as ordering extra work - **renders it** impossible or **impracticable for the other party to do his work within the stipulated time**, then the one whose conduct caused the trouble can no longer insist upon strict adherence to the time stated*"

Clearly Lord Denning's conclusion that the Employer, "*can no longer insist upon strict adherence to the time stated",* is a finding that time was set at large. This is the whole basis of his findings. And the findings of the Court of Appeal in *Peak v McKinney*, and *Dodd v Churton*.

[34] [1973] 2 AII ER 260

However it is noted that Keating on Building Contracts 5th edition 1991 states (footnote 46 on page 223), *"[1973] 1 W.L.R. 601 at 607 (H.L.) where the majority of the House of Lords said that Lord Denning had been wrong when, in the Court of Appeal, he said that* Dodd v Churton*…established that time became at large. The House did not comment on* Wells*…or* Peak*…which were cited to the House in argument…See also the discussion in* Bilton…". It is also noted that it does not appear (although this author does not have confirmation of that) that the House held that Lord Denning's implicit conclusion that time *was* at large was incorrect *per se*. Furthermore, without an effective mechanism to calculate some delay caused by the Employer, it's not clear how the Employer delay not covered by the extension of time clause could be measured (unless it's by a direct application of the penalty rule).

The issue was discussed again in the House of Lords in the much misunderstood case of *Percy Bilton Ltd v Greater London Council* (1982)[35].

The case involved a nominated sub-contractor. This was a procedure widely adopted in the 20th century, which provided for the Architect on behalf of the Employer, to effectively instruct the Contractor to use a specific firm for undertaking a certain element of the Works.

The parties in the *Bilton* case were using the JCT Standard Form of Building Contract 1963. There was no provision in the 1963 form for renominating in the event of a Nominated sub-contractor pulling out at any point, and no ground for extension of time listed in relation to some aspects of such an eventuality.

Part way through the project the NSC withdrew its labour, and shortly afterwards went into liquidation.The Contractor asked the Employer to nominate a replacement, which it did by instruction of the Architect. The 2nd NSC then withdrew before starting work, and the Contractor asked the Employer to nominate another NSC. NSC number 3 was appointed several months later.

The project finished late and the Employer charged the Contractor Liquidated Damages. The matter went to Court. The Employer lost. It was held at first instance that time was at large due to the delay caused by the withdrawal of the NSC.

The Court of Appeal reached an opposite conclusion. Sir David Cairns said, "*None of the cases support the proposition that the mere repudiation of the sub-contract by a nominated sub-contractor is to be regarded as a fault or breach of contract on the part of the employer…The duty to renominate…must…be a duty to renominate within a reasonable time…*"

The outcome was that the Court of Appeal implied a term to the effect that the Employer has a reasonable time to re-nominate where the Contractor has elected to accept the NSC's repudiation. To the extent that the Employer took longer than that reasonable time, the Contractor was entitled to an extension of time.

But the period immediately following the departure of the NSC (the reasonable time) was not a fault of the Employer, rather it was a neutral event (and therefore the responsibility of the Contractor unless otherwise stated). **Therefore no extension of**

[35] [1982] 1 WLR 794

time (because it was not given as a ground under clause 23), and no time at large (because it was not a matter that the Employer was at fault for).

Bilton appealed and it went to the House of Lords who came to the same view. Lord Fraser set out his reasoning in the context of the prevention principle (thank you so much Parris 2nd edition[36] 1982):

> "*The true position is, I think, correctly stated in the following propositions*
>
> *(1) The general rule is that the main contractor is bound to complete the work by the date for completion stated in the contract. If he fails to do so, he will be liable for liquidated damages to the employer.*
>
> *(2) That is subject to the exception that the employer is not entitled to liquidated damages if by his acts or omissions he has prevented the main contractor from completing his work by [the] completion date: see for example Holme v. Guppy (1838) 3 M. & W. 387..."*

It should be noted that this is looking at things from first principles. The explanation relates to a contract with no extension of time clause.

Lord Fraser continues (emphasis added),

> *"(3) These general rules may be amended by the express terms of the contract*.
>
> (4) *In this case, the express terms of clause 23 of the contract do affect* ***the general rule****. For example, where completion is delayed (a) by force majeure, or (b) by reason of any 'exceptionally inclement weather', the architect is bound to make a fair and reasonable extension of time for completion of the work. Without that express provision, the main contractor would be left to take the risk of delay caused by force majeure or exceptionally inclement weather under the general rule*"

In other words, by agreeing an extension of time for events which are NOT the fault of the Employer, rule 1 is affected because the main contractor is not now bound to complete by the date stated in the contract, to the extent that the neutral events expressly referred to in the contract, naturally extend the time required for completion.

> (5) Withdrawal of a nominated sub-contractor is not caused by the fault of the Employer, nor is it covered by any of the express provisions of clause 23….
>
> (6) Accordingly, withdrawal falls under the general rule, and the main contractor takes the risk of any delay directly caused thereby…"

The prevention principle does not apply, because the event which happened was a neutral event, and not something which was the Employer's fault or responsibility.

[36] "The Standard Form of Building Contract JCT80 Second edition" by John Parris

Furthermore, the parties did amend rule 1, but not so as to include this particular neutral event, so there is no extension of time either.

Looking at rule 3 in isolation, it appears to hold open the possibility that parties can contract out of the prevention principle via express terms. But the point that Lord Fraser is making, is that the parties can amend rule 2 by including an extension of time clause which governs events which are caused by the Employer. Just as it amended rule 1 by including an extension of time clause which governs certain neutral events.

It is noted that Lord Fraser states that the rules can be "amended" (in the manner which he sets out), not that they can be disregarded. Rather, the parties can amend the rules, so as to amend the effect of the principle. They can not contract out of the principle itself. He does not mean that the parties have the power to change the rule in *Holme v Guppy*.

The above would reflect the approach taken in Chitty on Contracts 25th edition 1983[37] Volume 1 General Principles, which provided the following: "*The parties may expressly provide that the contract shall ipso facto determine upon the happening of a certain event. But such a provision is subject to the principle that no man can take advantage of his own wrong, so that one party* ***will not be allowed to rely on such a provision where the occurrence of the event is attributable to his own default***" (para 1510, page 829) ***New Zealand Shipping*** cited

N.B. There is actually another way by which rule 2 can be disapplied, that is in respect of the rule in *Jones v St. Johns College Oxford* (1870)[38] (if that rule is still good) which provided that where there are very clear terms which do not contain any ambiguity, parties may enter into what is known as a 'absolute contract' under which *additional work* (but not other risks) may be added (and presumably omitted) as were contemplated by the contract, at the Contractor's risk as to time. According to Keating 5th edition, it has been held (Wells) that a term which for instance provides that the order of extra works, "*is not to vitiate the contract or the claim for penalties"*, was not clear enough to oust the effects of the prevention principle in favour of making the agreement an absolute contract . In other words, if an absolute contract is to be created, the wording must be absolutely crystal clear and expressly to that effect. This is also reflected in Chitty 25th edition:: "*Where, in a contract for the execution of specified works, it is provided that they shall be completed by a certain day, and* ***other work is ordered*** *by way of addition to the contract which necessarily delays the completion of the works in the time stated, it is a question of construction whether the original contract period applies to the completion of the original works whatever the additional work ordered or whether the contractor is exonerated from liability to complete the works within the time originally limited*" (para 1494, page 823) ***Jones v St John's College Oxford*** cited.

[37] Published by Sweet & Maxwell
[38] (1870) LR 6 QB 115

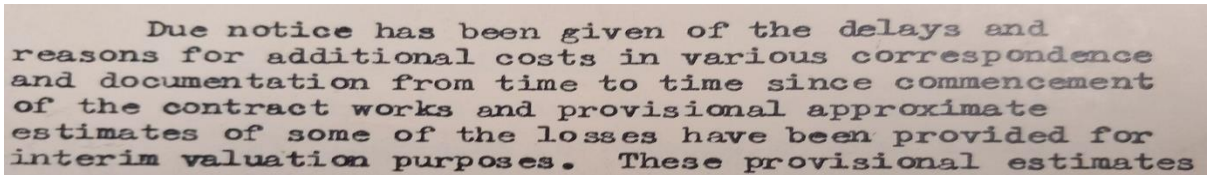
9. MEASURING EXTENSION OF TIME IN THE 20th CENTURY IN THE UK

A 1953 commentary[39] on the 1939 R.I.B.A. Standard Building Contract, (amended in 1948), records that a clause 18A was introduced to provide extensions of time where the Contractor is delayed due to shortages of labour or materials[40].

The third edition of *The Architect in Practice* by Arthur J Willis (1964), which was the Architect and Quantity Surveyor's leading practice text book in the 1950s and 1960s, does not mention extensions of time at all. It does however include a very brief review of cost claims in regards to which it states, *"The Architect will from time to time have claims submitted to him by the contractor for extras on the contract, the validity of which may seem doubtful to him…The architect has to remember that he has to interpret the contract fairly between the parties...Some claims may be due simply to misfortune...and which it may be reasonable for the building owner to meet ex gratia to a greater or lesser extent"*

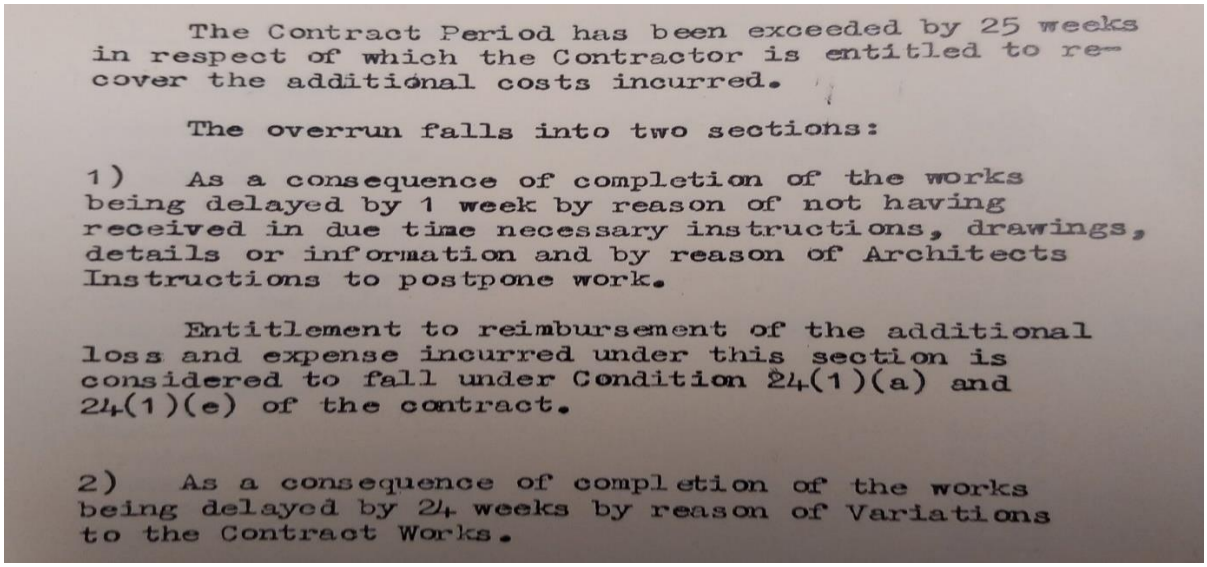
The 10th edition of Hudson's Building and Engineering contract, 1970, comprised of 871 pages. By now, 11 pages addressed issues relating to extensions of time. However, with a focus solely on procedure, none of the discussion considered the substance of assessments.

In the 1970s and 80s, Contractor's claims were dedicated to recovering costs. Claim documents in the 1970s were typically titled, "*Additional account for costs and expenses caused by prolongation of the Contract Works*" or similar. Reasons for delay might be dealt with by generic reference to correspondence. References to causes of delays in one 97 page claim from 1976, comprised of the following:



Due notice has been given of the delays and reasons for additional costs in various correspondence and documentation from time to time since commencement of the contract works and provisional approximate estimates of some of the losses have been provided for interim valuation purposes. These provisional estimates

…



The Contract Period has been exceeded by 25 weeks in respect of which the Contractor is entitled to recover the additional costs incurred.

The overrun falls into two sections:

1) As a consequence of completion of the works being delayed by 1 week by reason of not having received in due time necessary instructions, drawings, details or information and by reason of Architects Instructions to postpone work.

Entitlement to reimbursement of the additional loss and expense incurred under this section is considered to fall under Condition 24(1)(a) and 24(1)(e) of the contract.

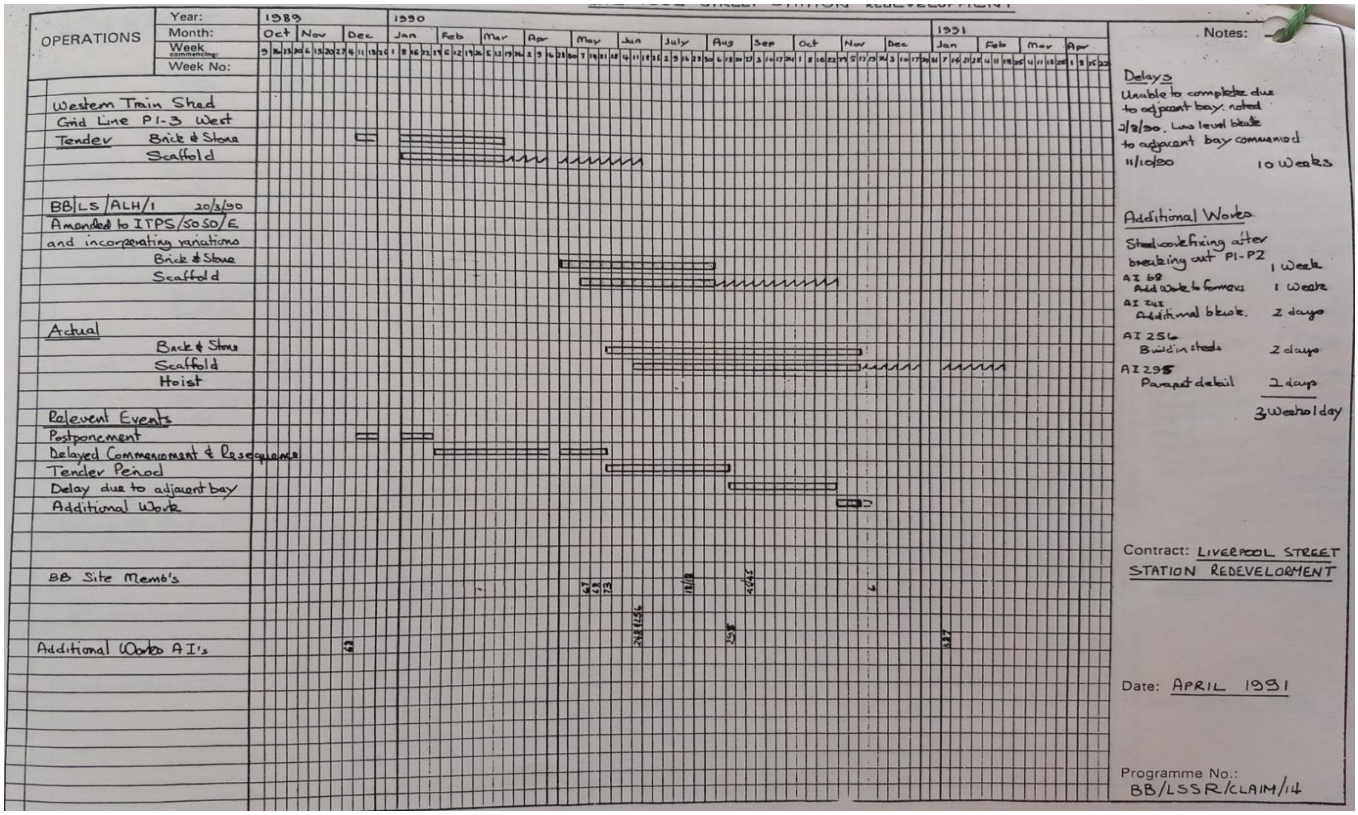
2) As a consequence of completion of the works being delayed by 24 weeks by reason of Variations to the Contract Works.

[39] The Standard Form of Building Contract, Derek Walker Smith

[40] 18A "*If in the opinion of the Architect…the Contractor shall be unable for reasons beyond his control to secure such labour and materials as may be essential to the proper carrying out of the Works and such inability on the part of the Contractor shall result in the Works being delayed, then…the Architect shall make…a fair and reasonable extension of time for Completion of the Works*"

That was it! The other 96 ¾ pages addressed the costs and the relevant contract clauses. For avoidance of doubt, this report does not advocate an approach to prolongation cost claims on this basis!

An Employer actually taking liquidated damages was apparently rare, and the focus remained on the extent to which the Contractor/Sub-Contractor had incurred additional costs. By the dawn of the 1990s, the approach had increased to a full written narrative within the claim documents, explaining the Employer delays, which might be supplemented with summaries such as included in Appendix B. The narratives and summaries would perhaps be accompanied by some hand written charts, or planned v As Built schedules[41]:



In a 1992 publication edited by the highly respected Mr John Uff[42], a Mr Richard Winward stated, "*In my experience disputes fall into one of two broad categories namely (i) disputes as to quality (including structural failure) and (ii) disputes as to price*". There was no mention of liquidated damages or extensions of time.

However, things were already changing, as Roger Knowles[43] observed in 1992 where he stated in a published paper[44] , "*Attitudes have undergone a significant change in recent years. On building contracts there used to be a fair degree of give and take, the overriding objective being to get the job finished on time. If, despite the best efforts of all concerned, completion was late, there was often a degree of understanding…Nowadays it seems that Employers are lying in wait for Contractors to finish late*".

[41] From a 1991 sub-contractor extension of time claim, prepared by claims consultants
[42] Legal Obligations In Construction
[43] Who was without rival, the most widely known and most respected construction claims practitioner in the UK and beyond during this period
[44] Recent Cases of Vital Importance to the Construction Industry, page 14

10. EARLY REFERENCES IN THE UK TO CRITICALITY

Although more widely recognised in the United States, and although undoubtedly already referred to in project management text books in the UK, critical path analysis was a term that was not recognised in the English *claims and law* text books until around the mid-late 1990s. Any prior reference to criticality in relation to delay claims looks odd to the eyes in today's light.

The author of this paper has been unable to find any reference to the critical path in Keating 5th edition *(1991)* for example. Simms[45] looked at claims in 1986 like this: *"If the 'exceptionally inclement weather' occurs at a **critical stage**, an extension of more than two weeks may, in fact be fair and reasonable; if it occurs at a **non-critical stage**, then no extension may be justified".* The word critical is used, but not in the context that we use it in the 21st century.

Trickey's[46] "*The Presentation and Settlement of Construction Claims*", 1983, looked at criticality in another way, stating with regards to the JCT80 form (page 242), "*in forming his view* (as to extension of time entitlement, the Architect) *will need to consider whether the delay is **on a critical element** and the effect of float in the Contractor's programme*".

The reader is then referred to page 30 of the book for more information, where it's stated, "…***the Architect is first required to form an opinion as to whether the delay is likely to affect (or has affected) the completion date. A simple delay in progress during the contract is not sufficient…it must be of such size or on such an element of the works as will have an effect upon the completion date***." The reader is then directed to a figure 2.4:

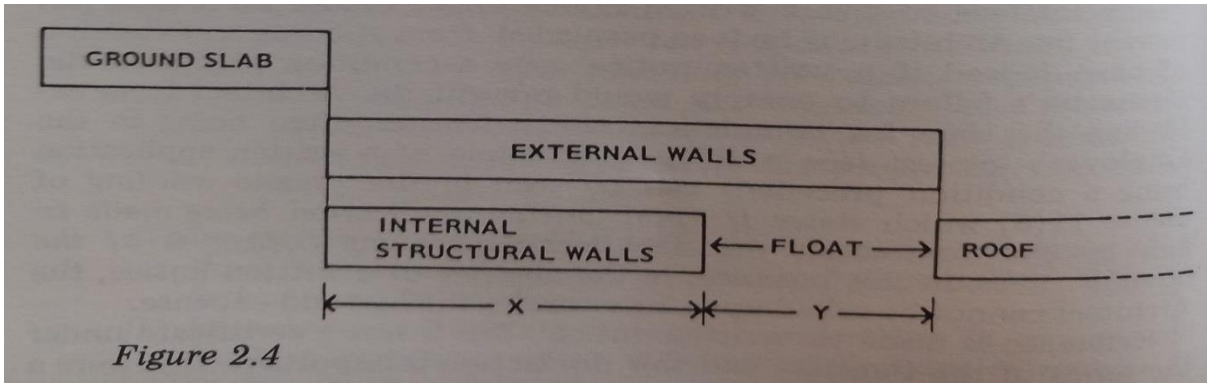


Figure 2.4

The following explanation is provided:

Example 2.4

Assume a Contract in which the roof to a particular building cannot be started until both the external walls and the internal structural partitions are completed, the latter taking less time to erect than the former (see Fig. 2.4). A delay to the internal partition at any point in the period marked X will not affect the Date for Completion until the float which occurs naturally at Y, has been fully eroded.

[45] Building Contract Claims, second edition, Powell-Smith & Sims, 1986
[46] Geoffrey Trickey was a Partner of Davis, Belfield and Everest (later Senior Partner of Davis Langdon)

The point made in Trickey is that in order to create entitlement, it's not enough for the directly affected activity to be delayed, but the delay must also use up all free float for that activity (period Y) and use up Total float ("*an effect on the completion date*"). There's no reference (expressly or implicitly) to a critical path in today's sense, or to what this report calls 'terminal float'.

11. DEVELOPMENT OF THE LAW AND INDUSTRY GUIDANCE IN THE U.K.

We already know that:

- In Dodd v Churton (1897)[47] Lord Esher and Lord Justice Chitty held that, "*if the building owner has ordered extra work beyond that specified by the original contract which has necessarily increased* ***the time requisite*** *for finishing the work, he is thereby disentitled to claim the penalties for non-completion provided by the contract*"
- In Wells v Army and Navy Co-op Society (1902)[48] ("*Wells*"), Vaughan Williams LJ, said, "*If in the contract one finds the time limited within which the builder is to do the work, that means not only that he is to do it within the time, but it means also that* ***he is allowed the time within which to do it***"

The dispute in the case of *Amalgamated Building Contractors v Waltham Holy Cross UDC* (1952)[49], heard in the Court of Appeal, involved the 1939 RIBA form of contract (the predecessor to the Joint Contracts Tribunal, commonly used in the UK in the 2nd half the 20th century and the 21st century). The case principally concerns a point of procedure, but it's interesting that Lord Justice Denning quoted from the letter awarding an extension of time, in which the Architect had stated (emphasis added), "***I can not see any reason why your whole contract should not have been completed by****…".* Such a method entails the aggregation of Employer risk events without reference to Contractor risk events. The approach was accepted without criticism by Lord Justice Denning[50]

in *Trollope & Colls Ltd v North West Metropolitan Regional Hospital Board (1973)*[51]:, Lord Denning said,"*It is well settled that in building contracts - and in other contracts too - when there is a stipulation for work to be done in a limited time, if one party by his conduct - it may be quite legitimate conduct, such as ordering extra work -* ***renders it*** *impossible or* ***impracticable for the other party to do his work within the stipulated time****, then the one whose conduct caused the trouble can no longer insist upon strict adherence to the time stated. He cannot claim any penalties or liquidated damages for non-completion in that time."*

The case of *Balfour Beatty Construction Ltd v Chestermount Properties* (1993)[52], ("*Chestermount*") presided over by Justice Colman, involved assessment of extensions of time in the JCT 80 Standard Building contract.

[47] 1 QB 562
[48] 86 LT 764
[49] 2 All England 452
[50] There was a slight restructuring of the damages and extension of time clauses in 1980, but commentators never appear to have attributed any significance to them, and in case Denning LJ's comment was general.
[51] [1973] 1 W.L.R. 601 (at 607)
[52] (1993) 62 BLR 12

The project involved the construction of the shell and core of a 7 story office block. The project was running late, and the Contractor didn't have an excuse. Then, after the completion date had passed, the Employer/Architect instructed a variation to undertake fit out works. The Contractor argued (in the alternative, its first argument having already failed) that the effect of the variation was to excuse it not only for the delay caused by the variation itself, but for all preceding delay up to that point, on the basis that on account of the timing of the variation, the project could not have been finished any earlier even if the Contractor had otherwise been in a position to finish as scheduled. The Contractor claimed an extension of time to cover all pre-existing delays.

Justice Colman held that such an approach was invalid (the only reason why the Employer instructed the additional fit out works in that case was because the Contractor's delay to the shell and core meant that it was still on site). In his reasoning he concluded that in regards to the JCT extension of time clause, ***"The underlying objective is to arrive at the aggregate period of time within which the contract works as ultimately defined ought to have been completed having regard to the incidence of non-Contractor's risk events*** *and to calculate the excess time if any, over that period, which the Contractor took to complete the works. In essence,* ***the architect is concerned to arrive at an aggregate period for completion of the contractual works, having regard to the occurrence of non-Contractor's risk events*** *and to calculate the extent to which the completion of the works has exceeded that period****."***

There seems to have been no reference in the *Chestermount* case, to a requirement for the Relevant Event to be on the critical path, indeed the citation above clearly provides that Justice Colman considered that there was no such requirement[53]. A critical path analysis does not calculate an aggregate period of time for non-Contractor risk events.

This seemed to be the same as Lord Justice Denning had assumed to be correct in the *Amalgamated Contractors* case under the 1939 form. The periods applicable to Employer risk events - including the original scope of works - had to be assessed and aggregated, with that aggregate period then being deducted from the actual performance period, pursuant to the LDs clause, to arrive at the overall total period of delay to the project to which Liquidated Damages might be applied, should the Employer require[54].

Simms 3rd edition[55] referred (on page 85) to, "*recent judicial opinion*" "…*that an architect should not take into account the contractor's own delays*". A footnote is given *to John Barker Construction Ltd v London Portman Hotel Ltd* 1996[56] ("*John Barker*"). The Judge in that case summarised the steps that an Architect needs to take in order to calculate extension of time. The author of this report does not have a

[53] Justice Hamblen makes an unsupported contrary assertion in Adyard v SD Marine (2011), but other judges have not done so.

[54] It's also worth noting that, as Justice Colman commented, it was confirmed in a case in the New South Wales Supreme Court (the approximate equivalent of the Court of Appeal), *Australian Development Corp Pty Ltd v White Constructions (ACT) Pty Ltd (1996)* that where a Contractor delay pushes the project into a bad weather window, there is no entitlement to EOT for the weather.

[55] Building Contract Claims, third edition, Powell-Smith & Sims, 1998

[56] [1996] 83 BLR 31

copy of this judgement, but there is no indication from any of the texts reviewed which cover the case, that any requirement was provided that delays need to be on the critical path. In fact the texts set out the tasks which the court in that case determined the Architect should take, and they do not mention the critical path.

In *Ascon Contracting Ltd v Alfred McAlpine Construction Isle of Man Ltd* (1999)[57], Judge Hicks reviewed the issue of float in a main contractor's programme, when assessing sub-contractors' extension of time entitlement. He said: *'Six sub-contractors, each responsible for a week's delay, will have caused no loss if there is a six-weeks' float. They are equally at fault, and equally share in the 'benefit'. If the float is only five weeks, so that completion is a week late, the same principle should operate; they are equally at fault, should equally share in the reduced 'benefit' and therefore equally in responsibility for the one week's loss.'*

The judge does not appear to regard float as being something that's allocated strictly on a first come first served basis, but should be shared. This doesn't appear to be the approach which critical path analysis takes.

But changes were afoot, as they sometimes are. To get some context, let's briefly step back a couple of years to 1996.

By the late 1990s, it was not atypical for construction projects to involve the use of computerised software for planning the works, and in some cases assessing delays. Such an approach was indeed recommended in *John Barker*. That case was of some importance, because the decision seems to have been possibly the first to question the Architect's decision, something which traditionally the industry had taken largely as gospel.

Eggleston[58] cites on page 144, the judge from the *John Barker* case as having stated, *"**If the Architect made his determination fairly and lawfully**…**I would not accept…that either party would be entitled in those circumstances to ask the court to substitute its opinion for that of the architect**. By lawfully, I mean acting within his power and properly directing himself toward the terms of the contract…".*

However, he went on to say that, "*Nor would I agree…that the grounds on which the decision of the architect can be challenged are limited to bad faith or manifest excess of jurisdiction* (when the architect) *was an agent of one party*[59]*".* The judge suggested (<u>for the benefit of the Contractor</u>) that in order to ascertain entitlement the following is required:

- A logical analysis in a methodical way
- A calculated rather than impressionistic assessment
- A fairly and rationally based judgment

The legendary "*Delay and Disruption in Construction Contracts*" by Mr Keith Pickavance, who would go on to play a guiding role in the Society of Construction Law's *Protocol on Delay and Disruption*, was published in 1997. It is understood[60] that the book advocated the use of critical path method for assessing extension of time entitlement, involving a prediction/calculation of the additional effect of an Employer delay event upon the date on which Practical Completion is achieved.

[57] [1999] 66 ConLR 119
[58] Liquidated Damages and Extensions of Time In Construction Contracts, 2nd edition, Brian Eggleston 1997
[59] The question of whether the Architect is the Employer's agent in JCT is beyond the scope of this paper.
[60] The book is no longer available, even in British Library

Eggleston wrote the same year, **"*The analysis of causation…remains relentlessly attractive to academics…In the construction industry, the study of causation and the application of computers to the process is a thriving business*".**

In the case of *Henry Boot Construction (UK) Ltd v Malmaison Hotel (Manchester) Ltd (1999)*[61] *("*Malmaison*")*, the Judge began by explaining that certain matters were NOT in dispute between the parties, including that both parties accepted that the approach taken by Colman J in *Balfour Beatty v Chestermount Properties*.

Justice Dyson called Justice Colman's interpretation of clause 25 "valuable" and summarised the result as being that, "*The Completion Date as adjusted was not the date by which the Contractor ought to have achieved Practical Completion, but the end of the total number of working days starting from the date of possession within which the contractor ought fairly and reasonably to have completed the works."*. It is submitted that this is an excellent summary of Justice Colman's conclusion.

He however went on to say that in relation to an extension of time claim which had been received, "*The negative defence* (open to the Employer is that) ***the activities were not on the critical path, and on that account did not cause delay***.". This appears to be the first time in which a critical path requirement was stated in English law in relation to extension of time entitlement[62].

It's noted however that there is no discussion on the "*critical path*" at all within the *Malmaison* judgement. Rather Justice Dyson states – completely out of the blue - that it is a requirement that the Relevant Event must be on the "*critical path*" to create entitlement. He doesn't give any definition of what he considers the critical path to be, and taken in the context of the then fairly recent historical references to the term, for instance's Trickey' description of a "*critical element*", it's suggested that it's not impossible that the judge had in his contemplation a path not to completion of the works (the critical path with which we are familiar today), but to the then existing Completion Date, i.e. simply a reference to total float rather than terminal float. **If this is what he was referring to, then this would merely represent the status quo.** We don't know.

The case of *Royal Brompton Hospital NHS Trust v Frederick A Hammond & Others* (2000)[63] ("*Royal Brompton*") involved a professional negligence claim in which it was asserted that the Architect had been negligent in awarding too much extension of time. Justice Seymour held there had been no negligence.

Justice Seymour stated that,

> *"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****"*

and

[61] (1999) 70 Con LR 32
[62] A 1995 Singapore judgement also required a critical path analysis, and there are various judgements in the US which had taken the same approach
[63] [2000] EWCH Technology 39

> *"it is not open to me myself to decide what activities were or were not **critical to the completion of the Works as a whole**."*

Both of these statements are possibly in line with a total float approach (as defined in this paper in section 5).

There are statements later in the judgement however in which Justice Seymour is clearly talking about criticality in a terminal float sense, but this is after he recognises that the expert witnesses appointed by both parties took this approach. This paper does not state that Justice Seymour was against the critical path approach, but at no point in the judgement does he state that it is the correct approach to take in law, or per the JCT contract. **In any case there is again certainly no contractual reasoning as to why the Relevant Events would need to be on the critical path to actual completion to create entitlement.**

It's also worth noting that when discussing criticality, the judge and the experts referred to items such as, "Wall and Floor Finishes" as a single activity. At this level of specificity, the distinction between a total float and terminal float approach to criticality may have been academic.

The requirement for a critical path analysis was reiterated in *Balfour Beatty Construction Ltd v The Mayor and Burgess of the London Borough of Lambeth (2002)*[64]*.* Justice Lloyd (who was at one point President of the Society of Construction Law) said that for an extension of time claim to succeed, *"A valid critical path (or paths) has to be established both initially and at every later material point since it (or they) will almost certainly change…"*

The judge criticised the fact that the claimant, *"and its claims consultants…decided that..it was unnecessary to determine a constantly changing critical path."*

He said that the Contractor had to demonstrate with "certainty" that the dry lining was on the critical path.

Still no justification was provided as to why a critical path analysis was required, and still no judicial definition of what the critical path is, although, it would be impossible to reasonably argue that the reference to the critical path above could be taken to be given a meaning other than the modern meaning, and this paper accepts that this was a finding that a critical path analysis showing the effect of delays upon the forecast date of actual completion/the longest path was required.

The decision could in one sense be seen as having paved the way for the Society of Construction Law's Protocol on Delay and Disruption later that year, which at the time was undergoing consultation with the construction industry, and which favoured a prevention approach.

In October 2002, the Society of Construction Law published the (1st edition of the) Protocol on Delay and Disruption. The SCL provides a definition of "critical path" (something that had been missing from the judgements), as follows: *"The sequence of activities through a project network from start to finish, the sum of whose durations determines the overall project duration. There may be more than one critical path depending on workflow logic. A delay to progress of any activity on the critical path*

[64] [2002] EWHC 597 (TCC)

will, without acceleration or re-sequencing, cause the overall project duration to be extended, and is therefore referred to as a 'critical delay".

The next case, also in October 2002, is again Justice Lloyd. But the judgement reads more like one of Justice Seymour's, to the extent that this author wonders whether Justice Seymour – who had been involved with the overall dispute two years earlier – played a role in it.

A natural progression from the position set out in the 1999 *Ascon* case regarding float, was explained by Justice Lloyd in his decision in the latest in a saga of cases between Royal Brompton and Hammond and others. **For sake of clarity, this case will be referred to in this report as "*Hammond 2002*"[65].**

At paragraph 246, Justice Lloyd states, *"What is required is to track the actual execution of the works… if there is then unused float for the benefit of the contractor (and not for another reason such as to deal with p.c. or provisional sums or items), then the architect is bound to take it into account since an extension is only to be granted if completion would otherwise be delayed beyond the then current completion date."* ***"...The architect should in such circumstances inform the contractor that, if thereafter events occur for which an extension of time cannot be granted, and if, as a result, the contractor would be liable for liquidated damages then an appropriate extension, not exceeding the float, would be given. In that way the purposes of the clause can be met: the date for completion is always known; the position on liquidated damages is clear; yet the contractor is not deprived permanently of "its" float"***

Again, this appears to be contrary to what a critical path analysis would provide for. Yet Justice Lloyd had approved of a rigorous critical path approach earlier in the year, in the Lambeth case.

He mentions the critical path again in this case, but seems to take a far more relaxed attitude, stating for example:

> *"one could not know to what extent any such float survived. In my view no float was or could therefore be established. Its existence was speculation"* (para 121)
>
> *"*(it was accepted that) *there were two paths, one for the M&E and the other for the building work which at some point would come together* (para 222)
>
> *"…**the employer is ultimately entitled to the benefit of any unused float that the contractor does not need…In practice however architects are not normally concerned about these points and may reasonably take the view that, unless the float is obvious, its existence need not be discovered."*** (para 246)
>
> *"*(Contractor's) ***difficulties…were known but unquantifiable except as a matter of judgment…That is one of the reasons why construction contracts appoint…architects, engineers, surveyors or other contract administrators…as they are best able to gauge such matters…To upset***

[65] Royal Brompton Hospital National Health Service Trust v Hammond & Others [2002] EWHC 2037 (TCC)

> ***the judgments of such people in an arbitration or litigation requires similar first-hand evidence, not desk studies based on documents****"* (p249)
>
> *"I cannot be really confident about the extent of actual delay that was caused to* (the Contractor)*….That said, it is inconceivable…that the delay in issuing the co-ordination drawings…did not cause significant delay and disruption to* (the Contractor)*. (the drawings) ought…to have been ready by mid-June 1987 at the latest so when they were issued …they were 8 weeks late. …the question is whether they exceeded the float so as to have caused* (the Contractor) *to have finished late, even if there had been no other delaying events. That is unresolved and it seems unlikely. Doing the best one can, the potential critical delay created by the eight week delay in issuing the drawings…appears not to have been materially averted or overtaken by other events for which* (the Contractor) *was responsible."* (para 265)

An Architect in 2022 might not consider this to be good practice, but save for the references to the critical path, this seems generally how extension of time *should* be assessed. It seems incredible that this easy going approach, which could be something out of a Justice Seymour judgement, is the same judge as gave the *Lambeth* judgement only a few months earlier, which required the critical path to be established with "*certainty*", and tore shreds off an adjudicator for issuing a well reasoned decision. It seems to take a different approach to delay analysis than that case entirely. Certainly (like all other judgements of the era) it doesn't envisage the kind of detailed forensic investigation often undertaken in 2022.

The author of this paper has not read the judgement of Justice Wilcox in *Skanska Construction UK Ltd (formerly Kvaerner Construction Ltd) v Egger (Barony) Ltd (2002)*[66], but it is understood that the judge did NOT favour the critical path approach, and criticised the Employer's delay expert Mr Pickavance. It is understood that the judge said that, "***He only directly considered critical delay***", and added, "*It is evident that the reliability of Mr Pickavance's sophisticated impact analysis is only as good as the data put in.* ***The court cannot have confidence as to the completeness and quality of the input into this complex and rushed computer project***"

The author of this paper has not read the judgement of Justice Wilcox in *Great Eastern Hotel v.John Laing Construction (*2005)[67], however it is understood that the judge this time **did** require a critical path approach. We aren't privy to what had changed his mind since 2004.

The author of this paper has not read the judgement of Justice Ramsey in *London Underground v. Citylink (2007*)[68] but it is understood that the judge did NOT favour the critical path approach. It's understood that the contract involved terms which were similar to those used in JCT and that the judge said, "*whilst analysis of critical delay by one of a number of well known methods is often relied on and can assist in arriving at a conclusion of what is fair and reasonable, that analysis should not be*

[66] [2002] EWCA Civ 1914
[67] [2005] EWHC 181 (TCC)
[68] [2007] EWHC 1749 (TCC)

seen as determining the answer to the question. ***It is at most an area of expert evidence which may assist…***".

The author of this paper has not read the judgement of Justice Toulmin in *Mirant Asia-Pacific Construction(Hong Kong) Ltd v.Ove Arup &Partners International Ltd* (2007)[69] which focused mainly on other issues, but it is understood that the judge favoured a critical path approach.

In the Scottish case of *City Inn v Shepherd (2010)*[70], Lord Osborne's leading judgement held that, "*while a critical path analysis, if shown to be soundly based, may be of assistance, the absence of such an analysis does not mean that a claim for extension of time must necessarily fail."*, The court actually rejected the Employer's critical path analysis in favour of a "common sense" assessment made by the Contractor. It is submitted that a common sense approach and a terminal float approach are incompatible.

Lord Carloway gave a dissenting judgement, due to a difference in relation to the position on the related issue of concurrency. On both concurrency and criticality, he appeared to effectively re-state the *Balfour Beatty v Chestermount* position, holding that,***"…the delay caused by the Contractor…is irrelevant so far as the contractual exercise in concerned. That exercise does not involve an analysis of competing causes. It involves a prediction of the Completion Date taking into account that originally stated in the contract and adding the extra time which a Relevant Event would have instructed, all other things being equal"***..*"If a Relevant Event occurs (no matter when), the fact that the Works would have been delayed, in any event, because of a contractor default remains irrelevant."*

In *Adyard Abu Dhabi v SD Marine Services* (2011)[71], Justice Hamblen discussed an issue which he referred to as concurrent delay, and applied the concurrency authorities to it (as above), but he appeared to apply the principles to – what this report considers to be the separate and wider issue of – critical delay. Part 5 and Appendix E of this report concludes that his finding was that Relevant Events need to cause critical delay, albeit with a potential apparent derogation from that principle (what Justice Hamblen appears to have interpreted as true concurrency).

Interestingly (although curiously the case involved a shipping contract), Justice Hamblen held that in JCT and similar contracts, "*the works are defined by reference to…programmes*", and therefore the critical path principle would apply. But **he suggested that in other contracts where the work was not so defined, then the critical path would not apply**.

Well, this report suggests (See section 23), effectively, that the Works may not be so defined by programmes in JCT contracts. It's worth noting, that as stated in section 23 of this report, in *Pigott Foundations Ltd v Shepherd Construction Ltd (1993)* the judge relied upon a Court of Appeal authority to find that even in a contract which:

- included a requirement for the sub-contractor to undertake its works reasonably in accordance with the progress of the main contractor's works

[69] [2007] EWHC 918 (TCC)
[70] [2010] ScotCS CSIH 68
[71] [2011] EWHC 848 (Comm)

- required submission of a sub-contract programme

the sub-contractor was entitled to plan and perform the sub-contract work as it pleased, provided it finished within the time fixed for the sub-contract. Multiple similar authorities are cited in section 23. It's also difficult to see how the point is relevant.

Walter Lilly & Company Ltd v (1) Giles Patrick Cyril Mackay (2) DMW Developments Ltd (2012)[72] ("*Walter Lilly*" / "*Lilly v Mackay*") was presided over by Justice Akenhead, who stressed that the English position was that, *"**One needs to consider what critically delayed the Works as they went along**".* He gave an example in which item A will always take 20 weeks to complete and where item B will always take 10 weeks. He stated that even if item B takes 19 weeks it will not affect the actual time to completion, unless the delay to item B itself delays item A or some other item further down the critical path.

In 2017, the Society of Construction Law issued the 2nd edition of their Protocol on Delay and Disruption, which repeated the critical path approach.

Justice Edwards-Stuart, the judge from the De Beers case in 2010, appeared again in *Fluor v Shanghai Zhenhua Heavy Industry Co, Ltd* (2018)[73]. This time, although he rejected a retrospective methodology to assessment of delay, he stated that, "*the correct approach*" to EOT was a prospective assessment of the critical path.

In *Thomas Barnes & Sons PLC (IN ADMINISTRATION) v Blackburn with Darwen Borough Council (2022)[74],* Justice Davies said, "*It must be borne in mind that the common objective…is to enable the assessment of the impact of any delay to practical completion caused by particular items on the critical path to completion*". *were planned and as they were delayed and caused delay*".

He proceeded throughout the judgement by reference to the critical path.

However, his understanding of the critical path, appears to be that an activity is on the critical path if it is a predecessor to a later activity on the critical path, irrespective of whether it has float.

The commencement of the "SBS finishes" were dependent dually upon completion of the roof coverings by the Contractor and by the concrete topping by the Contractor. However the concrete topping could not be completed until repairs had been undertaken in defects to the structural steelwork, for which the Employer was responsible.

On this basis alone, Justice Davies appears to have concluded that where both the roof coverings activity and the structural defect issue were ongoing, they were concurrent causes of critical delay.

This was essentially the Employer's argument, i.e. that until the roof coverings were complete they were on the critical path. Upon completion, only the steel work path remained critical.

This notwithstanding the Contractor's expert pointing out that "*when I did look at the roof coverings and when they completed, on the photographs I could see that the SFS walls to the first floor were not completed. So even if the roof is done, you can't start any finishes because of the SFS, therefore the roof coverings were not critical*".

[72] [2012] EWHC 1773 (TCC)
[73] [2018] EWHC 490 (TCC)
[74] [2022] EWHC 2598 (TCC)

Justice described this as being, "*a very neat explanation of his approach, which was to work backwards from the as-built critical path and, because the hub SFS were finished after the roof coverings, to treat the hub SFS as on the critical path and to discount the roof coverings as even being on the critical path from the outset*."

The judge seems to have taken a prospective approach and found that had it not been for the steelwork, the roof coverings would have been on the critical path, and on a prospective basis remained so thereafter. No evidence though appears to be provided that this was the case, and in fact the judge effectively appears to agree with the Employer's expert on the matter where he argues that the roof coverings remained critical until the were completed, at which point the (completely unconnected) ongoing steelwork repair issue became critical until such time as it was resolved. This approach seems unsustainable in logic.

The reality is that the judge does not seem to take a critical path approach at all, but proceeds on the basis that if something has to be done at some point then it's on the critical path.

It probably does actually provide for an outcome which this paper considers to be appropriate, but the logic and explanation of how that outcome has been arrived at appears unsatisfactory.

An attempt to summarise the cases is provided in tables below.

12. TABULATED SUMMARY OF CASES

CRITICAL PATH NOT APPLICABLE

Case	Year	Court	Contract	Held
Dodd v Churton*	1897	C of Appeal		"time requisite"
Wells v Army and Navy Co-op Society*	1902	C of Appeal		
Amalgamated Building v Waltham Holy Cross UDC*	1952	C of Appeal	RIBA 39	But for
Trollope & Colls v NWMR Hospital Board*	1973	C of Appeal		
Balfour Beatty Construction Ltd v Chestermount Properties *	1993	High Court	JCT 80	But for
John Barker Construction Ltd v London Portman Hotel Ltd*	1996	High Court	JCT 80	But for
Ascon Contracting Ltd v Alfred McAlpine Construction Isle of Man Ltd	1999	High Court	JCT	But for
Skanska Construction UK Ltd (formerly Kvaerner Construction Ltd) v Egger (Barony) Ltd *	2004	High Court	JCT	But for
London Underground v. Citylink	2007	High Court	Similar to JCT	But for
City Inn v Shepherd (DISSENTING)	2010	Scottish Inner House	JCT	But for

UNCLEAR ON WHETHER CRITICAL PATH APPLICABLE

Case	Year	Court	Contract	Held
Henry Boot Construction (UK) Ltd v Malmaison Hotel	1999	High Court	JCT 80	Meaning of "critical path" unclear
Royal Brompton Hospital NHS Trust v Frederick A Hammond & Others	2000	High Court	JCT 80	Followed the position taken by the experts.
"Hammond 2002".	2002	High Court	JCT 80	Conflicting comments
City Inn v Shepherd (MAJORITY)	2010	Scottish Inner House	JCT	*"a critical path analysis…may be of assistance."*
Adyard Abu Dhabi v SD Marine Services	2011	High Court	Ship building	where, "*the works are defined by reference to…programmes*"
Thomas Barnes v Blackburn with Darwen Borough Council	2022	High Court		Refers to critical path but seems to take another approach

PROSPECTIVE CRITICAL PATH ANALYSIS REQUIRED

Case	Year	Court	Contract	Held
Balfour Beatty Construction Ltd v The Mayor and Burgess of the London Borough of Lambeth	2002	High Court	JCT 80	*"A valid critical path (or paths) has to be established both initially and at every later material point"*
Great Eastern Hotel v.John Laing Construction *	2005	High Court	JCT	
Walter Lilly v Giles Patrick Mackay	2012	High Court	JCT	*"One needs to consider what critically delayed the Works as they went along"*
Fluor v Shanghai Zhenhua Heavy Industry Co, Ltd	2018	High Court	JCT	

RETROSPECTIVE CRITICAL PATH ANALYSIS REQUIRED

Case	Year	Court	Contract
Mirant Asia-Pacific Construction(Hong Kong) Ltd v.Ove Arup &Partners International Ltd *	2007	High Court	JCT
Northern Ireland Housing Executive v Healthy Buildings (Ireland) Ltd [2017]*	2017	High Court	NEC

*Judgement not read

Note: There may be other cases not included in the analysis.

Saga Cruises v Fincantieri (2016) is excluded because there was no extension of time clause, and the judge's assessment was limited to which party's scope the last item to be completed fell within.

THE WRONG PATH

PART 3

A FURTHER LOOK AT CRITICAL PATH ANALYSIS:

PRACTICAL AND CONCEPTUAL PROBLEMS

13. THE EVIDENTIAL BURDEN OF CRITICAL PATH ANALYSIS

Justice Seymour stated in *Royal Brompton (2000)*: *"**What I cannot do, as it seems to me, is to substitute my own view for that of a professional person of the appropriate discipline on any matter in respect of which any special skill, training or expertise is required to make an informed assessment**. Thus, in the present case, as it seems to me, it is not open to me myself to decide what activities were or were not critical to the completion of the Works as a whole."*

Justice Lloyd made a similar point in *Hammond 2002*. However he seemed to take a different approach in the Lambeth case earlier that same year.

The Seymour approach appeared to contrast with Justice Akenhead's findings in 2012, where he stated in the *Walter Lilly* case that, "*Ultimately it must be for the court to decide as a matter of fact what delayed the works and for how long*". Justice Akenhead's approach represents what has been an increasing trend of the court to step into the shoes of the Contract Administrator.

Approaches have also endeavoured (seemingly without success) to become more precise. Simms 2nd edition[75] pointed out that, *"the Architect is required only to estimate the length of the delay and not to ascertain it; the Architect must make an approximate judgement".* In *John Barker Construction Ltd v London Portman Hotel Ltd* (1996) however the judge required:

- **A logical analysis in a methodical way**
- **A calculated rather than impressionistic assessment**

And this was just the start of things. Analyses are undertaken today of vast complexity, seemingly completely out of all proportion to the underlying task.

We mentioned in an section 3, that one of the requirements of a fit for purpose extension of time clause, is that it must be straightforward for the Contractor to demonstrate its entitlement.

In terms of the burden of proof, Justice Seymour stated in *Royal Brompton, "**In the absence of clear evidence that the safety cabinets were not on the critical path**, I do not feel able to conclude that no reasonably competent architect could possibly have thought that they were."*

Justice Lloyd in *Balfour Beatty v London Borough of Lambeth* (2002) took a different view, holding that, *"…any inaccuracy in determination will cut both ways…I must make my own determination on the basis of the papers before me and **on the balance of probability**."*

He even went on to say that, *"Dry lining was the largest element in the adjudicator's assessment so its place on the critical path needed to be **established with certainty**".*

Similarly, Justice Akenhead stated in *Walter Lilly*[76] that, *"The court or arbitrator must decide **on a balance of probabilities** what delay has actually been caused by such Relevant Events as have been found to exist".*

[75] Building Contract Claims, second edition, Powell-Smith & Sims, 1988
[76] Walter Lilly & Co Ltd v Giles Patrick Cyril Mackay (2012)

Yet the Contractor does not want and can not be satisfied with something "*cut both ways*" "*on the balance of probabilities*", rather it wants and it should be given ALL of its extension of time entitlement. Not some kind of rough justice settlement (see section 3).

And various issues highlighted by Justice Seymour in his judgement, including where he referred to "*various methods of making an assessment*", are precisely why a "*balance of probabilities*" test together with a critical path approach, can not be a suitable solution. The Society of Construction Law's guidance ("Society of Construction Law Delay and Disruption Protocol 2nd edition" 2017) approves **11 different methods of critical path assessment**[77]. Whilst the SCL recommend that experts should endeavour to agree a method, the impact upon the Contractor's mission to prove entitlement on the balance of probabilities is obvious.

And whilst Justice Akenhead intuitively observed that in theory prospective and retrospective approaches should generally provide the same result (presumably by making appropriate adjustments for mitigation etc), anecdotal evidence suggests that it is *hardly ever* the case the delay experts agree. As Justice Seymour observed, "***the various different methods of making an assessment of the impact of unforeseen occurrences upon the progress of construction works are likely to produce different results, perhaps dramatically different results****…".* On top of that is the inevitable "inaccuracy" (described in section 14 overleaf, and which Justice Seymour also referred to) of *any* of the approaches a critical path analysis.

The illusion of the modern techniques of Critical Path Analysis, it could be argued is that they provide ever greater certainty. The reality is, it could also be contended, that it provides a greater level of detail of uncertainty.

Indeed, on many projects it could be said that there are almost open ended possibilities for an Employer to argue that an Employer delay event is not on the critical path. **In terms of burden of proof, this appears to be wholly unreasonable and unsatisfactory.**

[77] impacted as-planned analysis, time impact analysis, time slice analysis, as-planned versus as-built windows, retrospective longest path analysis, collapsed as-built, project wide retrospective as-planned versus as-built, time chainage analysis, line of balance analysis, resource curve analysis and earned value analysis.

14. PRACTICAL PROBLEMS WITH CRITICAL PATH ANALYSIS

Section 14 addresses critical path analysis generally, and section 14A addresses particular problems with retrospective critical path analysis.

These are summarised as follows:

- 14.1 Critical path analysis disregards entitlement (See also 14A.2, 14A.3)
- 14.2 Identifying the critical path is problematic
- 14.3 Problems with baseline programmes
- 14.4 Failure of sequential updates to pick up moment of criticality
- 14.5 The intangible effect of non-critical activities on the critical path
- 14.6 Critical Path Analysis makes resource availability assumptions
- 14.7 Lack of credit for acceleration
- 14.8 Effect of mitigation/acceleration on criticality
- 14.9. Time ownership on a construction project
- 14A.2 Failure to pick up acceleration, mitigation and culpable delay
- 14A.3 Contractual entitlement missed if not assessed at the time
- 14A.4 Effect and cause methods of analysis may not accord with contracts
- 14A.5 CPA is essentially a planning tool

Please see Appendix C for fuller explanations.

15. DOES CRITICAL ANALYSIS PROVIDE ANY BENEFITS?

The judiciary never seem to have provided any explanation at all for the adoption of a critical path approach. The judgements don't give any indication that any justification has ever been provided to them by experts, rather that the experts suddenly started telling the court at some point in the late 1990s, that that's how they did it.

15.1 **Reasons given by the SCL?**

In the 2nd edition of their Protocol, the Society of Construction Law state that, "*From a practical perspective, the analysis of the effects of the delay events is simpler if it considers only those events that will result in Delay to Completion (rather than a consideration of all events in the programme) so that the grant of an EOT follows the outcome of the critical path analysis*."

And this seems to be about the closest anybody has got to providing an explanation. But it's submitted, it misses the point. The alternative to a Critical Path Analysis, isn't a consideration of all events in the programme, it's a consideration of the effect, other things being equal, which the Employer risk events which transpire, would have on the original Date for Completion (or equivalent) stated in the contract. It's a vastly more simple exercise, as is self-evident from the explosion in demand for delay analysts since modern approaches to criticality and concurrency were introduced.

The SCL also states, "*Typically delay analysis requires the identification of the critical path(s) to the completion date because delays which impact the completion date must, by definition, reside on the critical path."*

But again, as demonstrated in this report, the contention is not accurate. Delays to the Completion Date do not only include delays which further defer the date of Practical Completion. Delays to the planned date of completion only include delays which are on the critical path, but not delays to the Completion Date.

Saying that a method must be used to calculate the effect on the end date, because otherwise the parties wouldn't be able to calculate the effect on the end date, is not a demonstration as to why the parties need to calculate the effect on the end date.

As Justice Colman said, the task is to aggregate number of days representing Employer risk events beyond the Date for Completion.

So what other legitimate interest could there be?

15.2 Relationship with LD clause?

The liquidated damages clause which works in conjunction with an extension of time clause, is included (in part) so that the Employer does not have to demonstrate its actual losses if the Contractor breaches its obligation to complete the works on time. The Employer further benefits from such a clause, because it enables Contractors to price the works on a level playing field without speculating as to what actual losses the Employer might suffer as a result of a delay, which could severely distort tenders and result in the Employer paying for the risk of its own potential actual losses, which may or may not actually eventuate, if indeed Contractors were prepared to tender at all.

But the Employer could simply include a cap on damages to serve the same purpose. And in any event, an LDs clause can be included without including a critical path clause. LDs can quite easily be included simply to cover the period of delay for which the Contractor was solely responsible, as should be the case.

15.3 Timely completion of the Works?

Perhaps another conceivable legitimate interest could be that the provision serves to aid the timely completion of the Works?

But the inclusion of a clause which entitles the Employer to take damages in respect of periods for which both were responsible, does absolutely nothing to improve the time in which the Works are completed.

Why would the project possibly finish earlier because the Contractor had to pay damages for periods of delay jointly caused by both parties? Take away the contractor element of the delay (or take away all of the contractor delay if you like), and the employer delay remains unchanged, and (to the extent of what was previously delay jointly caused by both parties) so does the date on which the project is actually completed.

The only way in which the project could potentially be sped up by such a mechanism, is if the Contractor was told that it if it doesn't find a way to make up the time lost by the Employer, then it has to pay damages to the Employer for the Employer's own delay. The Employer in that case could, it is suggested, cause

endless delay and receive an income for it from the Contractor. It is submitted that this is not a legally valid approach (see Appendix A).

The fact is that a critical path analysis clause can not speed the project up (save to the extent that the parties are entitled to agree that the Employer may rely upon or benefit from its own wrong). **In fact, the reality is that the opposite is very likely true, and critical path analysis slows projects down.**

One leading QC, in his interpretation of the *Adyard* case, has suggested that the Contractor is not entitled to an extension of time if "*a major variation….is ordered 10 minutes after it becomes apparent that a Contractor will suffer its own delay*" and that, "*In some situations this can – and does – lead to a "reverse race", holding off delay events, or hiding them, until they can be revealed after a delaying event by the other party has started*." He says that this provides "*the certainty but very rough justice of a purely logical approach*"[78].

This would not only be rough justice, but it would be no justice at all. But in regards to the question of legitimate interest, it makes it clear that such clauses (implied or express) are slowing projects down, not speeding them up, because the guidance given to the industry through the judiciary and other sources has led to the absurd situation of the parties holding off on issuing and complying with variation instructions depending on when they think there are concurrent periods of delay, or whether and when an Employer delay event is on the critical path.

Furthermore, the ability to hide behind the difficulties Contractors have in demonstrating fair entitlement to extension of time, more than likely makes Employers themselves less focused on delivering their own inputs into the project in a timely fashion, safe in the knowledge that a delay analyst will be able to find a way to blame the Contractor at the end of the day.

Furthermore, the habit of contract administrators taking a wait and see approach as a result of modern guidance on extension of time assessment including the critical path approach (see section 14A.3), means that the Contractor can not plan the project properly and as it ought to be able to do, on account of the fact that in the absence of an assessment by the contract administrator, it effectively does not know effectively what its completion obligations is. How then can it plan effectively?

All of this appears to be born out in statistics, which indicate no trend of projects speeding up since the approaches to delay analysis discussed in this paper were introduced (as seems inevitable). The percentage of projects completing on time was no higher by the end of the 1st decade of the century, than it was in 2001, the year before the 1st Protocol on Delay and disruption[79]. In 2001, some 59% of sampled projects in the UK finished on time or better. By 2009, after 8 years of the terminal float critical path approach, that figure had changed to….59%. By 2015, the figure had reduced to 40%[80]. Albeit undoubtedly also affected by other factors, compare

[78] citation lost – the article appears to have been removed, however the logic that this must reflect actual practice is self-evident)

[79] http://constructingexcellence.org.uk/wp-content/uploads/2014/10/Industry_Performance_Report_2009.pdf (p33)

[80] https://www.architectsjournal.co.uk/archive/almost-two-thirds-of-projects-were-late-in-past-12-months

that to now, "*Analysis of pre- and mid pandemic projects in the nPlan schedule dataset suggests that nearly nine in 10 large-scale construction projects (85.5%) are delivered late*"[81], in other words, only 14.5% of projects are on time.

15.4 **A helpful management tool?**

Similarly, this document suggests that it would not be true to say that a critical path provision acts as a useful management tool. If detailed programming requirements were thought to aid the project, then they could be imposed on the contractor without linking them to delay damages. In fact, it is suggested that most construction contracts do not link programme requirements to entitlement to liquidated damages. But **either way, effective program management does not need the Contractor to be penalised for periods of sub-critical delay.**

Although it's arguably slightly off topic, in fact this author questions the merits of such approaches to contracting in any case. The attraction of ideas such as NEC's early warning meetings and risk registers do seem sensible, and indeed the idea of both parties contributing towards notifications etc. may indeed point the way forward as well in respect of extensions of time.

But the benefit of an obligation to constantly re-submit programmes for approval is questioned. If I'm having a package delivered by courier, I don't demand that the courier gives me an update every time he changes plans in his journey, or every time he hits traffic. I don't require him to have his route approved by me at every step of the way. If I did this, it would deprive him of his drive and determination to deliver the package. It would turn him from a determined deliverer racing to meet his deadline, into a tired performing circus animal. A clock watching task ticker. And this author suggests that such approaches to contracting may to some extent have a similar effect on the Contractor. If the parties want the Architect to be available for consultation by the Contractor at his option, then fine, no problem with that. But where is the benefit in making it an obligation to get programming constantly approved, when the Contractor has already accepted and taken on board the risk of completing on time?

The approach seems to risk taking away what has been arguably the main benefit in appointing a general contractor since the development of this contracting model in the late 19th century[82], namely to independently plan and perform the works.

One has to ask what is the point in appointing a general contractor in a model like this? What does the Contractor do, other than accept the burden of unreasonable risks and perform as a programmed servant? The Contractor has always chosen the method of planning which it considers most beneficial to achieve its primary obligations with or without additional planning reporting obligations, and that method might simply be a high level programme with a detailed lookahead.

This might be overly cynical, but one has to wonder whether the real purpose of these kind of developments in construction contracts , is not in fact anything to do

[81] https://www.newcivilengineer.com/latest/delays-to-large-scale-construction-projects-more-than-double-since-start-of-pandemic-12-01-2022/#:~:text=Meanwhile%2C%20nearly%20a%20quarter%20of,by%20at%20least%20a%20year.
[82] https://www.arct.cam.ac.uk/system/files/documents/vol-3-3297-3314-wermiel.pdf

with speeding along the project, but as a means to try to legitimise the critical path method of analysing delays by tying the Contractor to particular programmes, thus depriving it of legitimate entitlement. **Regardless, using critical path analysis to assess extension of time entitlement is not in itself a management tool (let alone a useful one).**

15.5 Improving relationships between the parties?

The divisive nature of the disputes created by these approaches, must harm working relationships between Contractors and Employers.

Employers become more and more convinced that Contractors are useless because they finish late, when in reality the problem could be Employers putting so much risk onto the Contractor and placing so many constraints upon their performance, and so many restrictions on their ability to obtain appropriate extensions of time.

Employers seem to have become transfixed by the idea that reviewing extension of time entitlement in more and more detail will somehow get their projects finished more quickly and stop Contractors from making claims, even when it is the Employers themselves who often push Contractors into starting with less and less of the design complete and with impositions placed on recovering extension of time and relief from damages, such as the use of critical path analysis.

As pointed out in Section 1, studies show that construction companies out perform Employers/developers and their teams, year in year out. Contractors outperformed employers in terms of Key Satisfaction Performance Indicators in all 3 of their respective categories in 9 out of the 15 years in which these criteria were recorded within the 19 year period. Contractors' overall satisfaction with employers' performance was less than the employers' satisfaction measures with the contractor in all 15 years studied (15-0)!![83]

The critical path restriction on extension of time entitlement, can form a part of a vicious circle of misunderstanding and conflict.

15.6 More accurate assessment of entitlement?

As can be seen from the issues discussed in sections 14 and 14A of this report, the notion that critical path analysis provides a more accurate assessment does not appear to be well founded.

As explained further in 14.1 (and Parts 1,2 and 4), when applied to extensions of time, critical path analysis is not even measuring the right thing, i.e. Employer delays beyond the contractual completion date.

15.7 Conclusion

This report suggests that when it comes to extension of time, the critical path approach simply has no benefit at all.

[83]https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/articles/constructionstatistics/number192018edition (see page 14)

THE WRONG PATH

PART 4

A BETTER INTERPRETATION OF THE CONTRACTS AND THE LAW

16. THE LAWS ON DAMAGES AND THE PENALTY RULE IN ENGLISH LAW

16.1 The general rule on damages

Chapter 26 of *Chitty on Contracts* Twenty Fifth edition Volume 1 is titled, "Damages". The very first statement made in the opening paragraph on the opening page of that chapter reads, *"Damages for breach of contract are a compensation to the plaintiff for the damage, loss or injury he has suffered through that breach. He is so far as money can do it, to be placed in the same position* ***as if the contract had been performed****".*

The authority cited is *Robinson v Harman* (1848)[84]. In that case, Lord Wensleydale held, *"the rule of the common law is, that where a party sustains loss by reason of a breach of contract, he is, so far as money can do it to be placed in the same situation, with respect to damages****, as if the contract had been performed****"*

This principle has been the cornerstone of the English law and common law of damages for 170 years.

The judgment has been approved in the House of Lords at least 4 times since Justice Dyson's Malmaison decision in 1999 alone: *HM Attorney General v Blake (2000)[85], Alfred McAlpine Construction v Panatown Limited HL (2000)[86], Golden Straight Corporation v Nippon Yusen Kubishka Kaisha (2007)[87], Transfield Shipping Inv v Mercator Shipping Inc (2008)[88].*

In one of the numerous cases in which the judgement was approved during the 20th century (*Johnson v Agnew* 1980[89]), Lord Wilberforce (again in the House of Lords) stated , *"The general principle for the assessment of damages is compensatory, i.e. that the innocent party is to be placed….****in the same position as if the contract had been performed****".* In the third of the cases listed above (the Golden Straight), Lord Hope described this approach as being the, "*fundamental principle governing the quantum of damages for breach of contract*".

16.2 The exception to the rule

Historically, English law and international common law has provided that the parties may pre-agree a level of damages, if that agreement passed the tests set out in the House of Lords case of *Dunlop Pneumatic Tyre v New Garage and Motor Company* (1915)[90].

If the tests are failed, then the clause falls away, and general damages have to be demonstrated in the normal way. On that basis, this report suggests that

[84] (1848) 1 Ex Rep 850
[85] [2000] UKHL 45
[86] [2000] UKHL 43
[87] [2007] UKHL 12
[88] [2008] UKHL 48
[89] [1980] AC 367
[90] Dunlop Pneumatic Tyre v New Garage (1914)

the rules set out in the *Dunlop* case and other penalty cases, must operate as an exception to the general rule set out above in 16.1.

The leading judgement in the *Dunlop* case from Lord Dunedin, provided that the fundamental distinction between a penalty clause (which could not be enforced), and a provision which would not amount to a penalty, is that a penalty is something which is not a "genuine pre-estimate" of the loss which would otherwise be suffered on account of a particular breach.

The principle was distilled into 4 tests, with 2 of those tests having often been regarded since as the more prominent ones, namely (as summarised by Lord Neuberger and Lord Sumption in the Supreme Court in the case of *Cavendish Square Holding BV v Talal El Makdessi and ParkingEye Ltd v Beavis* in 2015)[91] ("*Cavendish and Parkeye*"):

"…a) that the provision would be penal if the sum stipulated for is extravagant and unconscionable in amount in comparison with the greatest loss that could conceivably be proved to have followed ***from the breach****….c) that there was a presumption (but no more) that it would be penal if it was payable in a number of events of varying gravity…"*

In *Bunge SA v Nidera BV* (2015)[92] ("*Bunge*") the Supreme Court considered an express clause which provided for a method of assessing damages arising from a repudiation or unilateral cancellation of a contract. The party which had breached the contract appears to have claimed that no loss had actually been incurred and that the mechanisms contained within the clause which would have provided liability for substantial damages, could not be relied upon[93].

Judgements were given by Lord Sumption and by Lord Toulson. The other three judges (Lords Neuberger, Mance and Clarke) agreed with both judgements. It is submitted that the judgments can be summarised as follows:

Lord Toulson's judgment

- *"The fundamental principle for the assessment of damages in cases of breach of contract…is the principle of restitutio in integrum)"*
- *"****The fundamental compensatory principle makes it axiomatic that any method of assessment of damages must reflect the nature of the bargain which the innocent party has lost as a result of the repudiation****…" N.B.* (in that case, the breach was a repudiation)

Lord Sumption's judgment

- *The fundamental principle of the common law of damages is the compensatory principle, which requires that the injured party…be placed in the same situation…as if the contract had been performed'."*
- ***"…(consideration of) what would have happened if the (breach) had not occurred…seems to be fundamental to any assessment of damages designed to compensate the injured party for the consequences of the breach."***

[91] [2015] UKSC 67
[92] [2015] UKSC 43
[93] The clause was not a liquidated damages clause as such, but purported to provide for means of assessing damages with reference to market prices at a given time.

- *"Commercial certainty (*where a quantification of damages is stated in the contract*)…can rarely be thought to justify an award of substantial damages to someone who has not suffered any (damage)"*
- *"…A damages clause may be assumed, in the absence of clear words, not to have been intended to operate arbitrarily, for example by producing a result unrelated to anything which the parties can reasonably have expected to approximate to the true loss"*
- *"nothing in the clause required a loss calculated in accordance with the default clause to be awarded to the injured party if…it had not been suffered…The alternative is to allow the clause to operate arbitrarily as a means of recovering what may be very substantial damages in circumstances where there has been no loss at all."*

On this basis it is submitted it is clear that if a damages clause does not contain "clear words" then it may not operate "arbitrarily".

If it contains clear words to the effect that substantial (as opposed to nominal) damages can be recovered where there has been "no loss at all", then Lord Sumption's judgment appears to indicate that such a clause will not be effective or will "rarely" be effective, and Lord Toulson's judgement appears to indicate that such a clause would not be likely to be effective.

The judges do not state how such a clause would be held to be invalid, but it is presumed that it would be treated as a penalty.

Also in 2015, their Lordships considered not one but two cases relating to penalties[94] together, in *Cavendish and Parkeye*. This time the judges from *Bunge* were joined by Lords Carnwath and Hodge. It should be noted though that some of the principles discussed by their Lordships may differ when addressing an ordinary contractual damages clause[95] [96].

Lord Neuberger and Lord Sumption (with whom Lords Carnwath and Clarke agreed) seemed to wrestle with the issue of the use of the clause as a deterrent, before ultimately deciding to cast that principal adrift and holding that it is not necessarily decisive. They comment further as follows:

"A damages clause may properly be justified by some other consideration than the desire to recover compensation for a breach. This must depend on whether the innocent party has a legitimate interest in performance extending

[94] The first thing to note is that whilst both cases superficially concerned penalties, the first was described in the judgement of Lord Neuberger and Lord Sumption as relating rather to a "forfeiture", and the second appears to the casual observer simply to relate to a charge. Nevertheless they were both reviewed by the Supreme Court in the context of the penalty rule.

[95] in fact it is even submitted that the case may be of as much interest to those who engage in restrictive covenants and unusual methods of charging for services, as it should to those who include damages clauses for non-performance of a contract

[96] The Cavendish case concerned a situation where a wealthy businessman had sold the majority of the shares in his business, but subsequently breached a non-competition clause, whereupon the contract provided that certain payment which would otherwise have arisen from the sale would be forfeited.

***beyond the prospect of pecuniary compensation flowing directly from the breach in question**."*

*"…**In the case of a straightforward damages clause, that interest will rarely extend beyond compensation for the breach**…But compensation is not necessarily the only legitimate interest that the innocent party may have…."*

*"ParkingEye…had a legitimate interest in charging them which extended beyond the recovery of any loss…**deterrence is not penal if there is a legitimate interest in influencing the conduct of the contracting party which is not satisfied by the mere right to recover damages for breach of contract**…"*[97]

Lord Mance (with whom Lord Clarke agreed) added, *"There may be interests beyond the compensatory which justify the imposition on a party in breach of an additional financial burden…what is necessary in each case it to consider, first, whether any (and if so what) legitimate business interest is served and protected by the clause, and, second, whether, assuming such an interest to exist, the provision made for the interest is nevertheless in the circumstances extravagant, exorbitant or unconscionable…"*

Lord Hodge (with whom Lord Clarke and Toulson also agreed) held, *"I therefore conclude that the correct test for a penalty is whether the sum or remedy stipulated as a consequence of a breach of contract is exorbitant and unconscionable when regard is had to the innocent party's interest in the performance of the contract."*

Lords Sumption, Neuberger, Carnwath & Clarke's tests are submitted to be as follows:

1. Does the clause seek to extend beyond compensation for the breach?
2. If so, is that extension on account of a "legitimate interest"?

Lords Mance, Clarke & Toulson tests are submitted to be as follows:

1. Does the clause seek to extend beyond compensation for the breach?
2. If so, that extension on account of a "legitimate interest"?
3. If so, is the consequence "extravagant, exorbitant, or unconscionable"?

Lords Hodge, Clarke, Toulson's tests are submitted to be as follows:

1. Does the clause seek to extend beyond actual loss for the breach?
2. If so, is the consequence "exorbitant or unconscionable"?

See also the authorities and discussion on pages 136/137, regarding the focus being on the breach or the wrong/default of the performing party.

We have already seen in section 15, that there is no legitimate interest in using a critical path clause. Furthermore, with a critical path clause, there can NEVER be any loss as a result of the default of the Contractor, to the extent of sub-critical Employer delay beyond the Completion Date. The exception to the general rule does not seem to apply.

These conclusions are not intended to be definitive and must not be relied upon. Legal advice would be required.

[97] The Parkeye case involved a parking scheme whereby drivers were provided with 2 hours free parking, but were charged £85 if they stayed longer than 2 hours.

17. APPLICATION OF THE PENALTY RULE AND OWN WRONG RULE

17.1 The example project and its contract mechanisms

The contract

The contract for our example project includes an extension of time clause which states that, *"A delay to Completion Date is assessed as the length of time that, due to the compensation event, planned Completion is delayed. Planned Completion shall be assessed by reference to the Contractor's actual progress and reasonably forecast progress at the date when the Compensation event occurred. Planned completion is not delayed by a Compensation Event, where it had already been or would otherwise be delayed by a matter which is not a Compensation Event".*

The damages clause provides that delay damages shall be calculated based on the difference between the date of Completion and the date of the Completion Date adjusted under the extension of time clause.

Unlike in the fit for purpose model with balances risks between the parties, this clause does not provide for an extension of time merely because additional Employer risk events transpire, which would push completion beyond the Completion Date. Instead, entitlement will only arises where the Employer event causes further or additional delay to planned completion, on top of any delays by the Contractor.

This is calling for a critical path analysis to assess extension of time entitlement. Sub-critical Employer delay to the original completion date is disregarded when calculating extension of time entitlement.

The project.

The project involves two distinct "paths of work". Initially they are jointly critical, and **shown in red in the figure 1** below, both due to finish on Day 0 (the Completion Date stated in the contract).

Figure 1

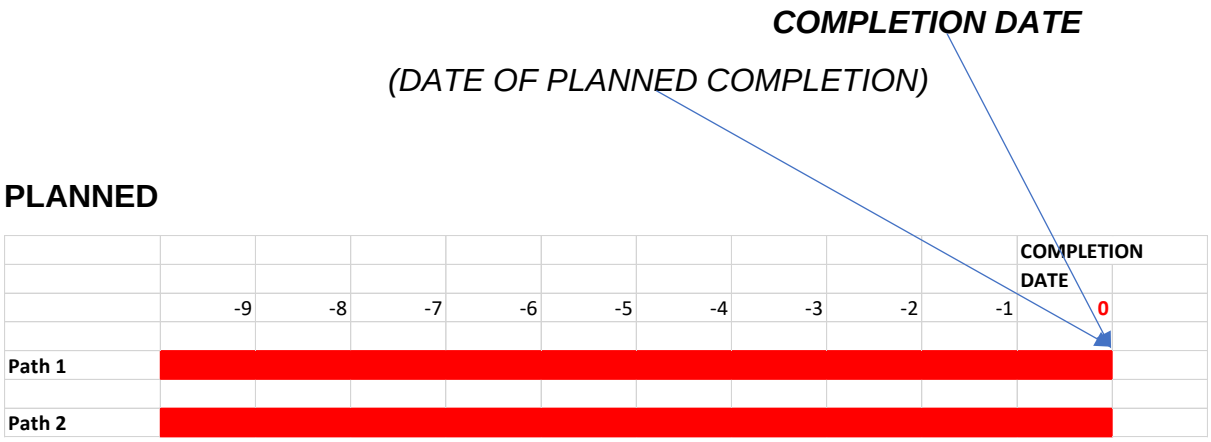
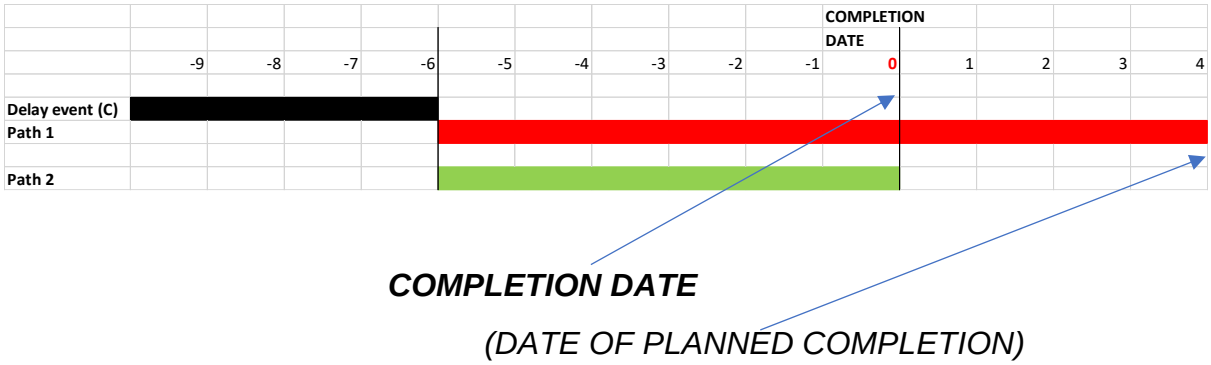


Figure two below shows that in the example, a Contractor delay event has occurred on path 1 (ceasing after day -6), pushing planned completion out to 4 days post the completion date. This makes path 1 the critical path.

Figure 2

AFTER 'CONTRACTOR DELAY EVENT'



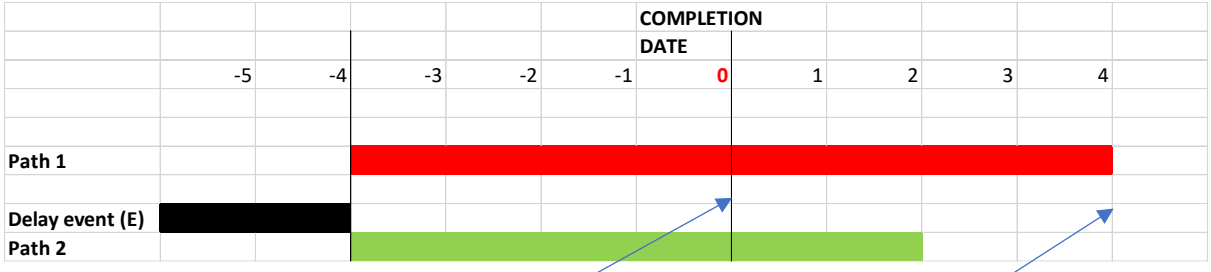
COMPLETION DATE

(DATE OF PLANNED COMPLETION)

Then, as **shown in figure 3 below,** an Employer event happens (ceasing after day -4), which delays the now sub-critical path (path 2). That path will now finish 2 days **after** the Completion Date, but 2 days *before* the critical – Contractor delayed – path 1. It remains a non-critical path. And that's how the job finishes.

Figure 3

AFTER SUBSEQUENT 'EMPLOYER DELAY EVENT' (& AS-BUILT POST COMPLETION)

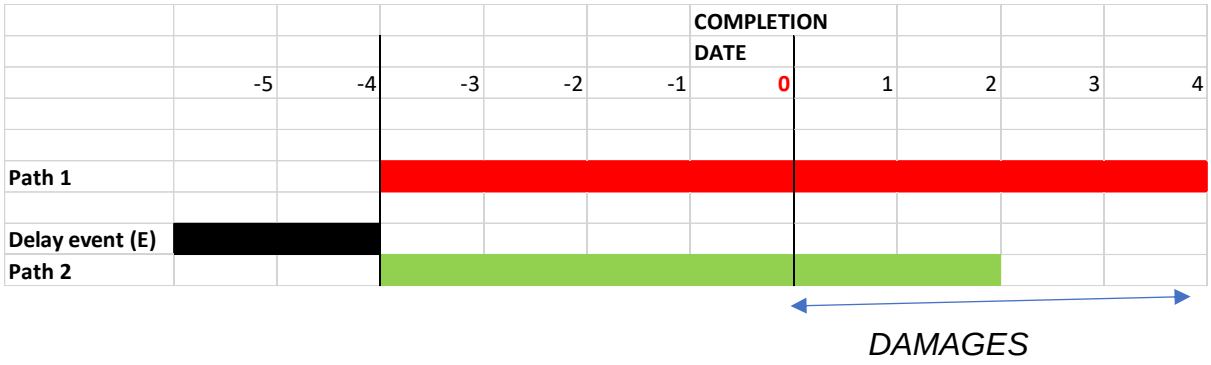


COMPLETION DATE

(DATE OF ACTUAL COMPLETION/ PRACTICAL COMPLETION)

The Contractor is 4 days in delay but the Employer's actions meant that the Contractor would have finished 2 days late anyway. However, remember our contract requires a critical path analysis. Therefore the Contractor is still liable for 4 days of delay damages, as shown in Figure 4 below:

Figure 4



17.2 Application of the penalty laws

We established in Section 16.2 that:

1. *"The fundamental principle of the common law of damages is the compensatory principle, which requires that the injured party…be placed in the same situation…as if the contract had been performed'".*[98]
2. *"The fundamental compensatory principle makes it axiomatic that any method of assessment of damages must reflect the nature of the bargain which the innocent party has lost as a result of the repudiation…"* [99](or breach)
3. The traditional position is that an LD clause will not be enforced if it does not represent a "*genuine pre-estimate*" of loss
4. An LD clause will "*rarely*" not be a penalty, where it provides for, *"an award of substantial damages to someone who has not suffered any* (damage)"[100]
5. An LD clause will be presumed (but no more) to be a penalty, "*if it was payable in a number of events of varying gravity…")*[101]
6. An LD clause will "rarely" not be a penalty if it seeks to recover an amount in excess of compensation, i.e. actual loss[102]
7. An LD clause may not or will not be a penalty in such circumstances if the amount in excess of compensation is on account of the innocent party having "*a legitimate interest in performance extending beyond the prospect of pecuniary compensation* (i.e. compensation relating to money) *flowing directly from the breach in question."*[103]
8. An LD clause will be a penalty if its purpose is to deter, unless, "*there is a legitimate interest in influencing the conduct of the contracting party which is not satisfied by the mere right to recover damages for breach of contract…"* [104]
9. **Where the clause seeks to do more than compensate, the test of whether it is a penalty is, "*first, whether any (and if so what) legitimate business interest is served and protected by the clause, and, second, whether, assuming such an interest to exist, the provision made for the***

[98] Lords Sumption, Neuberger, Mance and Clarke in Bunge
[99] Lords Toulson, Neuberger, Mance and Clarke in Bunge
[100] Lords Sumption, Neuberger, Mance and Clarke in Bunge
[101] Lords Sumption, Neuberger, Carnwath, Clarke in Cavendish & Parkeye
[102] Lords Sumption, Neuberger, Carnwath, Clarke in Cavendish & Parkeye
[103] Lords Sumption, Neuberger, Carnwath, Clarke in Cavendish & Parkeye
[104] Lords Sumption, Neuberger, Carnwath, Clarke in Cavendish & Parkeye

interest is nevertheless in the circumstances extravagant, exorbitant or unconscionable…" [105]

10. Or, perhaps for an ordinary damages clause, the principles set out in the *Dunlop Pneumatic Tyre* case, focusing on a genuine pre-estimate, "*the greatest loss that could conceivably be proved to have followed"* from the breach…and, "*whether it was payable in a number of events of varying gravity*…"

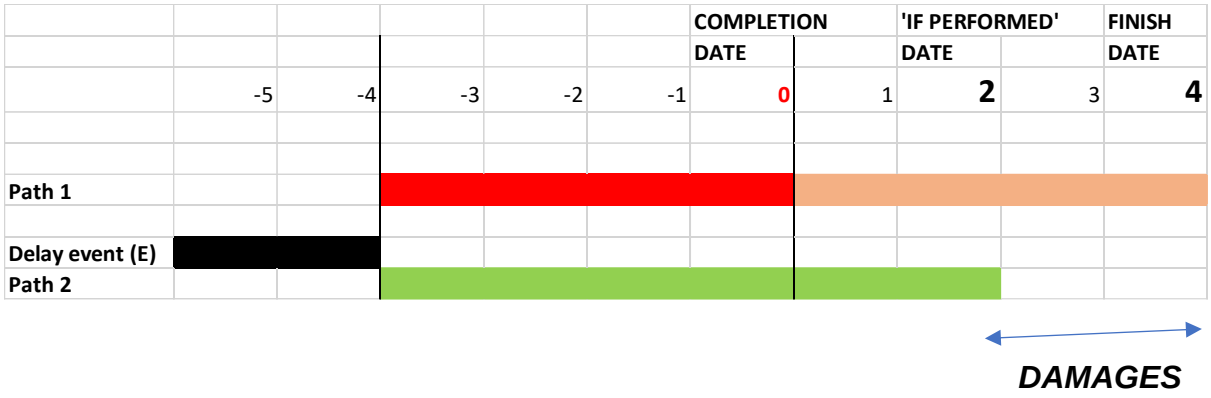
Furthermore we have established that:

11. On the basis of the Court of Appeal case of *North Midland Building v Cyden Homes*, we know that an extension of time clause is to be treated as if it were a part of the liquidated damages clause. (See Section 32).
12. A contract which requires extension of time entitlement to be assessed by a critical path analysis), has the effect of providing that the Employer can recover damages for periods of delay which were caused by both the Employer and the Contractor (Section 5).
13. In those circumstances, the Employer can not IN ANY INSTANCE suffer any loss as a result of the Contractor's own failure. Whereas there may be occasions, where English law allows pre-agreed damages to be recovered in a situation where 'no loss' has actually transpired, with a critical path clause there can **NEVER** be a loss. It can not be a genuine pre-estimate, and in situations in which there is sub-critical Employer delay to the Completion Date (the green line beyond the Completion Date) it can never represent a restoration of the 'injured' Employer to the position it would have been in had the Contractor performed the contract, nor an attempt to do so.
14. **There is no legitimate interest for a critical path clause** (Section 15).

On this basis, it looks like the Employer can not rely on the critical path clause which (or to the extent which it) creates a delay damages period which is longer than the period which would be calculated by considering the effects of Employer risks upon the contract completion date without consideration of Contractor delays.

Let's see what happens if we try to restore the Employer to the position it would have been in if the contract had been performed by the Contractor:

Figure 5



[105] Lords Sumption, Neuberger, Carnwath, Clarke in Cavendish & Parkeye

On the face of it, it looks like if the Contractor had performed its bit of the bargain (late bit of the red line 'removed' representing the delay caused by the Contractor), then the project would still have finished 2 days late on day +2 because of the Employer's delay. Even if the Contractor had been on time in respect of the things that it was responsible for, then the project would have finished two days late anyway. On that basis, there would only be 2 days delay damages (day +4 - day +2) in order to compensate the Employer's loss. The critical path clause could not be relied on.

But there is a 'however'. However. On one argument, Figure 5 does not actually restore the Employer to the position where the contract had been performed by the Contractor at all. This is on the basis that the Contractor is responsible for achieving Completion. Where it is delayed by the Employer, it is still ultimately ("prima facie") the Contractor's obligation, notwithstanding that it was the Employer which was really 'to blame'.

On this basis, the 'Employer' delay would disappear, and we'd back where we started at figure 4:

Figure 6

So which position is right? Figure 5 or Figure 6?

17.3 Consideration of *North Midland Building*

Sections 6 and 29 of this report explain the principle in law which provides that a party may not benefit from or rely upon its own wrong.

As explained in Section of this report, in *North Midland Building Ltd v Cyden Homes Ltd 2018*, the Society of Construction Law's President Lord Justice Coulson held that the parties could rely on an express clause which provided for no extension of time entitlement in situations of concurrent delay.

The court further held that that would entitle the Employer to damages in those circumstances (rejecting an argument of an implied term that it went without saying that this was not the case).

As pointed out in Section 32 the same arguments may be raised in relation to sub-critical Employer delay in order to justify the use of critical path analysis.

It's noted though that whilst no express distinction is made in the *North Midland* judgement between the prevention principle and the own wrong principle, it could be argued (on the basis of the reasons set out in the twenty third point raised in section 32 of this report) that *North Midland Building Ltd*'s findings on 'contracting out' are limited to the prevention principle in delay cases, and do not cover the arguably wider own wrong principle.

Section 32 of this report raises 27 objections (in the ordinary sense of the word) to the decision in *North Midland Building*. Key arguments which might be raised in other cases in relation to a contracting out of the own wrong principle as it relates to delay damages, may include reference to:

- The Supreme Court rules from *Bunge* on interpreting LD clauses (see point 12 in section 32)
- The rules set out in the House of Lords in *Eton College* (see the 13th point in Section 32) which might require the contract to contain a separate express term stating the right which has been created to rely on the own wrong can be enforced (Eton College)

In the event of a finding that i) a term purporting to disallow extension of time in circumstances of sub-critical Employer delay is effective, *and* ii) that time was *not* thereby set at large, then the potential grounds identified in this report for arguing against the application of damages in such circumstances, could be summarised as follows:

1. That the "own wrong" rule can be applied (see the 22nd-26th points in Section 34) in order to negate a defence to the penalty rule.
2. That the penalty rule can be applied directly (see the 22nd-26th points in Section 32).
3. The doctrine of deemed performance, eg Unidroit Principle of International Commercial Contracts ("*the relevant conduct does not become excused non-performance but loses the quality of non-performance altogether*"), *Roberts v The Bury Improvement Commissioner, Holme v Guppy, Mackay v Dick, Société Générale (London Branch) v Geys*, coupled with the rules on penalties, could have the same effect.
4. The possibility of the use of the own wrong principle in equity

Should none of the arguments identified above, or in section 32, be effective (and figure 6 applies), then it would appear that the *North Midland* decision would effectively clear the way (where stipulated by the contract) for critical path analysis in English law.

Parties might wish to note, that should such a position prevail, it would most likely be on the basis that critical path analysis represents an express exclusion of the principle that a party can not benefit from its own wrong, or specifically can not charge damages for delay which it has caused itself. As discussed in Appendix A, such a decision would appear to go against 400 years of legal precedent.

These conclusions are not intended to be definitive and must not be relied upon. Legal advice would be required.

18. AN INTEPRETATION OF THE STANDARD FORMS

18.1 NEC

This contract provides that:

- "*The Contractor does the work so that the Condition stated for each Key Date is met by the Key Date*"
- "*If a programme is not identified in the Contract Data, the Contractor submits a first programme…for acceptance within the period stated in the Contract Data*"
- *"The Contractor shows on each programme submitted for acceptance…the order and time of the operations which the Contractor plans to do in order to Provide the Contract Works… planned Completion*"
- "*The Contractor submits a revised programme…for acceptance….at no longer interval than the interval stated in the Contract Data…*"
- ***"A delay to Completion Date is assessed as the length of time that, due to the compensation event, planned Completion is later than planned Completion as shown on the Accepted Programme current at the dividing date****…."*

In this case, the contract does appear to call for a critical path analysis. It could be noted that as with NEC, the clause does not state that the delay to planned Completion needs to be caused solely by the compensation event (i.e. that no delay is caused if there is already a longer Contractor delay), however the updated accepted programme against which the delays are measured will already incorporate contractor delays. It is suggested that the most practical approach in these circumstances is to use critical path analysis, as it would make no sense for contractor delays to be included in updated Accepted Programmes, but excluded when it comes to calculating further delay to those programmes.

Effectively, we can conclude that the intention of the contract is that critical path analysis shall be used. See section 17 for the suggested position in English law.

18.2 JCT

The extension of time clause requires the Architect whenever he or she identifies a Relevant Event to estimate, *"whether the completion of the Works is likely to be delayed thereby* ***beyond the Completion Date****."* and to adjust the Completion Date accordingly on a "*fair and reasonable*" basis, and further within 12 weeks of practical completion being achieved to, *"fix a Completion Date later than that previously fixed if in his opinion the fixing of such later Completion Date is fair and reasonable having regard to any of the Relevant Events"*[106].

[106] The JCT Standard Form Building Contract and its predecessors contain the following requirements:

- Upon receipt of the Contractor's notice, particulars and estimate, the Architect is required to form an "*opinion*" as to whether 1. Any of the matters constitute Relevant Events, and if so 2. "***whether the completion of the Works is likely to be delayed thereby beyond the Completion Date*****."**
- If the Architect's opinion is that both criteria are met then he or she must give an extension of time by**, "*****fixing such later date as the Completion Date as he then estimates to be fair and reasonable"*****.**
- If reasonably practicable, the Architect must fix the revised Completion Date within 12 weeks of receiving the notice, particulars and estimate, and prior to the existing Completion Date.

Firstly what makes a critical path construction unlikely, is that in 1980 nobody (in the UK at least) suggested that critical path analysis should be applied to extensions of time (see sections 9-11), and the wording of the clause – in this respect – is the same today as it was in 1980.

Secondly, the contract provides that an extension of time shall be granted in respect of the applicable period of (Employer) delay, and that Liquidated Damages can be taken in respect of the resulting period of delay for which the Contractor is responsible:

LD period = Actual construction period – (original contract period + Employer delay)

But the construction needed to support the prevention approach (which critical path takes where an Employer delay occurs after a Contractor delay – See section 5), would be to add up the Contractor delay, and subtract that period from the actual period of construction, and subtract the original contract period from that: **LD period = Actual construction period – original contract period – Contractor delay**

That is clearly not what the JCT contract provides for, and neither does it provide for a calculation of Employer events which occurred before Contractor events.

Thirdly, If those responsible for the original drafting of the clause – which in this respect has been the same since at least 1980 – had intended for critical path analysis to be used, it seems likely that they would have stated "the Works is likely to be delayed thereby beyond the date on which Practical Completion is currently reasonably forecast to occur". or similar.

The issue which causes confusion is the intention of the words, "*whether the completion of the Works is likely to be delayed thereby*". People have become transfixed by the words, "*whether the completion of the Works".* But it is submitted that all that the clause is asking, is whether *the finish of the project* i.e. the project (the completion of the Works), will be delayed beyond the Completion Date by the Relevant Event. That's what it asks. It's submitted it's nothing to do with the finishing date being later than it would otherwise have been.

Fourthly, this approach is in accordance with the fit for purpose model identified in section 3 above AND the cure to the prevention principle problem identified in section 8 above.

- Then, "***Not later than the expiry of 12 weeks after Practical Completion****"* the Architect shall write to Contractor either confirming the Completion Date previously fixed, OR ***"fix a Completion Date later than that previously fixed if in his opinion the fixing of such later Completion Date is fair and reasonable*** *having regard to any of the Relevant Events, whether upon reviewing a previous decision or otherwise and whether or not the Relevant Event has been specifically notified by the Contractor…".*
- The Completion Date once extended shall not be put forward other than in relation to instructions to omit items of work.

Similarly, and **fifthly**, the clause doesn't ask 'Is the reason the Works are going to finish later than the agreed period, a Relevant Event, or is it another reason?', it asks 'is this Relevant Event going to make the Works finish later than the agreed period?'

Sixthly, it's noted, that the version of the Standard Building Contract included 2 changes to the delay mechanisms[107] from the 1980/1998 versions.

- In the clause titled, "*Notice by Contractor of delay to progress*" (now clause 2.27) 2.27.2 now required Contractor to notify particulars and expected effects **of all events notified pursuant to clause 2.27.1**. In previous versions of the contract, particulars only had to be given of **Relevant Events**. In this version of the contract and subsequent versions of the contract, the contract could reasonably be interpreted as recognising the concept of Contractor delay events.
- In the clause titled "*Fixing Completion Date*" (now clause 2.28), **the words, "*save where these Conditions expressly provide otherwise*", are inserted immediately before the words, "*The Architect/Contract Administrator shall…give an extension of time by fixing such later date as the Completion Date as he then estimates to be fair and reasonable*",**

Both of these new provisions have remained in subsequent versions of the contract. It is tentatively submitted that the intention of the change to 2.28, was to oust the application of critical path analysis and concurrent delay arguments. It is submitted that the (primary) intention of the change in notification requirements, is with regards to claims for loss and/or expense.

Seventhly, it seems clear from the clause's clear wording, that it is concerned with the consideration of Relevant Events, i.e. Employer risk events, and not other causes of delay. The Contract doesn't mention Contractor events in the extension of time clause (although it effectively does so in the Contractor's notification clause which is a part of the same mechanism). Employer risks have been described since 1980 as being the Relevant Events. It therefore seems to follow that other events were not only intended not to be Relevant Events but also thereby irrelevant events.

Taking all of the above into account, it is suggested that the intention is for delays to be measured on an interim basis (by means of an "estimate" by the Architect, not an attempt at a precise scientific calculation by a delay expert witness) not against the prevailing forecast date of Practical Completion (which is not mentioned in the clause), but rather, as the clause states, against the Completion Date.

Eighthly, it's noted that when it comes to the Architect making the *final assessment* of entitlement[108] there is no reference to whether the Relevant Event caused delay to

[107] Key provisions of the 1980 clause are included in Appendix D

[108] The Architect shall write to Contractor either confirming the Completion Date previously fixed, reducing the completion date in respect of any instructions omitting work issues since the latest review (but not to earlier than the original Completion Date), OR to *"fix a Completion Date later than that previously fixed if in his opinion the fixing of such later Completion Date is fair and reasonable having regard to any of the Relevant Events, whether upon reviewing a previous decision or otherwise and whether or not the Relevant Event has been specifically notified by the Contractor…".*

the completion of the Works. Rather, the Architect is required to make a "*fair and reasonable*" assessment (of the revised time for completion), "*having regard to any of the Relevant Events*". Bearing in mind that restricting entitlement to events on the critical path is neither fair nor reasonable (see Part One of this report), it's not clear where the critical path would come into it on a retrospective basis, even if it could be argued to do so in relation to interim assessments (which on a plain construction of the clause seems difficult to sustain).

18.3 FIDIC (Red Book first edition 1999)

Again, it is submitted that it is not clear that a critical path analysis is required/applicable.

Sub-clause 8.7 of that contract is titled, "Delay Damages". It states that the Employer may claim the liquidated damaged, "*If the Contractor fails to comply with clause 8.2…"*

Sub-clause 8.2 is titled "Time for Completion". It states, "*The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion…"*

Sub-clause 8.4 of that contract is titled, "Extension of Time for Completion" and states (emphasis added), *"**The Contractor shall be entitled** subject to Sub-Clause 20.1 (Contractor's Claims) **to an extension of the Time for Completion if and to the extent that completion** for the purposes of Sub-Clause 10.1 (Taking Over the Works and Sections) **is or will be delayed by any of the following clauses:…"***

And after setting out the condition precedent and other requirements, Sub-Clause 20.1 states, *"…Within 42 days after receiving a claim or any further particulars….the Engineer shall respond with approval, or with disapproval and detailed comments…The Engineer shall proceed in accordance with Sub-Clause 3.5 (Determinations) to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4…"*

Sub-clause 3.5 states, *"Whenever these Conditions provide that the Engineer shall proceed in accordance with this Sub-Clause 3.5 to agree or determine any matter, the Engineer shall consult with each Party in an endeavour to reach agreement. If agreement is not achieved, the Engineer shall make a fair and reasonable determination in accordance with the Contract, taking due regard of all relevant circumstances.".*

So the determination has to be in accordance with Sub-clauses 8.4 and 3.5 which require respectively:

- *an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 (Taking Over the Works and Sections) is or will be delayed*
- *determined (in the absence of agreement between the parties) on a "fair and reasonable" basis, in accordance with the Contract, taking due regard of all relevant circumstances.*

It is noted that in terms of notice requirements, clause 8.3, "*programmme*" requires the Contractor to notify the Engineer of matters which will delay the execution of the Works, and allows the Engineer to require an estimate of the anticipated effect of any matter which may adversely affect the work.

Clause 20.1 "Contractor's claims", requires the Contractor to give notice to the Engineer, "*describing the event or circumstance giving rise to the claim".* There is also a requirement to comply with notification requirements (potentially including under 8.3, *"as relevant to such event or circumstance*". It's submitted, that there is nothing definitive from these provisions in relation to the matters discussed in this paper.

The following differences are noted from JCT:

- Instead of referring to, "*whether the completion of the Works is likely to be delayed thereby beyond the Completion Date*" the contract refers to "*the extent that completion for the purposes of Sub-Clause 10.1 (Taking Over the Works and Sections) is or will be delayed*".
- There is no separate "fair and reasonable" assessment of Employer events after completion has been achieved. However, the assessment, including as to whether the Employer event has caused delay, is to be determined *(in the absence of agreement between the parties) on a "fair and reasonable"* basis, in accordance with the Contract, taking due regard of all relevant circumstances.
- There is no reference to the Engineer making an "estimate" or expressly to him or her forming an "opinion" (although he or she will have to form an opinion).
- The Contractor is required to submit programmes reflecting progress etc, and is required to progress the Works in accordance with the programme, however it's difficult to see how this point has any relevance to the question of whether extension of time is to be assessed using critical path method.

The circumstances in which an extension becomes due are, "*if and to the extent that completion…is or will be delayed by*", the Employer risk event. **The clause does not state delayed wholly or partly by, but neither does it state solely**. The clause makes no express exception in the event that there is an existing Contractor delay.

Although there is no reference in clause 8.4 to, "beyond the Time for Completion" akin to "beyond the Completion Date" in JCT, arguably this does not make a significant difference. With JCT we said that the clause asks 'is this Relevant Event going to make the Works finish later than the agreed period?'. With FIDIC we could say that it asks, 'is this Employer event going to make the Works finish later? as distinct from distinct from, "Is the Employer event going to make the Works finish later than the currently forecast date?" or 'are the Works going to finish later because of a Relevant Event, or because of something else?'.

And as with JCT, the contract provides that an extension of time shall be granted in respect of the applicable period of (Employer) delay, and that Delay Damages can be taken in respect of the resulting period of delay for which the Contractor is responsible: **DD period = Actual construction period – (original contract period + Employer delay)**.

It is suggested that whilst a critical path requirement seems more arguable than with JCT, it is not clear cut.

It's also noted that any amendments to the General Conditions, and any Particular Conditions agreed by the parties would also have to be considered.

18.4 FIDIC (Red Book second edition 2017)

In 2nd edition, sub-clauses 8.4 and 8.7 becomes sub-clauses 8.5 and 8.8, and, more importantly new wording is added to sub-clause 8.5 (was 8.4), as follow: *"If a delay caused by a matter which is the Employer's responsibility is concurrent with a delay caused by a matter which is the Contractor's responsibility, the Contractor's entitlement to EOT shall be assessed in accordance with the rules and procedures stated in the Special Provisions (if not stated, as appropriate taking regard of all relevant circumstances)"*

It is suggested that this clause, which is invariable likely to be coupled in the GCC with a Special Provision to the effect that there is no EOT entitlement in the event of concurrent delay or perhaps by reference to the SCL Protocol, may lead to a different result than using the 1st edition, however the definition of "concurrent delay" will need to be considered, to determine whether this additional provision would apply to sub-critical Employer delay.

It seems more likely that a critical path analysis would be deemed applicable in this contract than with the 1st edition or the JCT contracts, on a strict contractual interpretation (depending on the content of the Special Provisions). *A lot* of disputes are likely to arise over the meaning of the clauses drafted by the parties pursuant to this change, not least due to unclear definitions drafted by the parties.

18.5 JCT and FIDIC contracts in English law

We established in above that:

- JCT contracts do not appear to call for an assessment of additional delay to actual completion (but rather a fair and reasonable assessment of Employer delays beyond the Completion Date) and a critical path analysis would therefore appear to be inappropriate. (See section 18.2)
- Subject to the Particular Conditions, it's not clear whether FIDIC RedBook1stedition requires critical path analysis (See Section 18.3)
- Depending on the Particular Conditions and the Special Conditions, it's not clear what FIDIC RedBook 2nd edition would provide (See Section 18.4)

We have also established in Section 16.2 that:

- An LD clause will be assumed not to attempt to put the Employer "*in a far better position than if the breach had not occurred*" in the absence of clear words[109].
- A Liquidated Damages clause will be assumed not to operate "arbitrarily" in the absence of clear words[110].

[109] Lords Toulson, Neuberger, Mance and Clarke in Bunge
[110] Lords Sumption, Neuberger, Mance and Clarke in Bunge

- A Liquidated Damages clause will be assumed not to attempt to allow the party to recover, "*what may be very substantial damages in circumstances where there has been no loss at all*" in the absence of clear words. [111]

On that basis, it is suggested that the correct approach in English law could be to consider critical path analysis as not being in accordance with JCT or (subject to the Special Conditions and Particular Conditions) FIDIC.

These conclusions are not intended to be definitive and must not be relied upon. Legal advice would be required.

[111] Lords Toulson, Neuberger, Mance and Clarke in Bunge

19 OTHER LEGAL JURISDICTIONS

Similar principles to some of those set out above may apply in other common law jurisdictions.

In terms of civil law jurisdictions, the position may actually more straightforward.

An article from 2010[112] explains a "tripartite test" in the law of the United Arab Emirates,

> *"in order for liquidated damages to be awarded, the following requirements must be satisfied (failing which, no liquidated damages would be awarded)…**B) Actual damage sustained by the party who invokes the liquidated damages clause**"*
>
> *"The UAE high courts have confirmed, in several occasions, that this tripartite test must be satisfied. The Dubai Court of Cassation held that the inclusion of a liquidated damages clause into a contract does not supersede this tripartite test for awarding damages . The Federal Supreme Court has also concluded that the liquidated damages are subject to this tripartite test."*

A more recent article from 2020 explains an update in the application of the tripartite test[113],

> *"A claim for liquidated damages is no exception and must meet the aforementioned tripartite test. However, an important distinction must be made; when parties contract into a liquidated damages clause, the creditor need not prove the extent, or even the occurrence of damages (UAE 264/2011). Instead, the burden of proof shifts to the defendant, who must prove that the claimant did not suffer damages (at all, or to the extent provided for in the liquidated damages clause) (UAE 187/2016)".*

Well, by demonstrating sub-critical Employer delay, it would seem that it may be possible to establish this point.

Similarly, Article 266 of the Qatar Civil Code states: "*No agreed indemnity shall be payable if the obligor proves that the obligee has suffered no damages....Any agreement to the contrary shall be invalid*.".

The following commentaries on certain European laws may be of interest (although their accuracy has not been checked in the preparation of this report):

- *"Article 1384 of the Italian Civil Code entitles the judge to reduce the penalty by equity, if the amount agree is "manifestly excessive";*
- *under German law, a penalty clause will not be enforceable if against "good manners" ("Verstoss gegen die guten Sitten" §138 BGB) or "good faith" ("Verstoss gegen treu und glauben" § 242 BGB) (3);*

[112] https://www.tamimi.com/law-update-articles/liquidated-damages-the-bigger-picture/ March 2012. Liquidated Damages - The Bigger Picture
[113] https://www.horizlaw.ae/news/liquidated-damages-construction-contractsdisputes

- *in France, Article 1152 of the French Civil Code states that the judge, even if not requested, may reduce or increase the agreed penalty if it is evidently excessive or significantly low."*[114]

Some of these arguments, particularly in civil law jurisdiction, might serve as alternative legal defences to damages, rather than directly affecting extension of time entitlement. This would make it all the more important that standard forms such as FIDIC, clarify that EOT entitlement is not predicated upon a critical path approach, so as to avoid the situation of having 2 separate disputes instead of none.

Bearing in mind the sometimes seemingly pejorative attitudes which western countries are often seen to have towards countries in the middle east and/or their systems of law, it seems quite ironic, that the GCC jurisdictions may take a more fair minded approach, or as Lord Coke would have put it (see Section 29) a less "*repugnant*" approach to the imposition of damages, than has arguably been suggested by the 21st century English judiciary.

These conclusions are not intended to be definitive and must not be relied upon. Legal advice would be required.

THIS PAPER DOES NOT CONTAIN LEGAL ADVICE. THIS PAPER DOES NOT PROVIDE ADVICE OR GUIDANCE, IT IS A DISCUSSION PAPER, AND IS NOT INTENDED TO BE RELIED UPON.

[114] https://www.linkedin.com/pulse/liquidated-damages-vs-ontractual-penalty-vincenzo-diego-cutugno/ The conclusions in this article must not be relied upon. Legal advice would be required.

THE WRONG PATH

PART 5

THE CONCURRENT DELAY ILLUSION

20. THE SOCIETY OF CONSTRUCTION LAW CONSULTATION DOCUMENT 2001

In 2001, the Society of Construction Law sent out to construction professionals in the UK, a consultation document which was effectively a draft version of a proposed Protocol on Delay and Disruption.

Some key content of the consultation document (and of the subsequent 1st and 2nd editions of the Protocol) applicable to EOT concurrency, is set out in Appendix F to this report.

There are a number of things to note from the consultation document, which are set out below.

Before we look at each of the items to note though, it's worth focusing on one of those points briefly, which is the requirement for the analyst to update contractor and employer delay events separately and strictly in the sequence in which they arose.

This seems to mean that before impacting the Employer (Relevant) event, the **full future** impact of an ongoing Contractor delay event is to be incorporated into the programme (to the extent that it is known or can be identified). It's a method which looks at the project not on a day by day basis, but on an event by event basis.

This kind of analysis looks at things not from the point of view of sequential time (in which case Contractor delay which is prospective from the perspective of the date on which the Employer event arises, would not be included in the programme before the Employer update), but from the point of view of sequential programming events.

It deals with whole 'events' on a first come first served or first in time basis.

It's important to understand that this effectively treats all delays as sequential (other than the very rare instance of true concurrency), as an Employer event which arises after a Contractor event, will only push the programme out once it exceeds the total delay caused by the Contractor event. In fact, the concurrency guidance largely seems to become redundant as a result for assessments made during the project.

The points of note referred to above are:

i) The document references contractor delay 'events'. This was a novel concept at the time, as contractor delay was generally regarded as being the aggregate delay to completion over the original contract period, less the extension of time for Employer delay.

ii) This appears to be the first time that the term "*true concurrent delay*" had been used[115]. It seems to be derived from an interpretation of a short passage of Justice Seymour in the 2000 case referred to as *Royal Brompton v Hammond & Others*, where Justice Seymour gave a vague comment on the meaning of concurrent delay during which he used the

[115] Assuming it was not used in Mr Pickavance's 1997 book, Delay and Disruption in Construction Contracts (the book is no longer available even in the British Library)

word "*already*" (Appendix E of this report includes 6 reasons why this interpretation of Justice Seymour's words appears to be misconceived).

iii) As mentioned above, the document has a policy for assessments undertaken during the project, of updating (Employer and Contractor) events, "*separately and strictly in the sequence in which they arose".*

iv) This author's interpretation is that the document appears to contain some hallmarks of a "first in time" approach to concurrency. A first in time approach appears to be effectively the same policy to all intents and purposes as the policy of separately updating events in the sequence in which they arise (although that only applies to contemporary/prospective assessments).

- It is submitted that the first-in-time approach is apparent from the words in brackets in Appendix 5, in which the analyst is told that in regards to "*EOT*", "***when a Contractor Risk Event occurs on the same day as an Employer Risk Event****, the effects of the Contractor Risk Event would not reduce any EOT indicated by the Employer Risk Event alone"* (the apparent implication being that in other circumstances, i.e. where the Contractor event starts on a day prior to the Employer event, there is no entitlement until the effects of the Employer event exceed the effects of the Contractor event).
- This seems to mirror the sequential updating approach for prospective assessments, where in regards to true concurrency the document states (para 3.7.6) that, "*The Employer Risk Event should be analysed first*", but for general parallel delays states (in paragraph 3.7.7) that "*Analyses should be carried out for each event separately and strictly in the sequence in which they arose".*
- Furthermore, it is submitted that the true concurrency approach introduced, is the essential building block for a first in time method. Without the introduction of the concept of true concurrency as distinct from other parallel delays, it is difficult to see how a first in time approach could be adopted.

v) The document generally substantively favours the Employer, essentially taking a prevention approach (this is referenced is several places in the document).

vi) The document appears arguably to be a little bit sneaky;

a. It suggests that there is entitlement for concurrent delay whether truly concurrent or not (para 3.7.1) by saying that entitlement should not be reduced, but doesn't mention that sequential updating will mean that the delays will show as sequential, in other words that there is no concurrent entitlement to make a reduction from.
b. Conversely, it states several times that the guidance is based on a prevention approach, but doesn't mention that that only applies when the Contractor delay happens before the Employer delay. When the Contractor is ahead of the game, no reduction is made to entitlement on account of its own delays which are lesser than the Employer's delays (critical path analysis).

c. It appears to bury the 'first in time' approach at the end of Appendix 5, which is a document most likely read by programmers.
d. It describes an approach of, "*statusing the network…by the inclusion of all known prospective Contractor delays"* as one which*, "can not be said to favour either party…",* which appears contentious, particularly when considering that there is no recommendation to status the programme with intended or potential mitigation measures.

vii) It makes work for delay analysts (the search for Contractor delay events), and the imposition of rules which suit planning software rather than the judgement of the Architect based on his first hand knowledge of the facts.

viii) It (inevitably for a work of this kind) provides grounds for disputes, e.g.
a. The seemingly conflicting provisions on concurrency (see vi(a) above)
b. Where para 3.5 states, "*The approved programme should be brought fully up to date (as to progress and the effect of all delays that have occurred up to that date…*". It's ambiguous whether, "*delays…up to that date*" refer to delay <u>events</u> up to that date, or delay <u>effects</u> up to that date? It's a subjective point which remains unclarified today.

ix) It thinks of a construction project as a programmer does, i.e. as a life model of a dynamic bar chart (rather than as, say, the performance of a set of agreed obligations which are performed day by day)

x) It makes its own law:
a. 'True concurrent delay'
b. 'Contractor Delay Event'
c. Sequential updating of whole events
d. First in time
e. Including all prospective contractor delays before impacting

Perhaps in part as a result of trying to balance different industry interests, many of these themes pervade the concurrency guidance within the Protocol documents.

21. THE SOCIETY OF CONSTRUCTION LAW PROTOCOL 1st edition 2002

Clearly there was something of an industry backlash to parts of the consultation document, and its fundamentally prevention based approach.

The (relevant) changes which the industry required from the consultation document, as reflected in the final Protocol document (1st edition) appear essentially to have been:

- Remove the recommendation to status the programme with "*all known prospective Contractor delays*" before impacting the Employer event
- Provide that the programme to be updated for planned Contractor mitigation measures before updating for Employer risk events
- Provide clarification that no reduction is made to extension of time on account of the existence of parallel delays
- Remove the separate sequential updating of events in relation to EOT.

All of these were implemented in the final version of the 1st Protocol, except that conflicting guidance was provided in relation to the 4th point. The conflicting guidance is explained in the numbered below.

1. Paragraph 3.7.7 of the consultation document, became Para 1.4.7 in the final version. Two changes were implemented which appears to have been a concession arising from the consultation process.

2. Firstly, the statement that there is no reduction in EOT for sequentially arising delays with concurrent effects, is now highlighted **in bold font**.

3. Secondly, additional wording is included in the paragraph to clarify that the requirement to update events separately in the sequence they arose, relates to "compensation" (cost) claims, i.e. not to EOT. There is no reference in the original paragraph to compensation claims, but in the revised 1st edition it expressly states that the updating approach is included because it relates to (cost) compensation claims.

4. This suggests that the sequential approach of updating Contractor delay 'events' will not apply for EOT assessment on either a contemporary or after the project basis, i.e. no first in time approach.

5. However, in a separate section headed "…*dealing with extensions of time during the course of the project*", para 3.2.12 in the final version of the Protocol repeats the same updating methodology as indicated in para 1.4.7, but this time without reference to compensation claims. **This is contradictory.**

6. Where an Employer event occurs during an existing Contractor event, the guidance in paragraph 3.2.12 is still telling analysts to update the whole of the first (Contractor) event, and to then go back in time to the start of the next event and update that, rather than updating the programme to the start of an Employer event, taking account of the delay effects up to that date. The 2nd arising event will consequently not appear to affect the date of the completion of the Works, until any such time as its effect on that date exceeds the effect of the first event, at which point the analysis will show a sequential delay. So whatever the concurrency guidance said (whether in bold or otherwise), by following paragraph 3.12, concurrency (in the old 2002 sense) would never occur, for a contemporaneous analysis.

It's not clear whether this was an oversight, or whether it was the SCL's compromise of sneaking an argument on the sequential updating/first in time point into the guidance, quietly via the back door[116].

In any case, apart from the anomaly in para 3.12, the 'first in time' / sequential updating of whole events approach did not get through the consultation.

[116] The author of this paper wonders whether the committee's main consideration may have been the limitations of the programming software, but this suggestion may be wrong.

22. THE SOCIETY OF CONSTRUCTION LAW PROTOCOL 2nd edition 2017

22.1 Overview

15 years have now passed. Just like that. This time, the SCL has pushed through what it appears to have wanted to do in the initial draft.

It is understood that a consultation process was again undertaken. How transparent the process was is unknown. It's noted though that rather than justifying the new concurrency approach based on feedback from the consultation, it's stated to be based on recent legal precedent.

Regardless, the 2nd edition essentially incorporates the 2001 consultancy position in most regards, by:

i) Making statusing of the programme with mitigation measures prior to updating the Employer event, contingent upon "approval" (of the mitigations) by the Contract Administrator

ii) Expressly and unambiguously applying the separate sequential updating rule to all contemporaneous/prospective assessments (instead of it being included as a single rogue provision, contradicting and conflicting with the headline guidance)

iii) Re-introducing the first in time rule, this time with its own section of express clauses within the concurrency guidance (instead of being tucked away at the end of Appendix 5)

iv) And, as a bonus, introducing an express requirement for the Contract Administrator to actively investigate the existence of concurrent delay when impacting delay events.

Key provisions are included in Appendix F of this report.

Points 2-4 above seem to mean that the poor Architect who, according to the JCT Contract, is supposed to form an opinion as to whether the Works are delayed beyond the Completion Date by a Relevant Event, and if so give an extension of time based on a fair and reasonable estimate, now has to go rooting around looking for concurrent delay, and come up with an assessment of future effects of ongoing Contractor delay events. No doubt, he/she will need some help from delay analysts!

With regards to point 2 above, the method of separate and sequential updating effectively appears to provide for the analyst to:

- Identify any Contractor risk event which begins before a Relevant Event and is ongoing when the Employer event starts

- Update the programme, to include the whole of that Contractor event until it ceases (assuming the effects of such are known)

- Then go back in time from the end of the Contractor 'event' to the start of the next Relevant Event, impact that event into the new extended programme, and see if it pushes the date out now.

It's not clear how the terms of the JCT contract, for instance, provides for such a methodology, nor the terms of any standard form.

This kind of analysis likely doesn't reflect the agreement of the parties (this author has never seen such a provision in a construction contract), but is perhaps just something that suits the software. This would be back to front. The software should suit the obligations. There appears to be no legal authority for this method, it never being something which the judges appear to have considered.

22.2 The scope of the guidance

Paragraph 10.4 refers to "*the situation where two or more delay events arise at different times, but the effects of them are felt at the same time*". What situations does this cover exactly?

The early UK court cases including *Malmaison v Henry Boot 1999* (see Appendix E and section 25 below) in which the topic of "concurrent delay" was first raised in relation to extensions of time, appeared to consider situations where competing events related to a single critical path or single activity (or the whole of the works, including the then critical path/activity). This author suggests that this is the traditional understanding in the industry of the issue of concurrent delay, and the issue which the 1st edition of the Protocol contemplated.

However, concurrent delay can also arise in relation to so called "bottleneck delays", in which progression of a single critical path is jointly dependent upon two separate preceding paths which are independent from one another.

An example of bottleneck delays was explained to the author of this report by a delay analyst in the following terms:

- a bridge may be behind schedule on both girder fabrication and pier construction. Both teams are working on concurrent critical paths and separately pushing to minimize the delay by completing the piers and girders so that the girders can be set.

It seems in fact, that a similar situation (two path concurrency) was found to have occurred in the recent case of *Thomas Barnes & Son Plc v Blackburn with Darwen Borough Council* (2022) (See Appendix E), in which Justice Davies held that there were concurrent delays to different paths of activities, upon the completion of both of which, a subsequent critical activity could commence (in that case concrete topping on a pre-fabricated floor slab).

It's noted that whereas Para 1.4.1 of the 1st edition of the Protocol stated (in bold font) that, "*Where Contractor Delay to Completion **occurs** concurrently with Employer Delay to Completion, the Contractor's concurrent delay should not reduce any EOT due*", Core Principle 10 of the 2nd edition states, "*…Where Contractor Delay to Completion **occurs or has an effect** concurrently with Employer Delay to Completion, the Contractor's concurrent delay should not reduce any EOT due*".

It is submitted that this change *may* be in view of considering 2 path bottleneck delays as well as *Malmaison* type delays.

A third situation in which the courts (*Saga Cruises v Fincantieri* 2016[117] and by one interpretation *Adyard v SD Marine Services* 2011) (See Appendix E) have applied concurrency authorities, is to the general principle of critical path analysis (irrespective of bottleneck delays). They have used the concurrency authorities – which were originally applied to situations of delay events relating to a particular path or activity – in order to give the appearance that it in some way justifies the general 'rule' that an Employer delay event needs to be on the critical path. This third situation (which is an alternative way of looking at concurrency as if it is not a distinct principle at all – notwithstanding that the *Malmaison* scenarios appear to prove otherwise) is covered elsewhere in the SCL's guidance.

22.3 Reason for the first in time guidance

With regards to the 'first in time' approach (see point 3 in section 22.1 above), guidance provides that where an Employer Delay *"occurs after the commencement of the Contractor Delay to Completion but continues in parallel with the Contractor Delay*", there is no EOT entitlement (until the effect of the Contractor event has expired). The SCL asserts that this guidance is included in order to comply with the critical path rule.

But guidance on the critical path rule is already provided within core principles 5,8 and 9, where it's stated that for an extension of time, the Employer risk event needs to be on the critical path. What then is the purpose of providing separate concurrency guidance which makes the same point?

It may be that it is intended to relate specifically to bottleneck delays. However it does not appear to be the case that the guidance can be exclusively directed towards bottleneck delays (the example given in paragraph 10.9 of the guidance would not appear to be a bottleneck delay, as the effects of the delay in the example do not start on the same date). In any case, there's no statement in the guidance to that effect.

Also, as seen in section 25 and Appendix E below, the legal precedent on which the SCL relies to introduce the guidance, does not consider bottleneck delays.

So why the separate guidance in the concurrency section?

This report tentatively suggests that the answer may be related directly to point 3 in section 22.1 above, the (now re-instated) separate sequential updating for prospective analyses.

The 'first in time' approach appears to act as: i) a 'justification' for the prospective updating approach and ii) a mechanism which would provide the same result on a retrospective/after the event basis.

The word "justification" is put in inverted commas above on the basis that if the only purpose of something is to justify something else, then neither would seem to have justification. Indeed, it is submitted that neither does have any justification.

As stated above, it is tentatively submitted that it is because of this updating guidance that situations such as is given in the example in paragraph 10.7 of the

[117] [2016] EWHC 1875 (Comm)

guidance (the effects of the Employer event appearing to fall within the effects of the Contractor event), will appear to occur. Updating the whole of the first Contractor event before moving to the Employer event may be precisely why the Employer event appears to be non-critical.

Either way, clearly, it seems that the SCL Protocol Committee, or some part of it, had appeared to want to get similar provisions in since 2001 (see point 4 of section 20 above). The delay analysts may need it for their software. Perhaps they also find it to be the logical approach (however sections 24+26 below show that it does not appear in fact to be the logical approach). It could also be noted that these approaches make the industry dependent upon their profession's software based analytical services, rather than upon the judgement and feel of the architect. It also seems to be, as we will see in the next section (which may be an unintentional consequence) a breeding ground for disputes.

There is no way of knowing which factors were in play and how the discussions within the committee developed. It may have been no more than an instinct for which no clear explanation could be provided. At the end of the day, mistakes are inevitable in a work of this nature, no matter how expert the drafters and how earnest their intention. It could conceivably also be co-incidental that similar looking approaches appeared to be included in the 2001 consultation document (although it would seem quite high odds).

22.4 Effect of the first in time guidance

The first-in-time approach clearly appears to have the effect of missing out valid random parts of Contractor entitlement, by disregarding parallel delays.

One might think that it cuts both ways when the Employer event arises first, but that's not the case. The Architect is not calculating Contractor delay, he/she is calculating Employer delay. As previously mentioned, Contractor delay will come out in the wash in regards to the date the Contractor finishes. Any calculated Contractor delay is thrown away by the analyst anyway, as measuring it serves no purpose.

23. TIME OWNERSHIP ON A CONSTRUCTION PROJECT

Traditionally, and generally speaking, the Contractor (it is submitted) has three primary obligations in relation to time. The first obligation is to commence the Works. The second obligation (in the case of the JCT contract at least) is to proceed with the Works, "regularly and diligently". The third obligation is to complete by the Completion Date.

There may be some other obligations, but the key point is that generally speaking, construction contracts do not include programmes as a contract document. The reason why was explained in Eggleston's 1997 book "*Liquidated Damages and Extensions of Time in Construction Contracts*" 2nd edition, in the following terms:

"If a Contractor's programme was found to be a contract document it would bind not only the Contractor to perform to it but also the Employer to facilitate such performance. This is, the Employer's duty to avoid prevention which in the normal circumstances extends only to not obstructing the Contractor in his obligations to complete on time, could be widened so that prevention could apply to programme requirements. For this reason, amongst others, most Employers avoid any programme, tender or otherwise, being incorporated in the contract documents."

Even in modern forms of contract where the Contractor has secondary obligations to submit a programme for approval and update it, other than in the absolute exceptionally rare circumstances of the programme being a contract document, it is submitted that the Contractor has no obligation to undertake the works in accordance with the programme (although in NEC contracts in particular, there is a particular focus on revising the programme where the Contractor's intentions change).

Eggleston says,

*"The point came up in the case of Pigott Foundations Ltd v Shepherd Construction Ltd (1993) where the sub-Contractor argued that it was not under any obligation to do more than complete the sub-contract work within the time allowed and that it was not bound by any particular rate of progress…**The judge held that in the absence…* **(e.g.)** ***a contractually binding programme), the sub-Contractor was entitled to plan and perform the sub-contract work as he pleased provided he finished within the time fixed for the sub-contract."***

The Judge made reference to clause 11.8 of the sub-contract which included a requirement for the sub-Contractor to undertake its works reasonably in accordance with the progress of the main Contractor's Works, and to the submission of a sub-contract programme. The Judge in *Pigott* relied on *Wells v Army Navy Co-operative Society (1902),* a Court of Appeal authority.

Eggleston refers to various other cases concerning programmes and method statements, with similar outcomes[118]

In the first edition of the Society of Construction Law's Protocol on Delay and Disruption (2001), it was pointed out that if a programme was included as a

[118] *Yorkshire Water Authority v Sir Alfred McAlpine & Son (Northern) Ltd (1985), Holland Dredging (UK) Ltd v Dredging and Construction Co Ltd (1987) and Blue Circle Industries plc v Holland Dredging (UK) Ltd (1987), Havant Borough Council v South Coast Shipping Company Ltd (1996).*

contract document, then the Contractor would be able to claim relief from liquidated damages if any of the activity durations including the contract were unachievable/impossible. This wording was removed in the 2nd edition of the Protocol published in 2017.

What's vital to recognise is that a programme (or method statement) submitted after the contract has been entered into and which is not a contract document, does not strictly bind the Contractor.

The point has some important consequences for delay analysis in general, and for the issue of any consideration that concurrency might be relevant to an extension of time claim.

1. The fact that the Contractor has not progressed works in accordance with the programme does not prove that the Contractor is 'in delay'. *
2. The Contractor generally has a right to re-sequence the works as it considers appropriate[119].
3. The Contractor can not be said to have caused delay until it has failed to achieve completion by the proper completion date.
4. The Contractor has a right to make up 'lost' time

Furthermore, the approach of impacting Contractor events is impractical because an event can not always be identifiable.

This all appears to be a major problem for concurrent delay arguments.

As Justice Seymour commented (on a related matter) in 2000 in the case of *Royal Brompton*[120], "***The validity of the point depends…upon the assumption that it was either not open to* (the Contractor) *to seek to improve… or that, as a practical matter, it was impossible…to do so…I do not consider that assumption to be a proper one to make***".

*Even where a contract contains an obligation for the Contractor to progress the Works in accordance with the programme it has submitted, failure to do so will not be proof that the Contractor can not finish on time, and would not represent a breach of the requirement to finish by the stated date.

[119] the Works are generally in a logical sequence which is fixed to an extent, but there are always variables. There are no instructions in the box. Indeed, the sequencing of the Works is traditionally one of the Contractor's key skillsets

[120] See the later discussion on concurrent delay

24. THE PRACTICALITY OF THE FIRST IN TIME APPROACH

We concluded above that the Society of Construction Law Protocol 2nd edition, recommends a first-in-time approach to assessing concurrent/parallel delay.

When practical considerations are taken into account, though it seems to highlight some problems with the approach. If for instance one asks:

What if one ongoing event had more potency than the other event during any particular period?
- When was the full duration of the Contractor event known for certain?
- When was it known that the Contractor could not make the time up?

or:

- Is the Contractor event considered the same ongoing event if the nature of the event for which the Contractor is responsible changes?
- Is the Contractor event the same ongoing event if the nature of the event is the same, but if the extent of the event (productivity/resource reductions) vary?
- What happens if there is a break in the event? What if the Employer risk event had started first, then went away, then came back after the Contractor event had started? or visa versa?
- Are events assessed as starting at the same time if they start at some point on the same day? If so, is it a working day or a calendar day?
- When can it be said that an event truly started?

The rule is not just arbitrary, and not just something which disregards valid entitlement, it appears to be a factual nonsense. Whether it's the intention or not, it is a charter for analysts to search for and analyse Contractor delays, which is arguably largely or completely unnecessary in the first place, and moreover, a recipe for endless disputes, not least over the questions raised above, all of which will leave parties lost in an alternative programming software universe, arguing over things which are in reality completely meaningless.

In fact is seems farcical to think that parties to construction contracts all around the world, might be spending substantial sums arguing about these meaningless concepts. **They might as well be arguing about whether they are required to put on their left boot or their right boot first when they go to Site. Literally, such a dispute would appear to be of no less value and of no less significance, than the disputes created by the first in time approach.**

A *further* problem is created by the fact that the SCL's rules make no reference to restricting the application of the rule to competing delay events of the same potency. Imagine a situation for sake of argument, where the Employer is responsible for providing power, and power fails for 2 days so no work can be undertaken. But those 2 days happen to be on days 2 and 3 of a 6 day period in which the Contractor has lost 50% of its labour. In that case, following the SCL's rules there's no extension of time, yet clearly on days 2 and 3, the Employer event is causing (additional) delay. That highlights the folly of the updating approach *and* of the 'concurrency' rule.

The only logical justification for the SCL's first in time approach (but not the sequential updating approach), could be that it intends to be a rough way of measuring delays on the assumption that the event which arises second is effectively a pacing delay[121].

Example:
Employer event: Days 13-16 100% suspension (on its own causes 4 days delay)
Contractor event: Days 10-19 100% suspension (on its own causes 10 days delay)

If the Architect knows the Employer delay was only a pacing delay because the Employer knew that the Contractor wasn't ready, then it's understandable that there should be no EOT.

But the Architect/Engineer doesn't need to make arbitrary first in time assumptions like this, and they shouldn't be imposed on him/her. Unlike the forensic delay analyst, the Architect or Engineer knows what is going on at the time, and is able to make a more informed judgement than making an assessment strictly based on which event started first. Who is the retrospective delay analyst to later correct him/her with some arbitrary rule?

As Justice Dyson said, "*it is a question of **fact** in any case".*

As Justice Lloyd said in *Hammond 2002, "That is one of the reasons why construction contracts appoint…architects, engineers, surveyors or other contract administrators…as they are best able to gauge such matters and their possible effects. To upset the judgments of such people in an arbitration or litigation requires similar first-hand evidence, not desk studies based on documents"*

Regardless, nowhere is such justification provided for the SCL approach. Instead it's presented as a theoretical causation argument which is purported to be supported by legal precedent such that it doesn't matter whether the Employer was pacing or whether there was an intervening neutral event for which the Employer takes the contractual risk but which is entirely beyond its control.

[121] i.e. where a party has slowed down to keep pace with the other party

25. SUMMARY OF ENGLISH COURT DECISIONS

Appendix E to this report contains a detailed review and analysis of legal authorities and of other notable commentaries on the topic of concurrent delay. It is recommended but not essential, to review the appendix before proceeding.

Below is a list of the legal cases reviewed. Non-construction industry cases (irrespective of whether they made reference to the construction industry) are shaded out in grey.

In the final 3 columns, entries are included identifying firstly a primary interpretation of the judgement (the most sensible analysis of the findings in context), and an alternative secondary/tertiary interpretation where applicable. The categories are identified by numbers which are explained in the key underneath the table.. Where there is a clear presumption of the primary construction, it is shown in **bold** font. The SCL's 1st in time approach is depicted with a red star

Case	Year	Court	Contract	Primary Construction	Secondary Construction	Third Construction
Balfour Beatty Construction Ltd v Chestermount	1993	High Court	JCT 80	2	1	
John Barker v London Portman Hotel Ltd	1996	High Court	JCT 80	1	2	
Henry Boot Construction (UK) Ltd v Malmaison Hotel	1999	High Court	JCT 80	3	2	
Royal Brompton Hospital NHS Trust v Frederick A Hammond	2000	High Court	JCT 80	**2**	*	
Balfour Beatty Construction Ltd v London Borough of Lambeth	2002	High Court	JCT 80	**4**		
Hammond 2002	2002	High Court	JCT 80	**1**		
Motherwell Bridge Construction v Micafil Vakuumtechnik	2002	High Court	FIDIC	1	2	
Steria Ltd v Sigma Wireless Communications Ltd	2007	High Court	-	**6**		
De Beers UK Ltd v Atos Origin IT Services UK Ltd	2010	High Court	-	1		
City Inn v Shepherd DISSENTING	2010	Scottish IH	JCT	1	2	
City Inn v Shepherd MAJORITY	2010	Scottish IH	JCT	**5**		
Adyard Abu Dhabi v SD Marine Services	2011	High Court	-	7	2	*
Walter Lilly v Giles Mackay	2012	High Court	JCT	2	4A	
Saga Cruises v Fincatieri	2016	High Court	-	7		

AS REASONABLY-PLANNED IMPACTED	1
ACTUAL PROGRESS NEEDS TO BE CONSIDERED: EMPLOYER EVENTS HAVE TO BE A CAUSE OF DELAY TO AN IN-PROGRESS OR READY-TO-COMMENCE ACTIVITY	2
DELAY IS A MATTER OF FACT IN EACH CASE	3
DISREGARD EMPLOYER DELAYS WHICH ARE PARALELL WITH CONTRACTOR DELAYS	4
NO ENTITLEMENT EXCEPT FOR TURE CONCURRENCY	4A
ATTRIBUTE DELAY ON A COMMON SENSE BASIS TO THE DOMINANT CAUSE, OR ELSE APPORTION DELAY	5
ATTRIBUTE ALL OF THE DELAY ON THE PROJECT TO THE PARTY WHICH CAUSED MOST DELAY	6
THERE IS NO DISTINCT PRINCIPLE OF CONCURRENCY, IT JUST REFERS TO CRITICALITY	7
FIRST IN TIME	*

Below is a summary of the cases, identifying which case could ***possibly*** be interpreted as providing for the 'first in time' approach taken by the SCL:

Case	Year	Contract	COULD IT POSSIBLY BE CONSTRUED AS REQUIRING 1ST IN TIME APPROACH?
Balfour Beatty Construction Ltd v Chestermount	1993	JCT 80	**NO**
John Barker v London Portman Hotel Ltd	1996	JCT 80	**NO**
Henry Boot Construction (UK) Ltd v Malmaison Hotel	1999	JCT 80	**NO** (Question of fact)
Royal Brompton Hospital NHS Trust v Frederick A Hammond	2000	JCT 80	YES based on a couple of words, but not when the judgement is analysed
Balfour Beatty Construction Ltd v London Borough of Lambeth	2002	JCT 80	**NO** (but takes a total prevention approach)
Hammond 2002	2002	JCT 80	**NO**
Motherwell Bridge Construction v Micafil Vakuumtechnik	2002	FIDIC	**NO**
Steria Ltd v Sigma Wireless Communications Ltd	2007	-	**NO**
De Beers UK Ltd v Atos Origin IT Services UK Ltd	2010	-	**NO**
City Inn v Shepherd DISSENTING	2010	JCT	**NO**
City Inn v Shepherd MAJORITY	2010	JCT	**NO**
Adyard Abu Dhabi v SD Marine Services	2011	-	Arguably, on a few words out of context, but **not when properly analysed**
Walter Lilly v Giles Mackay	2012	JCT	**NO**
Saga Cruises v Fincatieri	2016	-	**NO** (reviews which event finishes last)

The recent *Thomas Barnes*[122] case is excluded as it's post Protocol. The charts above also give the SCL the benefit of 'doubt' on *Adyard* by listing it as a tertiary interpretation, but in fact, Appendix E appears to clearly prove that Justice Hamblen did not have a first in time approach in mind.

Either way, it seems pretty clear that the SCL's contention that the approach represents, "*the consistent position taken in recent lower level English court decisions*" is not accurate.

The approach appears to be a misinterpretation of *Royal Brompton, Adyard* and *Saga Cruises*.

Denying EOT entitlement in a situation where an Employer Delay "*occurs after the commencement of the Contractor Delay to Completion but continues in parallel with the Contractor Delay*", is almost certainly not what Justice Seymour had in mind in *Royal Brompton* (See Appendix E). Certainly he does not go so far even if it's something he might have considered a possibility (which seems very unlikely from the judgement).

This paper concludes that all that Justice Seymour (*Royal Brompton*) and some of the other judges were saying, is that if the Employer is delayed in connection with an activity, but such Employer delay has ceased by the time the preceding activity (to the activity to which the Employer event is related) is complete, then the Employer

[122] Thomas Barnes & Sons PLC (in administration) v Blackburn with Darwen Borough Council [2022] EWHC 2598 (TCC)

event has no effect and is not a cause of delay. As Justice Hamblen put it in *Adyard*, there can be no extension of time where the Employer supplied paint later than planned, but in any case *before* the wall which it is to be applied to has actually been built. Justice Dyson (*Malmaison*) may have meant more, but there is no first in time approach, in fact he expressly states that prescriptive one-size-fits-all rules can not be applied.

Adyard is a jumble, but it does not provide for a first in time approach (see Appendix E). Justice Hamblen has either purposefully endeavoured to merge the concurrency principle with the critical path principle, or is merely taking the approach which this report ascribes to *Royal Brompton* (see previous paragraph).

Saga Cruises refers to "concurrent delay" and makes reference to *Royal Brompton*, and other authorities mentioned above, but the judge is actually just considering the issue of whether a delay was (retrospectively) on the critical path or not. It's nothing to do with a situation where, as the SCL puts it, "(an Employer delay event) *occurs after the commencement of the Contractor Delay to Completion but continues in parallel with the Contractor Delay*". There's no reference in the reasoning to when delay events arose (the judge didn't even look at events which took place prior to the completion date stated in the contract, which was 2 weeks prior to actual completion). The issue was when the activities (Justice Cockerill assigned liability based on which party's scope the item was in) finished, and specifically which one finished last. Neither *Adyard* nor *Saga Cruises* considered bottlenecks.

The other authority which seems to come close what appears to be the Society's position, is Justice Lloyd, in the *London Borough of* Lambeth case in 2002, where in a one liner he said out of nowhere that the Contractor has no EOT entitlement for parallel delays (although he seemed to change his mind a few months later). But that wasn't on an arbitrary first come first served basis, and thus appears a much more sensible solution than what the Protocol appears to have come up with.

Although there are oddities about some of the more recent judgements, including *Adyard* and *Saga Cruises*, this report concludes that as many as 16 different U.K. judges (including the Scottish appeal case) have reached a different conclusion to the SCL, and that **none** have reached the SCL's conclusion.

Even if the SCL is referring to critical path authorities, the position does not appear to be totally "consistent" (see Section 12 above). Furthermore, whilst critical path analysis does take a first in time approach, not all first in time approaches are critical path analyses, and so critical path case law can not in any case by itself justify a general first in time approach to concurrent delay.

Such theoretical considerations would – it is submitted - in any case likely be trumped, if they existed, by the laws on damages (if properly argued) which provide that the Employer should recover damages to the extent which puts him in the same position as if the Contractor had performed the contract (see Sections 16-19 above).

Legal advice would be required on all points. THIS PAPER DOES NOT CONTAIN LEGAL ADVICE. THIS PAPER DOES NOT PROVIDE ADVICE OR GUIDANCE, IT IS A DISCUSSION PAPER, AND IS NOT INTENDED TO BE RELIED UPON

26. SOME HELPFUL WORKED 'CONCURRENCY' EXAMPLES

The reason why the judgements are so unhelpful, is that instead of relatable examples, we are given words and phrases largely in a vacuum such as "concurrent", "truly concurrent", "parallel", "causative potency", "effective cause", "dominant", "apportion". Even normally straightforward words such as "hypothetical" "theoretical, "actual", "impact", "effect", "arose", "independent", "already" become a riddle which require a pen and paper.

One definition we do have – of concurrent delay ("*a period of project overrun which is caused by two or more effective causes of delay which are of approximately equal causative potency"*), itself contains one subjective variable and two undefined terms. And whilst it has a legal definition, we don't know for sure what the legal significance of it is, even *if* we can work out how to identify it.

Even the judges seem to get confused at times, so it's no wonder that everyone else does.

So let's try to look at some examples which (unlike unclear words and phrases) are helpful.

Example 1 (Dominant cause?)

It's worth bearing in mind a point made by the Employer's delay expert in the *Royal Brompton* case, where he said, *"Distinguishing between 2 separate concurrent causes of delay…and 2 interacting causes…can be difficult in practice".*

We aren't privy in the judgement to the definitions which the expert had given to these terms, but they may be relevant to some of the comments made by some of the judges.

In the scenario below, the competing events are not independent of one another, but act together to effectively multiply the effect of one another. Let's say the Employer supplies the rollers to apply the paint with, and the rollers are too small so each painter that turns up can't paint as quickly. It's a far fetched scenario, but a good one to demonstrate the point.

Employer event: Days 1-10 50% reduction in roller size (on its own causes 5 days delay)
Contractor event: Days 1-10 20% less painters than planned (on its own causes 2 days delay)
Total delay = 6 days delay (5*1.2)

In this situation, the strictly correct approach is to provide for 5 days EOT. But a more rough solution, if assessing delay using an effect and cause method, could be to simply disregard the smaller cause and allocate the whole of the 6 day delay to the dominant cause.

Perhaps it's something like this that Lord Osborne had in mind in *City Inn*.

But the question of which event occurred first, is irrelevant as it is in other scenarios. Interesting to note by the way, is that if looking at the delay on a cause and effect basis (as opposed to an effect and cause basis), there is no need to consider the Contractor delay item at all. It's just a case of measuring the effect of the Employer delay.

Example 2 – True cause?

Another meaningful concurrency question would be a scenario where for example the Employer is supplying the materials, and on one day supplies 40% less materials than planned, but on the same day none of the Contractor's labour arrives. Then a question arises of whether the Employer event should be measured, and different judges have reached different conclusions on that point. Perhaps that is something that could be specified in the terms of a contract, rather than leaving it to the Architect's discretion. This might have been the kind of scenario which Justice Dyson had in mind. But regardless, it doesn't include a first in time approach.

Example 3 – True concurrency

Let's imagine a project where for whatever reason, information is issued by the Employer on a daily basis, which enables the Contractor to progress the works during that day. The information is issued in documents which are delivered by courier to Site by the scheduled Site opening time (the Employer organisation doesn't do email), and put in the head operative's pigeon hole.

Let's say that on some days during the project, the Contractor's operatives do not arrive at Site. And for the sake of argument, on some days during the project, the Employer fails to issue the information.

Let's say that by coincidence, every time this happens, the 2 events happen on the same day. Both independent of one another. The Employer did not know that the labour wasn't there, and the operatives team didn't know that the Employer wasn't going to issue the information.

This happens, believe it or not, 30 times during the project. Apart from that, there are no delays on the project, everything goes exactly as needed in order that the Contractor would finish on the scheduled completion date (if it hadn't been for the delays previously mentioned).

On one argument, the Employer information has made no difference. The labour wasn't even there to use it, so the lack of information has caused no actual delay at all. Any delay caused by the Employer is entirely hypothetical.

Result. No delay, no extension of time. The Contractor is 30 days late, and must pay 30 days delay damages to the Employer.

However, looking at it the other way, if the labour had arrived at Site, as planned, then the Contractor would not have been able to do any work anyway. The failure of the labour to turn up, hasn't made any difference at all. The delay is entirely hypothetical. The Contractor has caused no actual delay. No Contractor delay. No Liquidated Damages.

Example 4 – First in time

Now let's look at another hypothetical example, this time from a first in time approach.

The Employer has another project. On this one he issues information twice each day. The information for the morning's work is supposed to be in the head operative's pigeon hole when the Site opens, and the information for the afternoon's work arrives during the lunch break.

Let's say that on two days during the project, the Contractor's operatives do not arrive at Site. And for the sake of argument, on the afternoon of the same days, the Employer fails to issue the information.

Both independent of one another. The Employer did not know that the labour wasn't going to come in the afternoon (or if you prefer, the Employer didn't know that the operatives weren't there), and the operatives team didn't know that the Employer wasn't going to issue the information.

Apart from that, there are no delays on the project, everything goes exactly as needed in order that the Contractor would finish on the scheduled completion date (if it hadn't been for the delays previously mentioned).

The Employer information has made no difference. The labour wasn't even there to use it, so the lack of information has caused no actual delay at all. Any delay caused by the Employer is entirely hypothetical. By the end of the morning, the Contractor was already half a day behind. If the Contractor had turned up at lunch time, then it would need to spend the afternoon doing the work which it was supposed to have done in the morning, and so – other things being equal - wouldn't have even needed the afternoon's information until at least the next morning (when the information arrived) in any case.

Result. Well in this case there's definitely no Employer delay. We know this because the Employer event occurred during a period of Contractor delay. No Employer delay, no extension of time. This has happened twice, so the Contractor is 2 days late, and must pay 2 days delay damages to the Employer.

However, looking at it the other way, if the labour had arrived at Site in the morning, then the Contractor would not have been able to do any work anyway during the afternoon. Or if it had turned up at lunch time, then it would have fully caught up with the information available by the end of the day. The failure of the labour to turn up, hasn't made any difference at all to the afternoon's work. The delay relating to the afternoon is entirely hypothetical**.** The Contractor has only caused 1 day actual delay. **It's just the same as example 3. The Contractor should get the whole of** (or none of) **the period of the Employer event, just as it does with the true concurrency situation in example 3. The same would apply if the Employer delay happened in the morning. First in time is devoid of logic. First in time is no more than an illusion.**

THE WRONG PATH

PART 6

CONCLUSIONS AND THE WAY FORWARD

27. OVERALL CONCLUSIONS (see also the Postscript on page 196)

1. Arbitrary and unreasonable liquidated damages

In 19 years of study up to 2017 (the year of the SCL Protocol 2nd edition), timely performance of the construction phase of projects in the U.K. outperformed timely performance of the Employer's design phase 15 times, compared with the respective periods planned by the Employer.

Contractors are not faultless by any means. It's noted though that in government statistics reviewed, Contractors outperformed Employers in Key Satisfaction Performance Indicators in **all 3** of their respective categories in 9 out of 15 years. Not that it is a determinative statistic, but it's also worth noting that contractors' overall satisfaction with employer's performance was less than the employer's satisfaction measures with the contractor in all 15 years studied (15-0). And yet it is the contractor who has to report its progress in detail, and the contractor who is typically assumed to be responsible for delay.

Bearing in mind that delay damages are typically capped - if at all - at 10% of the contract price, and that Contractors' profit margins are often relatively speaking so low, one late-running project might wipe out all of the Contractor's profit on several jobs. It's easy to see how delay damages might contribute substantially towards the insolvency problem from which the industry suffers. This seems to suggest that it's vital to the sustainability of general contracting model, that delay damages /LDs are applied in a reasonable manner. In fact however, 21st century Employers use at least 13 different tools (section 2) to tip the balance of risks against the Contractor in regards the application of LDs.

These tools include critical path analysis and first in time approaches to concurrency, neither of which have any theoretical, logical or practical merit.

2. A fit for purpose extension of time mechanism

With a fixed completion date, there's no need for the Employer to prove what *a reasonable time for completion* was in relation to the original scope of Works, because this period is replaced/represented by the period stated in the contract, as adjusted for Employer risk events. On the same basis, the extension of time should represent *a reasonable additional time* to complete the works. A fit for purpose model therefore adds to the Completion Date stated in the contract, a reasonable time for Employer risk events, and the Contractor's obligation should be to complete within that revised period.

As sections 6-8 of the report show, this approach was reflected in the prevention principle cases, discussed in the courts in the 19th century (often considered an era of hardship and inequity). As sections 9-11 of the report explain, this largely reflected the approach taken in the industry up until the dawn of the 21st century, when computer planning software began to be applied to the task of assessing extension of time entitlement by means of critical path analysis.

The report (Section 3) identifies 4 key requirements of a fit for purpose extension of time clause. The critical path approach and first in time approaches to concurrent/parallel delay, are not in accordance with ***any*** of the 4 parts of this fit for purpose model.

3. Critical path method

Rather than measuring Employer delay to or beyond the Completion Date (the date stated in the contract, as adjusted by any existing extensions that have been granted), critical path analysis measures delays caused to the expected date of Practical Completion. Section 5 shows that it randomly allocates entitlement based largely on which event started first or which party is most delayed, and is a half-way house between an assessment of when the Contractor *could* have finished on account of the Employer's delays, and a prevention approach which assesses when it *would* have finished but for those delays. Critical path analysis is fundamentally unfit for purpose when applied to assessing extension of time entitlement.

The critical path approach in English law seems to have come about without any contractual or legal examination, and potentially due to a simple misunderstanding as to its meaning. There appear to be good reasons why critical path analysis may (in many cases) be invalid for extension of time assessments, contractually and/or legally. The first reason is a straight contractual approach (Section 18). The second, relating to the laws on damages, or in some jurisdictions 'no loss' laws (Sections 16-17,19).

Where a contract expressly calls for a critical path analysis, then the issues discussed in section 17 of this report (for English law) would need to be considered when determining whether the damages clause can be enforced. Parties might wish to note that should the common law allow liquidated damages /employer delay damages calculated by reference to critical path analysis, it would likely be on the legal basis that critical path analysis represents an express exclusion of the 400 year old legal principle that a party can not benefit from or rely upon its own wrong (section 17.2 & Appendix A). Similar principles may apply in other jurisdictions where such arguments might serve as legal defences to damages (see section 19).

Largely as a result of the application of critical path analysis and wider attitudes towards extensions of time which have developed in the last 2-3 decades, the delay management exercise has become a collateral project in its own right, incumbent upon any project of size. It's not clear what the construction industry is paying worldwide annually on delay disputes and related activities as a consequence, but it must be in the billions of dollars, with the bill paid for by a combination of Employers and contractors (and sub-contractors), but whilst putting unacceptable risk on contractors, likely ultimately mostly paid for by employers.

And yet no explanation seems to be provided of what benefit the parties to the contracts obtain from the additional resources and expenditure associated with the critical path analysis.

As explained in Section 15 of the report, critical path approach to extension of time has the following potential **benefits**:

i) it creates work for consultants and (especially) delay analysts
ii) it provides for Employers to elicit random damages which are arguably illegitimate and arguably akin to a form of income (but which are in any

case *at least* partially offset by the costs incurred as a result of the critical path assessment, contract administration, and related disputes[123])

As also explained in Section 15, a critical path approach to extension of time appears likely to have the following **disbenefits**:

i) it does not provide substantively the right fit for purpose measure of entitlement, as it disregards sub-critical employer delay to the contractual completion date (See Sections 3, 5, 14.1,17).
ii) the burden of proof incumbent upon the contractor as a result of the complexity of critical path analysis is wholly unreasonable (See Section 13).
iii) it very likely directly slows projects down (See Section 15.3)
iv) related planning obligations may impede the Contractor (See Section 15.4)
v) it likely damages the relations between the parties (See Section 15.5)
vi) it inevitably in some cases causes complicated and costly disputes between the parties (see whole paper)
vii) there are various extensive technical issues with the approach, as summarised in Section 14 and 14A
viii) in most forms of construction contract, the program is not a contract document and the Contractor does not usually have an obligation to proceed in accordance with the program arguably meaning that critical path approaches are conceptually invalid (See Section 14.9)
ix) it may not accord with the laws on damages in various legal jurisdictions or in accordance with some construction contracts (Sections 16, 17)
x) It forms a major part of a series of approaches to general contracting which represent a huge imbalance of risks tilted against the Contractor (See section 2). It likely sends many contractors into insolvency, and is not a sustainable approach to maintaining the survival of the general contracting model (See section 1).

The Society of Construction Law Protocol 2nd edition suggests that a "common sense" approach should be taken to critical path analysis. This report suggests that a common sense approach would be to get rid of critical path analysis in relation to extensions of time entirely, in favour of something that reflects a more reasonable balance of risks between the Contractor and the Employer, which (unlike critical path analysis) is fit for the purpose, and which aligns with the fundamental principles of damages in most legal systems.

Use CPA for planning the project, use it for assessing prolongation costs perhaps, maybe use it in another industry, but not EOT in the construction industry.

The good news for construction is that there seems to be an argument that a critical path approach might be incorrect or invalid when it comes to some contracts including JCT and arguably FIDIC 1st edition, particularly in some legal jurisdictions.

Standard form contract drafters have the power to put that beyond doubt.

[123] More research would be required on this point, beyond the scope of this paper

4. Concurrent delay/ Parallel delays

There can be said to be generally 2 diametrically opposed approaches by the judges and commentators to parallel delays:

a) An approach in which the timing of Contractor delay is disregarded **b)** A prevention approach, with a seldom seen derogation that has to be searched for.

Traditionally, the approach taken in the construction industry in the 20th century, was that where there were 'parallel delays', the Contractor would get an extension of time but not prolongation costs, i.e. approach 'a' above, i.e. approach 'a' above.

This report suggests that that approach is the more appropriate from the point of view of the balance of risks between the parties, and (it is suggested) in terms of high level principles of law. Approach 'b' – and (especially) half way house approaches – appear to be recipes for limitless disputes.

The Society of Construction Law Protocol on Delay and Disruption (particularly in the 2nd edition, 2017) appears to take an arbitrary 'first in time' half way house approach, measuring the first (Contractor or Employer) event to arise/occur, and disregarding any other event whilst it runs in parallel.

The Society's drafting committee of the 1st Protocol seem on the face of it to have tried to get similar provisions incorporated in 2001/2002, but they appear to have been roundly rejected by the industry. This time the first in time approach has survived the consultation process, on the premise that it represents the consistent position taken by the English courts.

But the SCL's contention seems difficult if not impossible to support (see Section 25 &Appendix E). Although there appear to be oddities about some of the more recent English judgements, including *Adyard* and *Saga Cruises*, this report concludes that as many as 16 different U.K. judges (including the Scottish appeal case) have reached a different conclusion to the SCL, and that none have reached the SCL's conclusion.

Society of Construction Law President Lord Justice Coulson warned in an SCL paper in 2019, that concurrent delay (or specifically the concurrent delay clauses which he gave the green light to in a 2018 judgement in the Court of Appeal) will, "*continue to supply work to lawyers...for years to come".* It seems that if the construction industry continues to follow the guidance provided by the institution which Lord Justice Coulson is President of in his other role (the Society of Construction Law), then that guidance will also continue to supply work to lawyers (and delay analysts and others) for years to come, whilst seemingly failing to provide any benefits to the parties to construction contracts who partake in the concurrency game which the SCL's Protocol recommends or endorses.

From a practical point of view, the implementation of a first in time approach seems to be something which could be argued over endlessly. It appears to have no theoretical merit. The Protocol may for all this author knows, provide excellent guidance on many other points, and the SCL's work is no doubt an incredible endeavour which in many ways should be congratulated. But not on extension of time concurrency.

When Justice Dyson was considering in 1999 the fact that *"the claimant's delay analysis does not take into account any culpable delay on its part or actual progress at the time of the events relied upon",* and deciding that it was within the arbitrator's jurisdiction to consider such matters where applicable, he also said, "*it is impossible to lay down hard and fast rules*". The SCL Protocol's rules based approach seems on the face of it, regretfully, to be a good demonstration of that point.

It's not even clear why the guidance has come about. It doesn't seem to be explained in either of the Protocols, where the charter originated or who commissioned the SCL to undertake the exercise, or where its provenance comes from[124].

The JCT contract takes a very simple approach. It requires the decision maker on an interim basis to i) decide whether the completion of the Works is delayed or is likely to be delayed beyond the Completion Date by a Relevant Event, and ii) If so, fix an EOT on the basis of a fair and reasonable estimate of the delay beyond the Completion Date, by the Relevant Event, and iii) on a retrospective basis to make a fair and reasonable assessment of any additional entitlement.

There's no scope in those terms for external guidance to be imported telling the Architect that he/she must impact this event before that event, and disregard X if it falls within Y, or calculate whether there's concurrent delay before updating the programme for the Relevant Event. The same could be said for other standard forms. If that's what the contract drafters had wanted to provide, that's what they would have written.

The whole process by which these principles have been developed seems illogical. Construction industry representative bodies agree standard terms, which are then given interpretation by the judiciary at times out of context and/or in a perplexing or opaque manner, which is in turn given seemingly strained interpretation (with NO industry representation) by the SCL's effective law makers which is then applied by administrative, commercial and disputes professionals to contracts around the world, as disputes spiral[125].

The Protocol expressly states that it does not itself constitute legal authority, but the SCL does separately boast instances where courts have taken aspects of the guidance as authority. Furthermore, the Protocol itself states that the guidance will only be reviewed following contrary Court of Appeal authority[126] But regardless, in practice it is followed by practitioners around the world, and it is understood that adjudicators and arbitrators apply its provisions *as if* it was the law.

The status quo which has been established by the Protocol's extension of time concurrency rules, much like their critical path analysis rules, appears likely to be detrimental to the construction industry. Much of the SCL's guidance may have been helpful, but when looking at the concurrency guidance, it's no surprise that the industry is seeing ever growing demand for delay analysts, and arbitral institutions and the like appear to be reporting ever growing numbers of disputes. In fact it seems inevitable.

[124] much like this paper, except this paper does not recommend the industry follows the approaches which it contends, but rather that it might initially review such points which are made and take them into consideration
[125] This is this author's interpretation.
[126] although it is perhaps understandable that the SCL can't be expected to revisit the guidance every time somebody writes to them

5. Summary of conclusions

Eggleston wrote in 1997, **"*The analysis of causation…remains relentlessly attractive to academics…In the construction industry, the study of causation and the application of computers to the process is a thriving business*".**

The extension of time clause in the JCT contract, on which the English law and consequently the SCL Protocol have developed, is almost identical today to its 1980 equivalent. The last 25 years, however has seen – hand in hand with the rapid global expansion of the disputes industries - the development of the following principles:

- **The critical path approach to extensions of time**. The critical path approach appears to be an inappropriate way of assessing EOT entitlement on many grounds. This report suggests that it may in any case often be invalid on contractual and/or legal grounds.
- **Measurement of the effect of any particular** (critical path) **event which is** (in SCL language) **a Contractor Delay Event**, in addition to (in JCT language) Relevant Events.
- **First in time concurrency** (which appears to be unsupported and a breeding ground for disputes) and the requirement to **search for concurrent delay**.

The introduction of these approaches (to a large extent via the Society of Construction Law Protocol) makes the construction industry heavily reliant on delay analysts, and appears to burden it with disputes.

Where there are causes of delay which are not employer delay events, then generally those delays will come out in the wash, in the date when the Contractor achieves Practical Completion. It's hard to see any need to measure the effect of a particular 'event' which is not an employer delay event, in regards to EOT.

The only conceivable benefit of such approaches appear to be that Employers can recover some additional LDs in respect of periods of delay which would have occurred anyway due to their own delays. But the reality is that such apparent windfalls are likely effectively priced back into tenders anyway, along with the additional contract management and administration, claims and disputes.

The beneficiaries aren't contractors or Employers, they are – it is submitted – (quite possibly entirely by accident), the disputes industry and providers of products and services such as and relating to computer software.

Sims 3rd edition – published in 1998 – said, *" We firmly believe that all architects and project managers should use computerised programmes to monitor progress and assist in analysing claims… If this was done…claim making and understanding would be eased and disputes avoided or at least made less frequent"*. This report considers that that ambition has not been realised, and is not going to be.

The very recent judgement of *Thomas Barnes & Sons* (see Appendix E) does seem to provide for a return in English law to a suitable position on the concurrency point, assuming it holds, but the critical path seems close to becoming beyond recall. This report concludes that if the construction industry wants to pull itself out of the disputes mire, the appropriate course of action would be to consider abandoning the SCL Protocol approach and taking a new (or old) look at dealing with extensions of time. A first draft potential alternative method of assessing EOT is contained within Section 28 of this report below. It is suggested that if parties adopted (and were able to draft) a mechanism of this nature, it may substantially cure the disputes problem.

ROB TUSTIN 24th November 2022 rob_tustin@yahoo.co.uk

28. PROPOSED MECHANISM

It will be interesting to see how delay mechanisms develop in construction contracts. The core principles, it is suggested, need to provide for a reasonable evidential burden, respect of the principles of time ownership, and recognition of the fact that damages should endeavour, other things being equal, to restore the injured party to the position it would have been in "*if the contract had been performed*" by the other party.

The simple approach which this paper suggests could be taken in construction contracts, has 2 limbs.

The first limb finds inspiration in the judgement of Justice Colman in Balfour Beatty v Chestermount Properties, in which he stated, *"The underlying objective is to arrive at the aggregate period of time within which the contract works as ultimately defined ought to have been completed having regard to the incidence of non-Contractor's risk events".*

And from Justice Seymour in *Royal Brompton* and Justice Hamblen in *Adyard,* where they found that there is no entitlement where the item of work which would be affected by the Employer event, is not yet ready to commence.

And from Justice Lloyd in *Hammond 2002*, where he said, (for example): *"The co-ordination drawings…were due…8 weeks earlier…so there must have been some delay (unless it was mopped up by float as to which I have no acceptable evidence, merely supposition)".*

The second limb, which operates as a long stop, takes inspiration from Chestermount's argument in *Balfour Beatty v Chestermount*, and from Justice Hamblen in *Adyard*, i.e. the gross latest date on which the project could have finished, bearing in mind the dates of Employer delay events. This report suggests that normally such a longstop claim should **fail** as it did in Justice Colman's case where the fit out works were only instructed because the Contractor was on site for so long in any case due its own delays. But that in a situation where it is clear upon examination of the facts, that the Employer event would have occurred irrespective of the existing Contractor delays, i.e.:

i) The Employer was on the balance of probabilities not merely pacing due to the Contractor delay AND
ii) The Employer would on the balance of probabilities have proceeded with the risk event if the Contractor had not been in delay

then there is a no loss situation in which damages are not appropriate and an extension of time should be given up to that date, as a long stop extension date.

This requires an investigation of the facts by the contract administrator. As Justice Lloyd/Seymour said in *Hammond 2002*, *"(The Contractor's) difficulties…were known but unquantifiable except as a matter of judgment…That is one of the reasons why construction contracts appoint as Architects…engineers, surveyors or other contract administrators…as they are best able to gauge such matters and their possible effects"*

Furthermore, contracts should expressly state that critical path analysis is not a suitable method of assessing extension of time entitlement.

It is suggested that if parties adopted this mechanism (once the drafting is finalised), it may largely cure the claims problem. There would still be loss and expense to sort out, but without the burden of unmerited arbitrary LDs, many contractors are – it is suggested - likely to settle, perhaps with some assistance (including from claims quantity surveyors).

It's interesting just to do a quick experiment at **how difficult it is (and it does seem to be difficult!) to come up with a drafting which would implement the simple provisions intended above, to the exclusion of other interpretations**.

A very much 1st draft attempt is below:

"

1. *Nett extension of time*

   In order to assess the nett entitlement to extension of time, The Architect/Contract Administrator shall:

   i) assess whether a Relevant Event (or Relevant Events) is/are causing or will likely cause (or, but for the effect or potential effect of another event upon the same item of work, would be causing or would cause) delay to an in progress activity or a ready to commence activity, such as will -or would be reasonably likely to - extend the required period for carrying out the Works (beyond the Completion Date).

   ii) *where so, then instruct an extension of time on the basis of a fair and reasonable estimate (on a prospective basis), taking into account all relevant prevailing circumstances, of the aggregate number of additional days required beyond the Completion Date, in relation to the applicable Relevant Event (notwithstanding and disregarding the effect of any delays which are not a Relevant Event), including any fair and reasonable Contractor's contingency*.

   iii) *In undertaking the assessment in sub*-clause ii above, the Architect shall avoid duplicating extensions in relation to the same period of delay caused by more than one Relevant Event"

2. Gross extension of time

   .1 In order to assess and instruct the gross entitlement to extension of time, the Architect/Contract Administrator shall make a fair, proportionate and reasonable assessment of the latest date by which the Contractor ought reasonably to have completed the Works (including in such calculation/assessment, the fixed period in relation to the original scope of works and scope of risks agreed between the Parties), taking into account:

   i) the date, or period of dates, relating to the Relevant Events, and
   ii) the extent to which the completion of the Works was dependent upon the subject matter of the Relevant Event, and
   iii) an assessment of the duration of a reasonable period to complete the remainder of the Works subsequent to the occurrence of the Relevant Event.

.2 In so doing, the Architect shall disregard:

i) any Relevant Event to the extent that there is evidence that its incidence was solely on account of known delays which were not a Relevant Event (i.e. that it was a 'pacing delay'), and
ii) any Relevant Event to the extent that on the balance of probabilities, taking into account all material circumstances, it would not have occurred/transpired but for delays which were not Relevant Events

3. Total extension of time entitlement

The Architect shall instruct an extension of time up to the latest of the:

i) aggregate date arising from the nett entitlement assessments under clause 1 and
ii) latest date arising from the gross entitlement assessment under clause 2.

4. Critical path analysis

For the avoidance of any doubt whatsoever, critical path analysis is not a suitable method of assessing extension of time entitlement**."**

THE WORDING ABOVE IS AT BEST AN EARLY WORK IN PROGRESS. DO NOT IN ANY CIRCUMSTANCES USE IT IN A CONTRACT

ROB TUSTIN 24th November 2022 rob_tustin@yahoo.co.uk

THIS PAPER DOES NOT CONTAIN LEGAL ADVICE. THIS PAPER DOES NOT PROVIDE ADVICE OR GUIDANCE, IT IS A DISCUSSION PAPER, AND IS NOT INTENDED TO BE RELIED UPON.

Three points of conscience:

1. A delay expert gave me work a few years ago when I badly needed the work. I'm sure he made a good mark up on it and also that what I produced helped him out too. But I remain grateful for that work, and also for his supportive words during some difficult times. That has rightly weighed heavily at times while writing this, and I hope that his business continues to succeed.
2. I also regret the fact that young delay analysts who have gone into a now established profession in good faith may have less opportunities if the industry moves away from critical path analysis for EOT. I hope that they find good opportunities and a bright future.
3. I hope that any individuals who contributed in good faith towards the industry's adoption of critical path analysis, do not feel to blame as such. These things happen, and at least you made a difference.

THE WRONG PATH

PART 7

APPENDIX A

CONTRACTING OUT OF THE 'OWN WRONG' AND PREVENTION PRINCIPLES

THIS PAPER DOES NOT CONTAIN LEGAL ADVICE. THIS PAPER DOES NOT PROVIDE ADVICE OR GUIDANCE, IT IS A DISCUSSION PAPER, AND IS NOT INTENDED TO BE RELIED UPON

29. PROVENANCE OF THE PREVENTION AND OWN WRONG PRINCIPLES

The "*established legal maxim*" ensures that whoever "*prevents a thing from being done shall not avail himself of the non-performance he has occasioned*", was included in "*H Broom, A Selection of Legal Maxims, Classified and Illustrated (8th Ed) at p 235*[127]". That book was an 1874 publication from America, and an available online extract[128] explains that it deals with "*Rules of Law*" of vital importance.

We know that the principle comes from at least as early as *Rede v Farr* (1817). But in fact it appears to be older.

When Lord Finlay referred to the principle in *New Zealand Shipping Co v Société des Ateliers et Chantiers de France* [1919][129], he did so by reference to, "*the very old principle laid down by Lord Coke Co. Litt. 206b that a man shall not be allowed to take advantage of a condition which he has brought about himself*".

This reference "Co. Litt 206b" appears in a document[130] titled "*Understanding, Authority, and Will": Sir Edward Coke and the Elizabethan Origins of Judicial Review*"[131] presented in a Boston College Law Review dated January 1988, in a footnote 147 at the bottom of page 84. Page 84 is a discussion on Coke's proposition in the early 17th century that in some extreme circumstances, the judiciary may be able to explicitly over rule statute.

The footnote reads, "*Coke hinted at moderation, suggesting that the common law might usually "control" statutes and only "sometimes" adjudge them void. Coke's statement that judges would strike down "repugnant" law…In Coke's lexicon, repugnant meant "contrary to common law." See COKE, CO. LtTr., supra note 2, at 206b (legal conditions "repugnant to the state" equated with conditions "**against some maxim or rule in law**"*).
The rule has clearly been regarded as of vital importance throughout the history of the common law.

Indeed some of the key judgements - *Rede v Farr* (1817), *Holme v Guppy* (1836), *Roberts v The Bury Improvement Commissioner* (1870) - which set the principle out, did so at the height of the period in which the right of freedom to contract was most highly respected[132].

As late as 1875 Sir George Jessel held in *Printing and Numerical Registering Co v Sampson*[133] that, "*Men of full and competent understanding shall have the utmost liberty of contracting and…their contracts when entered into freely and voluntarily shall be held sacred and shall be enforced by the courts of justice. Therefore you have this paramount public policy to consider in that you are not lightly to interfere with this freedom of contract*".

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[127] Singapore judgement of Ng Koon Yee Mickey v Mah Sau Cheong [2022] SGHC(A) 33 paragraph 73
[128] https://www.forgottenbooks.com/en/books/ASelectionofLegalMaxims_10025074
[129] https://files.pca-cpa.org/pcadocs/bi-c/1.%20Investors/4.%20Legal%20Authorities/CA402.pdf
[130] https://core.ac.uk/download/pdf/71456953.pdf
[131] presented by Allen Dillard Boye (who from the looks of it was a prolific legal commentator/presented),
[132] See Atiyah Rise and Fall of Freedom of Contract 1979, also Brownsword
[133] (1875) 19 Eq 462

As Atiyah put it, "*In the 19th century however, the doctrine of freedom of contract prevailed and became an essential feature of English law….The 19th century view point was that parties who had voluntarily, and with a clear eye to their own interests, entered into a contract, had created their own piece of private law*."

And yet even in this context, the courts found it imperative to apply the principle set out by Lord Ellenborough in *Rede v Farr* 1817, as inherited from Lord Coke in the early 17th century.

The principal is encapsulated in article 7.1.2 of the Unidroit Principles of International Commercial Contracts (2004)[134], which states,

> " *A party may not rely on the non-performance of the other party to the extent that such non-performance was caused by the first party's act or omission or by another event as to which the first party bears the risk*".
>
> "*This article can be regarded as providing two excuses for non-performance. However conceptually, it goes further than this. When the article applies, the relevant conduct does not become excused non-performance but loses the quality of non-performance altogether*"

30. CRITICISMS OF AND COMMENTS ON THE PRINCIPLES

The wider 'own wrong' principle

The judge in *Ng Koon Yee Mickey v Mah Sau Cheong* (2022)[135] characterised the Singapore *Evergreat Construction v Presscrete Engineering Pte Ltd (2006) ("The Evergreat*")[136] judgement as restricting the application of the wider principle to matters of breach of contract, however it seems plain that whilst the authorities which the judge reviewed in *The Evergreat* did refer to "breach", the facts of the case do not appear to relate to breach. In this case the main contractor and sub-contractor's dispute had been sent to an Independent Assessor for determination. The Contractor sought to have the decision set aside on the basis that the AI did not consider its claims. In finding against the Contractor, the judge applied the prevention principle to the fact that the reason the AI did not consider the Contractor's claims was because the Contractor chose to take no part in the proceedings and so didn't present its claims to the AI. On the basis that this does not seem likely to have amounted to a breach, it is submitted that the assertion made by the judge in the 2022 case (notwithstanding that the review of the Singapore authorities in that case is exceedingly helpful) is not in this instance accurate.

In *Bensons Property Group Pty Ltd v Key Infrastructure Australia Pty Ltd* (2021)[137] the Victorian (Australian state of Victoria) Court of Appeal, held obiter that the prevention principle only applies to breaches of contract.

[134] https://www.unidroit.org/english/documents/2004/study50/s-50-98-e.pdf
[135] [2022] SGHC(A) 33
[136] 1 SLR(R) 634
[137] [2021] VSCA 69

In *Multiplex Constructions v Honeywell Control Systems (No 2)* (2007)[138] Justice Jackson held that (specifically in relation to the prevention principle, but logic would suggest the approach would also apply to the wider principle), the principle did not take effect in a situation where the sub-contractor (in this case) had a substantive entitlement to extension of time, but lost its right to claim it by failing to submit a notice in accordance with the express terms of the contract. This was not a case of the parties contracting out of the prevention principle (or the wider principle), but one where the prevention principle did not come into play because there had been a novus actus interveniens or new intervening act, which meant that it was not in fact the Contractor (in this case) who had caused the Sub-contractor's inability to obtain an extension of time, but the Sub-Contractor itself. As Justice Jackson put it, "*the other party…failed to exercise a contractual right which would have negated the effect of that preventing conduct*…"[139]

The delay prevention principle

Notorious (but well respected) pro-Employer commentator Mr I N Duncan Wallace (former editor of Hudson on Construction and Engineering Contracts) begrudgingly acknowledged the logic, where he states at page 394 of "*Construction Contracts Principle and policies in tort and contract"*[140], "*In all Commonwealth jurisdictions, and many U.S. States, the extension of time clause will need expert draftsmanship to avoid its invalidation on highly technical grounds, should even a small part of the total delay be shown to be the responsibility of the owner or consultant*".

Justice Colman pointed out the consequences of the effect of the principle, in *Balfour Beatty v Chestermount Properties* (1993)[141], where he stated, "*The remarkable consequences of the application of this principle could therefore be as if … the contractor fell well behind the clock and overshot the completion date … if the architect then gave an instruction for the most trivial variation, representing perhaps only a day's extra work, the employer would thereby lose all right to liquidated damages for the culpable delay … what might be a trivial variation instruction would destroy the whole liquidated damages regime…*"[142]

In *Multiplex Constructions v Honeywell Control Systems (No 2)* (2007)[143], Justice Jackson confirmed that the prevention principle still applies. He made two further points of note specifically in relation to the prevention principle (see also comments of potential wider application above):

1. actions by the employer, which are perfectly legitimate under a construction contract, may still be characterised as prevention if those actions cause delay beyond the contractual completion date (as stated in the other authorities)

[138] [2007] EWHC 447 (TCC).
[139] https://doylesconstructionlawyers.com/casewatch-list/multiplex-constructions-v-honeywell-control-systems/
[140] Sweet and Maxwell 1986
[141] (1993) 62 BLR 12
[142] https://www.herbertsmithfreehills.com/latest-thinking/the-prevention-principle-%E2%80%93-an-irreproachable-concept
[143] [2007] EWHC 447 (TCC).

2. acts of prevention by an employer do not set time at large if the contract provides for extension of time in respect of those events (as stated in the other authorities)

In the second of these points, Justice Jackson is making the same clarification which Lord Justice Salmon made in *Peak v McKinney* and Lord Fraser made in *Bilton*, where they said that the parties can contract out of the effects of the prevention principle by including a comprehensive extension of time clause which would protect the liquidated damages clause. Justice Jackson is taking the (correct) orthordox approach, as set out in the previous cases.

In A*dyard Abu Dhabi v SD Marine Services (2011[144])* Justice Hamblen rejected a contention from a claimant that the prevention principle applied where there was notional or theoretical delay. i.e. delay against planned intent which had no actual effect upon the Contractor's progress.

He held that such an approach, *"is wrong in principle because…On its case there is no need to prove the event or act causes any actual delay to the progress of the works. Notional or theoretical delay suffices. That would seem to involve turning the prevention principle on its head. The rationale of the principle is that it is unfair for a party to insist on performance of an obligation which he has prevented the other party from performing. That necessarily means prevention in fact; not prevention on some notional or hypothetical basis" (para 264)*

He supported this conclusion by reference (para 281) to Lord Denning's speech in Trollope and Colls where Lord Denning had said, *"if the other party by his conduct – it may be quite legitimate conduct, such as ordering extra work – renders it impossible or impracticable for the other party to do his work within the stipulated time".*

Justice Hamblen further held, *"*"*there is only (prevention) if both events in fact cause delay to the progress of the works and the delaying effect of the two events is felt at the same time*". This appears to be taking a critical path analysis approach to the prevention principle.

It is noted however that Lord Denning's comment appears to support the opposite contention to that made by Justice Hamblen.

In the Singapore case of *Lim Chin San Contractors Pte Ltd v LW Infrastructure Pte Ltd (2011)[145]* the judge also took a critical path approach to assessing the delay before the prevention principle could apply.

The judge refers at paragraph 32 to critical path analysis guru Mr Keith Pickavance where he says, "*On the other hand, a delay to the completion date occurs only when the completion date has passed and can only be caused by a delay to the progress of an activity which is on the critical path to completion."*, and in paragraph 33 to a

[144] [2011] EWHC 848 (Comm)
[145] [2011] 4 SLR 455

similar reference (albeit seemingly not specifically relating to the prevention principle) in Hudson's Building and Engineer's contracts.

A lot of 21st century judges and the construction disputes industry would likely favour this approach, but it is submitted it is not a valid interpretation of the prevention principle. It's also noted that the court in the Australian case of *SMK Cabinets v Hili Modern Electrics* (1984), took the opposite view stating that the sub-contractor's own progress was irrelevant[146] (as had Justice Colman in the 1993 case).

This point is discussed further below in the relation to *North Building Building v Cyden Homes* (Section 32 of this report).

Justice Ramsey was critical of the prevention principle in *Bluewater Energy Services v Mercon (2014) where, as Herbert Smith Freehills 2020 legal briefing entitled, "The prevention principle – an irreproachable concept?"[147] explains, he held that,"The principle is of some antiquity and has a surprising effect on the contractual obligations as to the time of completion."[148]*

A 2019 article by Adam Constable QC and Thomas Lazur "*The Prevention Principle: Onshore v Offshore and the time at large*" (which argued that different approaches may be taken between on shore construction cases and shipping and off-shore infrastructure cases) highlight criticisms of the traditional approach in the introduction to *Keating on Offshore Construction Contracts 2nd edition*[149] provided by Hamblen LJ and Sir Vivian Ramsey. This author has not read that introduction, and assumes that the criticism relates specifically to the prevention principle, and not to the wider principles referred to further above.

Construction companies should note that Hamblen LJ is now Lord Hamblen[150].

[146] VR 391
[147] https://www.herbertsmithfreehills.com/latest-thinking/the-prevention-principle-%E2%80%93-an-irreproachable-concept
[148] [2014] EWHC 2132 (TCC) at 518.
[149] https://www.keatingchambers.com/wp-content/uploads/2019/07/KC-Legal-Update-Summer-19-Prevention-Principle.pdf
[150] and is anticipated to hold office in the Supreme Court until 2027

31. CONTRACTING OUT (PRIOR TO *NORTH MIDLAND*)

31.1 Cheall v Apex (1983)

In the Court of Appeal in in *Cheall v A.P.E.X (1983)*[151] (notably a year after the House of Lords' potentially confusing decision in *Bilton v GLC*) Lord Diplock said[152] (p188),

> *"in the New Zealand Shipping case [1919] AC 1] reference was made by all their Lordships to* ***the well known rule of construction that, except in the unlikely case that the contract contains clear express provisions to the contrary, it is to be presumed that it was not the intention of the parties that either party should be entitled to rely upon his own breaches of his primary obligations as bringing the contract to an end****, i.e. as terminating any further primary obligations on his part then remaining unperformed*".

It's noted that this relates specifically to an application of the wider rule to situations of termination/recission.

It's further noted that there was no authority as of 1983 for contracting out of the own wrong principle. It's further noted, that the conclusion in relation to the New Zealand shipping case is plainly wrong, as set out below.

In the House of Lords case of *New Zealand Shipping Co v Société des Ateliers et Chantiers de France* there was a contract for the construction of a ship, in which

a) the builder was to be given an extension of time for delays which were not his fault and
b) the contract was to become void if France entered into war (the purchaser of the ship being a French company) within the next 18 months.

France did enter into war within the next 18 months, and as a result, the builder was unable to deliver the ship. The French company tried to insist upon performance. The court held that the contract was void because the contract stated that it shall become void if France enters into war, and France did in fact enter into war.

Notwithstanding the facts, the court considered the appellant's argument based on the prevention principle (which in fact did not apply because the builder was not held to be at fault for France entering into war).

For some reason only four of their Lordships were present and gave a judgement.

Lord Finlay considered situations where a builder might try to get out of a contract simply because he was unable to perform it. In this context he referred to (emphasis added), "*the very old principle laid down by Lord Coke Co. Litt. 206b that a man* ***shall not be allowed*** *to take advantage of a condition which he has brought about himself*". He then re-iterated that, "*In the present case the builder was in no way responsible*".

[151] [1983] 2 AC 180
[152] BDW Trading Ltd (T/A Barratt North London) v JM Rowe (Investments) Ltd (2011),

Lord Atkinson said, "*It is undoubtedly competent for the two parties to a contract to stipulate by a clause in it that the contract shall be void upon the happening of an event over which neither of the parties shall have any control…if the stipulation be that the contract shall be void upon the happening of an event which either one or other of them by his own act can bring about, then the party who by his own act or omission brings that event about,* ***can not be permitted*** *either to insist upon the stipulation himself or to compel the other party, who is blameless, to insist upon it, because…either would be to permit him to take advantage of his own wrong*".

That's absolutely explicit. It can NOT be contracted out of.

It is submitted that the confusion arises, because having explicitly stated that a party can not rely on an express provision

- which is to the effect that a contract shall become void in a particular situation
- but where in fact that party has by its default brought that situation about

Lord Atkinson subsequently he goes on to say "*of course, the parties may expressly or impliedly stipulate that the contract shall be voidable at the option of either party to it*".

This has been interpreted as a contracting out of the 'own wrong' principle.

But there's a key difference. In this situation it is effectively a termination at will clause. The party does not need any particular situation to have arisen (whether caused by itself or otherwise) to have occurred before it can void the contract.

The comment has no bearing on the discussion of relying on one's own default, and the interpretation in *Cheall v Apex* is clearly invalid and wholly incorrect. Furthermore, it has no bearing on delay cases. There is no such thing as 'delay at will', or a 'charge damages at will' clause, and it would have an entirely different effect to a termination at will clause.

Lord Wrenbury is equally explicit. After explaining what the builder's argument was on the point, he goes on to find that such an argument is invalid. He states, "*The rule is that in a contract "void" is to be read as "voidable", if the result of reading it as "void" would be to enable a party to avail himself of his own wrong to defeat his contract….The contract is not void in favour of or "voidable at the option of" the party in default"* (i.e. notwithstanding that it expressly says "void"). *He cannot say that it is void, and has no option of avoiding it in his own wrong*".

Lord Shaw made reference to various authorities which had provided the principle that, "*for that he himself is the mean that the condition could never be performed*." He then applied this principle to contracts which include a clause pertaining to the contract becoming void, by saying, "When a contract describes an event or events which may happen, and declares that on the occurrence of any these events the contract shall become void…Such a contract may be declared void…at the instance of that party who has not by his own wrong or default brought about the event, or in Coke's words, has not been**, "***the mean that the condition could never be performed***".**

It's difficult to see on what basis this case has been cited in support of a principle that the parties may contract out of the prevention principle. There is none. Each judge unequivocally explains the opposite.

31.2 SMK Cabinets v Hili Modern Electrics (1984)

In the Australian case (Supreme Court of Victoria - equivalent of English High Court) of *SMK Cabinets v Hili Modern Electrics* (1984)[153] the judge commented to the effect that although they didn't do in that case, parties could contract out of the principle. This comment appeared to refer to the wider principle and not just the prevention principle. There appears to be no authority at this point in *English law* for such a proposition, other than in the *Cheall* case, which was in relation to rescinding a contract, and was in any case wrongly decided.

31.3 Alghussein Establishment v Eton College (1988)

In the House of Lords case in *Alghussein Establishment v Eton College (1988)*[154], a lease agreement had been entered into, under which the lessor promised to build the property which was to be the subject of the lease. The contract contained a clause which stated that if, "*for any reason attributable to the wilful default o*f" the lessor, the development remained uncompleted by a certain date the lease "*shall forthwith be granted, and completed as aforesaid*".

The following points are noted in paragraph 12 of the judgement of the House of Lords:

- It was noted in the Court of Appeal trail that the clause seemed unusual and that the intention may have been for it to have read "*NOT to the wilful default*"
- however this point was not made out and there was no argument of rectification
- Relying on the New Zealand Shipping case a party in *wilful* default (it should be noted that the reference to 'willful' is from the contract clause) could not rely on their own wrongdoing, and that a contrary assumption could not be tolerated whatever the express words of the contract

The House of Lords enforced the decision of the Court of Appeal, and further held that (Lord Jauncey of Tullichettle), "***the clear theme running through* (the authorities) *was that no man can take advantage of his own wrong***" (para 594).

Lord Jauncey said, "*Although the proviso refers specifically to the wilful default of the tenant it does not state that the tenant should be entitled to take advantage thereof.* ***It is one thing for the wilful default of a party to be made the occasion upon which a provision comes into operation, but it is quite another thing for the party to be given the right to rely on that default***".

[153] VR 391
[154] [1988] 1 WLR 587

VK Rajah J's interpretation (in "*Evergreat Construction*") of the House of Lords judgement was (para 51), "*In essence, even if the parties expressly provide that the contract shall ipso facto determine upon the happening of a certain event, such a provision is to be construed subject to the principle that no man can take advantage of his own wrong, so that one party may not be allowed to rely on such a provision where the occurrence of the event is attributable to his own act or default; Chitty on Contracts at para 22-054. This principle is also referred to as the "prevention principle" and is wedded to notions of fair play and commercial morality. It offends all sensible norms of commercial intercourse to allow a party in breach of its contractual obligations to rely on its very breach to either evade responsibility or, even more farcically, to assert that the other contracting party must also willy-nilly accept or sustain the consequences of that breach*."

31.4 Richo International v Alfred C Toepfer International" (1991)

In *Richo International v Alfred C Toepfer International"* (1991)[155] Justice Potter has been cited as having held with reference to a statement in Chitty on Contracts, "*the requirement of 'clear and express provisions to the* contrary' (which had clearly itself been introduced at some time since the 1983 edition of that publication) "***should not be read as meaning more than a clear contractual intention to be gathered from the express provisions of the contract***". !!!

This finding was obiter, as Potter J found for the seller on other grounds, but he appears to be saying (with no apparent authority) that the own wrong principle can be contracted out of by means of a gathered contractual intention**. Clearly this is at odds with the previous 375 years or more of precedent.**

Author's note: this is a good point for a short break in reading.

31.5 BDW Trading Ltd (T/A Barratt North London) v JM Rowe Ltd (2011),

BDW Trading Ltd (T/A Barratt North London) v JM Rowe (Investments) Ltd (2011)[156], was heard in the Court of Appeal.

JM Rowe was the owner of property at 52 and 52A-56 Watford High Street. 52 was leased to Alliance and Leicester under two separate leases, one for the front part of the property and one for the rear part. Both were 10 year leases and both contained a provision whereby JM Rowe could terminate (co-incidentally via a clause 52) by giving 6 months notice, and making a specified compensation payment within a specified period.

JM Rowe gave A&L such termination notice after planning permission was obtained to redevelop the properties.

JM Rowe then entered into an agreement with Barratt, whereby Barratt would purchase 52A-56 and the rear part of 52, redevelop them, and lease them back to JM Rowe for 999 years for a nominal rent. Why this arrangement was reached is beyond the scope of this analysis.

[155] [1991] 1 Lloyds Rep, 136
[156] [2011] EWCA Civ 548

The contract of sale with Barratt further contained various conditions precedent in clause 6.2 which if left unsatisfied by a stated date would entitle either party to rescind the contract. One of the conditions, contained in clause 6.2 (vi), was that JM Rowe must have paid to the existing tenant A&L, the amount of compensation for terminating that lease stated in clause 52 of that tenancy agreement, by the date identified in that agreement.

The right to rescind the development contract with Barratt was stated to exist, "*save* where *the party purporting to serve such notice is in default of its obligations under this clause 6.2*".

JM Rowe did not make the compensation payments referred to in clause 6.2 (vi) to the tenant, and ("*for purely commercial reasons…Following the downturn in the housing market*") Barratt served notice to rescind under clause 6.2.

The reason that the compensation payment had not been made, is that JM Rowe and Barratt had agreed that the existing tenancy could be extended for longer than the 6 month period stated in the termination notice to A&L, and JM Rowe and A&L (the tenant) thereafter reached an alternative agreement on that basis.

Lord Justice Patten found in Barratt's favour on the basis that the prevention principle (or an aspect of it) could be contracted out of, and that that was achieved due to the express restriction on exemptions from the grounds to rescind, being expressly limited to situations where the serving party is in default of its "*obligations under this clause 6.2*".

At paragraph 30 he refers to Lord Diplock in the wrongly decided 1983 *Cheall v A.P.E.X.. case* (see section 31.1 of this report above).

In paragraph 34 Lord Justice Patten suggests that the "*later authorities*" show that "*clear words*" are not needed in order to oust the "*own wrong principle*". This seems absolutely remarkable, (however it is noted that this is after referring to *Cheal* which relates specifically to the arena of rescinding contracts).

He relies in paragraph 35 on the wrongly decided obiter of "*Richo International v Alfred C Toepfer International"* (1991)[157] (see 17.4 above).

At paragraphs 36 Lord Justice Patten reviewed the general authorities on implied terms, and in particular at paragraph 36 a 2009 Court of Appeal case which provided that, "*There is only one question: that is what the instrument, read as a whole against the relevant background, would reasonably be understood to mean*".

At paragraphs 39 and 40, he says with regards 6.2, "*The opening words 'save where' are inconsistent with the implied term for which Rowe contends and it cannot in my view, be accommodated within clause 6.2. …This makes it strictly unnecessary to consider the issue of causation in relation to the own wrong principle*". In other words, the "*own wrong principle*" "*can not be accommodated in clause 6.2*", would you believe !!!!!!!

[157] [1991] 1 Lloyds Rep, 136

Nevertheless, two caveats should be pointed out.

Firstly, as a matter of fact, it's hard to see how Barratts's actions had breached any of its obligations, or amounted to a failure on its part at all. Although Barratt's reliance on the condition precedent was a technical one, in terms of liability for the event which gave rise to the right (the non-payment of the compensation sum to the tenant), Barratt had done no more than allowed JM Rowe to extend the tenancy. JM Rowe's failure to make payment to the tenant by the agreed date, wasn't Barratt's fault. If JM Rowe had been commercially astute it would have either paid A&L the money it had agreed (under both contracts) to do, or alternatively involved Barrett in the re-negotiation.

Either way, Barratt didn't agree to the agreed payment being deferred, and there's no indication that it agreed to the tenancy extension in expectation that JM Rowe and the tenant would agree to defer the compensation payment (let alone that Barrett had planned to rely on such a deferral to escape the contract).
Barratt had itself breached a clause 15.2 of the agreement which required it to provide JM Rowe within a certain time with a specification and Method Statement for undertaking building separation works within the property, but this seems to be unrelated to clause 6.2 or the conditions precedent set out therein, and incidental (or at most peripheral) to Barratt's decision to agree with A&L to defer the compensation payment. At the very least JM Rowe's decision seems like a novus actus interveniens along the same line as Justice Jackson's *Multiplex* case.

And in fact Lord Justice Patten reaches the same conclusion. At paragraph 48 he says, "*it can not be said that Barratt's breaches of clause 15.2 were responsible for Rowe's failure to pay (the money)*". And at para 83 in summing up, he says (with no reference to the construction/interpretation approach), "*I therefore reject the defence…and would reject the Appeal*" and refers to the fact that, "*the breaches of clause 15.2 of the Contract were not causative of the failure by Rowe to pay*…"

On this basis, it is tentatively suggested that notwithstanding paragraph 40, the construction/ interpretation comments were obiter.

It should also be noted that at paragraph 38 he rejects the *New Zealand Shipping* case saying, "*I do not find this of much assistance in the present case. It concerns very different contractual provisions and the different question of whether the automatic termination of the contract in the event of delayed completion should be read as including some unjustifiable failure on the part of the shipbuilders. Here the question is whether an express exclusion of the right to rescind in the event of a particular type of breach should be treated as exhaustive*."
It seems that the judge's hunger for his findings, may not have been based on a desire to oust the "own wrong principle", but rather that was just an inconvenience which needed to be disposed of, and the point that he really wanted to make was about interpretation in general where words used are to be treated as exhaustive.

It's also noted that the principles set out in the judgement are stated to relate specifically to a right to rescind, not to a right to recover damages. If it went any wider then it would certainly not appear to be a case where it is, "*clear as a matter of authority that the application of the principle can be excluded*…".

Indeed, it would (if it doesn't already on that other basis) contradict House of Lords authority in *Alghussein Establishment v Eton College* and other cases heard in the House of Lords.

31.6 Adyard Abu Dhabi v SD Marine Services (2011)

Justice Hamblen held that the prevention principle had to be assessed by means of a critical path analysis, and that in the particular case, the delay to completion had been caused by the contractor. It's not clear whether he would otherwise have allowed a clause which permitted the employer to rescind the contract and demand recovery of all payments made in circumstances where the contractor had finished later than the date stated in the contract. It is suggested that this would have amounted to an extreme version of an absolute contract for which there appears to be no legal precedent.

31.7 Saga Cruises v Fincantieri (2016)

In *Saga Cruises v Fincantieri* (2016)[158] Justice Cockerill appeared to proceed on the basis that the principle does not exist at all, stating that, "*it is not uncommon for liquidated damages clauses to be triggered simply by a date, with no correlation of fault at all."* (para 239). Furthermore, Justice Cockerill finds for the Yard/contractor (with no criticism of its arguments) on a point on which it argues in part that an express clause is required in a contract in order to oust/preclude a *"claim for liquidated damages by the Owner when the Owner is responsible for the delay"* (para 239).

In other words, the argument was that without including an express clause to oust such a claim by an Owner/Employer, it would be valid, and the Owner/Employer could cause delay and recover damages payments from the Contractor for that delay. Rather than not being able to contract out of the own wrong principle, Justice Cockerill's approach appears to be that parties would have to contract into it, in order for it to apply. On that basis there would be no principle at all.

With respect, such an approach must be invalid. This author would speculate that there is likely not a single authority in any legal jurisdiction which supports it.

31.8 Further observations

Further observations:

- As noted above, In *Multiplex* Justice Jackson held that the principle does not apply where the 'innocent' party failed to comply with a condition precedent notice requirement. It's interesting that he took this approach rather than a contracting out approach.
- *Petroplus Marketing AG v Shell Trading International Ltd*[159] *AND Port of Tilbury v Stora Enso* (2009)[160] is a pair of cases which has been cited by some commentators as supporting a contracting out approach. In fact, it confirms the validity of the principle but on the facts held that there was an operative extension of time clause.

[158] [2016] EWHC 1875 (Comm)
[159] [2009] EWHC 1024 (Comm)
[160] [2009] EWCA Civ 16

32. NORTH MIDLAND BUILDING LTD V CYDEN HOMES LTD

In the case of *North Midland Building Ltd v Cyden Homes Ltd* (2018)[161], the leading judgement was given by the Society of Construction Law's President, Lord Justice Coulson.

The Contractor argued that the application of "*the prevention principle*" meant that an express clause which provided that the Contractor can not get an extension of time where there is concurrent delay, must be invalid, or at least the Employer can not rely on the clause to recover damages. The court held that that was not the case.

The sub-clause included within the extension of time clause read, "*any delay caused by a Relevant Event which is concurrent with another delay for which the Contractor is responsible shall not be taken into account".*

This author identifies various (26) points which could be raised in regards to the judgement.

The First point

At paragraph 32, the judge states that, "*the prevention principle has no obvious connection with the separate Issues that may arise from concurrent delay*".

The point which he is making here is that concurrent delay ("*'a period of project overrun which is caused by two or more effective causes of delay which are of approximately equal causative potency*') does not offend the prevention principle.

For the purposes of our discussion here we can disregard the last part and say,

- a period of project over run which is caused by two or more effective causes of delay, at least one having being brought about by the Employer

Where Lord Justice Coulson is saying concurrent delay can not offend the prevention principle, the same must also apply to sub-critical delay. For the purposes of this discussion, **any period of overrun resulting from the Employer's action is relevant to the extent that the same period of delay would have arisen anyway due to the Contractor's own delays, i.e. sub-critical Employer delay. This is the bigger issue at stake**

We can analyse this logically, and we can look at the case law. Let's do that bit first.

- *Holme v Guppy* (1836) *"Prevented…(from) completing the contract **within the time limited**".* Doesn't mention anything about the completion date being later than it otherwise would be. It refers to the time limted.
- Roberts v The Bury Improvement Commissioner ([1870, "*the performance of which has been **hindered by himself***…". Hindered. Not 'been exclusively responsible for'.
- *Dodd v Churton* (1897) "*if the building owner has ordered extra work beyond that specified by the original contract which has necessarily*

[161] [2018] EWCA Civ 1744

increased the time requisite for finishing the work*".* Doesn't mention contractor delays. It's about the time requisite.

- *Peak Construction (Liverpool) Ltd v McKinney Foundation Ltd*[162] (1970), "*If the failure to complete on time is due to the fault of both the employer and the contractor, in my view the* (liquidated damages) *clause does not bite. I can not see how, in the ordinary course, the employer can insist on compliance with a condition* ***if it is partly his own fault*** *that it can not be fulfilled".* As Lord Justice Coulson says (paragraph 34), Lord Justice Salmon wasn't talking about concurrent delay in the way Lord Justice Coulson defines it. But that's inconsequential. In fact it proves the point. Lord Justice Salmon wasn't expressing the view that, as say Justice Hamblen puts it, "*there is only (prevention) if both events in fact cause delay to the progress of the works and the delaying effect of the two events is felt at the same time*". He was only interested in whether Employer actions in themselves amounted to delay to the completion date.
- *Trollope & Colls Ltd v North West Metropolitan Regional Hospital Board* (1973), where Lord Denning stated, "*if one party by his conduct…****renders it impossible or impracticable for the other party to do his work within the stipulated time****, then the one whose conduct caused the trouble can no longer insist upon strict adherence to the time stated"*[163]*.* There's no mention of whether the Contractor was going to finish late anyway. It's not relevant.

In each of the above cases, there is prevention if there is ANY Employer contribution towards the delay beyond the fixed date which defines the Contractor's obligation. As Lord Justice Edmund Davies explained, "*The stipulated time for completion having ceased to be applicable by reason of the employer's own default"*.

As noted in the Eighth point below, Justice Akenhead confirmed this approach in *Walter Lilly*.

Page 231 of Keating on Building Contracts 5th edition (1991) stated, "*the rule probably applies even if the contractor has by his own defaults disabled himself from completing by the due date*". A footnote reads, "*See the convincing analysis in S.M.K. Cabinets v Hili Modern Electrics (1984)….citing amongst others a number of English authorities…Astilleros Canarios v Cape Hatteras*…".[164]

Let's check the authorities with the logic. First let's run through again the steps we've already established above:

1. If I wagered a man £50 that he could not run to the end of the road within 60 seconds, and then as he took upon the task I leapt out from the pavement and pushed him to the ground, making the task impossible or impractical, and thereby preventing him from getting to the end within time or at all, then I

[162] 1 BLR 111
[163] The one party in this case must be the Employer and the other party the Contractor, because the Contractor has no time stated to insist upon.
[164] [1982] 1 Lloyd's Rep. 518

should not be able to enforce the bet. *Rede v Farr, New Zealand Shipping Co v Société des Ateliers et Chantiers de France*[165].

2. Even if we agreed that if he completed on time he would win £50, but if he completed late he would give me £1 for every second that he is late, then the bet would still be as to **whether or not** he can finish on time. If I make the task of finishing within 60 seconds impossible or impractical, then I can not rely on the bet.
3. If we said that I will give the man profitable work building a barn, but if he finishes it in later than 60 days then he has to give me £1 for every day of delay beyond that date, then the 60 days remains a fixed obligation.
4. If we said that I will give him profitable work building a barn, and he has to finish it in 60 days, or else he has to give me £1 for every day of delay beyond that date, save for that if I make that task impossible or impracticable by doing certain things, in which case the 60 days will be extended, then:
    iii) In the circumstances of those certain things occurring, the 60 days is not fixed (to the extent of those circumstances)
    iv) **In the circumstances of other things that I might do to make the task impossible or impractical occurring, the 60 days remains fixed (for relevant purposes). Because I can not benefit from my own 'wrong', I can not rely on the 60 day period. Time becomes at large if I cause delay. This is the prevention rule in construction delay cases. (see 3 also).**

Now we can add a point 5:

5. If the man was going to finish late anyway, then:
    i) *Holme v Guppy, Roberts v Bury, Peak v McKinney, Trollope & Colls v NWMRHB* and other authorities, suggest that this makes no difference. The obligation simply falls away due to my actions.
    ii) However logic would suggest on the face of it that in these circumstances I am not benefiting from my own wrong. The man would have failed with or without my wrong.
    iii) The next step however would be to apply the penalty rule, and determine the extent to which irrespective of my actions, the man would have finished late (in respect of which periods I can not have suffered any loss as a result of the man's own default because I was late anyway).
    iv) There is a paradox here however because the man can not get to the penalty rule because prima facie it is his obligation to complete on time, regardless of the fact that I caused (or in this case partly caused) some of delay in the execution of <u>his</u> obligations.
    v) In this way, I am relying on (and therefore benefiting from) my own default by avoiding the penalty rule
    vi) so the decisions in i) above are correct

Furthermore, the point of the principle is that the Contractor must be given the time in which to complete.The whole purpose of the extension of time clause from the Employer's perspective is to extend the contract period so that it accommodates Employer risk events. If it doesn't (and probably if Employer risk events exceed float)

[165] [2012] UKSC 63

then time has to become at large because the Employer has prevented the Contractor from *being able to* fulfil the obligation.

This is what prevention is. It's not something which makes the contractor finish a bit later than it otherwise would have done. Critical path analysis is a 21st century fiction. There is no logic to a contention that the Employer has prevented the Contractor from finishing earlier if the Employer event happens before a Contractor event (and is therefore on the 'critical path'), but not after it when it was already going to finish later (and thereby not on the 'critical path'). Critical path analysis is a false construct. A logically invalid fictional nonsense.

It goes without saying that using a critical path approach to assessing delays, is not what Park B had in mind in 1836, or Lord Esher and Lord Justice Chitty in 1897. Critical path analysis was not applied in the UK to delay analysis until the mid 1990s. It's 160 years too late to be relevant. It's actually arguably quite comical that commentators and experts might think that the prevention principle is about critical path analysis, and all the more so that there are judges who fall for it.

An assessment of the extent to which the Contractor would have finished late anyway, in comparison to the delay caused solely by the Employer (and irrespective of which order the events arose in or whether or not they were on the critical path) *would* have some logical potential, but for the reasons set out above ultimately, it is irrelevant.

Whether the Contractor would have finished earlier is irrelevant for the reasons set out above.

'What about the Contractor's default?', you might ask. 'Why does the Contractor get away with it?'

We look at this in the next point.

The Second point

'What about the Contractor's default?', you might ask. 'Why does the Contractor get away with it?'

Alghussein Establishment v Eton College (1988[166]*) "no man can take advantage of his own wrong".* Not just the Employer. "No man". That includes the Contractor.

Chitty on Contracts 25th edition 1983, "*no man can take advantage of his own wrong*"

But that's why the Contractor can't obtain prolongation costs in the same position. No man can take advantage. The Contractor can't get prolongation costs for periods of delay jointly caused, and the Employer can't get an extension of time.

Similarly, he can't get his delay damages at all unless there's an extension of time clause which covers his own delay.

[166] [1988] 1 WLR 587

This is the way it has always been until Justice Dyson mentioned the “critical path” and “concurrent delay” in 1999.

A comment by Lord Justice Coulson in the conclusion of the judgement in paragraph 47 makes the same mistake. Lord Justice Coulson says in relation to concurrent delays, *“Each can argue that it would be wrong for the other to benefit from a period of delay for which the other is equally responsible.”* This conclusion seems to suffer from a similar fault identified in Appendix E of this report, in relation to the 2002 Society of Construction Law paper from which Lord Justice Coulson draws the definition of “concurrent delay” which he incorporates into law in this judgement.

The author of that SCL paper, Mr John Marrin QC, argues that where the Contractor is entitled to an extension of time, it also becomes entitled to prolongation costs. He calls it the “obverse problem”.

Of course this is incorrect and in most construction contracts, prolongation costs have to be demonstrated separately to extension of time.

Similarly, an equal position or a position that “*each can*” equally or reasonably “*argue*”, would not be one where – as Lord Justice Coulson seems to suggest – the Contractor is entitled to parts of extensions of time but not other parts – but rather one where for periods of delay jointly caused, the Employer can’t take LDs at all (i.e. a full extension of time is given) and the Contractor can’t recover prolongation costs.

The third point

This author was concerned for some while that Lord Justice Coulson was attempting to throw the ‘own wrong’ principle aside.

At paragraph 33, Lord Justice Coulson refers to a passage from Lord Justice Salmon’s judgement in the prevention principle case of *Peak v Mckinney* (1970), where he said in that judgement...

> " *I cannot see how, in the ordinary course, the employer can insist on compliance with a condition if it is partly his own fault that it cannot be fulfilled: Wells v Army & Navy Co-operative Society Ltd; Amalgamated Building Contractors v Waltham Urban District Council; and Holme v Guppy. I consider that unless the contract expresses a contrary intention, the employer, in the circumstances postulated, is left to his ordinary remedy; that is to say, to recover such damages as he can prove flow from the contractor's breach. No doubt if the extension of time clause provided for a postponement of the completion date on account of delay caused by some breach or fault on the part of the employer, the position would be different. This would mean that the parties had intended that the employer could recover liquidated damages notwithstanding that he was partly to blame for the failure to achieve the completion date. In such a case the architect would extend the date for completion, and the contractor would then be liable to pay liquidated damages for delay as from the extended completion date*."

At paragraph 36, Lord Justice Coulson states,

> "…*There is no suggestion in the authorities noted above that the parties cannot* ***contract out of some or all of the effects*** *of the prevention principle: indeed, the contrary is plain. Salmon LJ's judgment in Peak v McKinney, set out at paragraph 33 above….expressly envisaged that, although it had not happened in that case, the parties could have drafted an extension of time provision which would operate in the employer's favour****, notwithstanding that the employer was to blame for the delay*****.**" (emphasis added)

As analysed in section 8 of the paper above, Lord Justice Salmon's point that, "*I cannot see how, in the ordinary course, the employer can insist on compliance with a condition if it is partly his own fault that it cannot be fulfilled: …No doubt if the extension of time clause provided for a postponement of the completion date on account of delay caused by some breach or fault on the part of the employer, the position would be different*", is that the parties may amend the basic rules (rules 1 and 2 identified by Lord Fraser in *Bilton*), by including a comprehensive extension of time clause which can revise the date by which the Contractor needs to complete the Works on account of Employer delay events.

Lord Justice Salmon is **not** saying that the parties can agree in their contract that the prevention principle just does not apply to their contract at all. He's saying that they can amend the contract by including an extension of time clause, so that **the effects** of the prevention principle do not bite.

Lord Justice Coulson says that the Employer can draft an extension of time clause which would operate "*in his favour*" (which **on the face of it** appears to mean – as in this current case - no entitlement to extension of time) "*notwithstanding that the employer was to blame for <u>the delay</u>*".

THE delay, he says. Not some of the delay, or another part of delay which was caused by the Contractor (in which case "*in his favour*" could be taken to mean "such that the effects of the prevention principle fall away",). Not even partly responsible for the delay. He says, "*the employer was to blame for* ***the*** *delay*". (emphasis added).

This looks like it would be an extension of time clause, which does not give an extension of time where "*the employer was to blame for the delay*", and an LDs clause which would allow the Employer to take damages where he was himself (solely) "*to blame*".

But on reflection, it seems more likely that Lord Justice Coulson is doing no more in this particular paragraph than (if I may say so, correctly) re-stating the point made by Lord Justice Salmon (and by Lord Fraser in *Percy Bilton*), that the parties can include an extension of time clause and thereby avoid the effect of the principle. Lord Justice Coulson refers to contracting out of "***the effects***" of the principle, not the principle itself. It's clear that Lord Justice Coulson appreciates this interpretation, as he appears to have taken care to ensure that his wording adheres to it.

Also has to be noted though that Lord Justice Coulson is using this point to argue that the parties can go further than Lord Justice Salmon did. In effect Lord Justice Coulson appears to be using Lord Justice Salmon's point (that the parties can contract out of the effects of the prevention principle by including an extension of time clause), in order to support a position that the parties can contract out of the

application of the principle entirely (and thereby don't need an extension of time clause). **This seems entirely illogical.**

Also note, the comment at paragraph 35, "*for the purposes of this particular contract*", hints at a contracting out of the principle, as opposed to the effects of it.

The Fourth point

As analysed in section 8 above, the prevention principle appears to flow automatically from the own wrong principle, so if Lord Justice Coulson is throwing out the prevention principle, it's difficult to see how he might be keeping the own wrong principle.

This would not appear to be supported by any of the relevant authorities, other than the obiter of Justice Potter in *Richo International v Alfred C Toepfer International* (1991). Furthermore it would would fly in in the face of:

- The apparent fact that the principle disallowing such provisions was first developed by Lord Coke against a "repugnant" alternative, in respect of which he argued the judiciary retained the right to reject any provision introduced by **Parliamentary Statute** to the contrary.
- **The principle is so important that word of it has been carefully passed down through the word of generations of judges for 400 years (only to be thrown onto the bonfire in the 21st century).**
- Lord Finlay in the House of Lords in *New Zealand Shipping Co v Société des Ateliers et Chantiers de France* (1919) stating *that, "a man shall not be allowed to take advantage of a condition which he has brought about himself*"
- Lord Atkinson in the House of Lords in *New Zealand Shipping Co v Société des Ateliers et Chantiers de France* (1919) stating *that, "a man shall not be permitted to take advantage of his own wrong*"
- Lord Wrenbury in the House of Lords in *New Zealand Shipping Co v Société des Ateliers et Chantiers de France* (1919) stating *that,* "*He…has no option of avoiding it in his own wrong*"
- Lord Shaw in the House of Lords in *New Zealand Shipping Co v Société des Ateliers et Chantiers de France* (1919) stating *that, "When a contract describes an event or events which may happen, and declares that on the occurrence of any these events the contract shall become void…Such a contract may be declared void…at the instance of that party who has not by his own wrong or default brought about the event, or in Coke's words, has not been, "the mean that the condition could never be performed".*
- Lord Ellenborough – former Lord Chief Justice and Attorney General – describing the wider principle as, "*an universal principle of law*"
- The particular narrower prevention principle having been introduced and maintained during and notwithstanding the historical peak of the freedom of contract movement.
- The rule in *Holme v Guppy* being that, "*he is not liable*". That's an imperative.
- Chitty on Contracts taking the same unequivocal position until at least 1989 (this was the next edition after the 25th edition of 1983).

- The principle being a Unidroit Principle of International Commercial Contracts, and furthermore as an imperative. And furthermore it is stated therein, "*When the article applies, the relevant conduct does not become excused non-performance but loses the quality of non-performance altogether*"
- The only English authorities which appear (so far as this researcher can find) to be contrary, both stating that their findings related specifically to the application of the wide rule to the issue of rescinding a contract, i.e. not to damages, aside from obiter in ONE first instance judgement.
- *Percy Bilton v GLC*, Lord Fraser, in which the principles were set out.
- *Alghussein Establishment v Eton College (1988)* in the House of Lords, Lord Jauncey of Tullichettle said that, *"no man can take advantage of his own wrong".*
- VK Rajah J's description of the alternative as being one which, "*offends all sensible norms of commercial intercourse to allow*"
- Multiple House of Lords and Supreme Court decision supporting the related penalty rule which interacts with the wider principle,

The Fifth point

Similarly, and backing up the contentions in the two previous points, at paragraph 30 Lord Justice Coulson states that, "***the prevention principle is not an overriding rule of public or legal policy****. There is no authority for such a proposition",.*

Again as analysed in section 8 above, the prevention principle appears to flow automatically from the own wrong principle, so it is difficult to see how Lord Justice Coulson could be saying that the prevention principle is not an overriding rule of public or legal policy, without applying the same to the own wrong principle.

He then continues, "*the prevention principle is not an overriding rule of public or legal policy. There is no authority for such a proposition: it is not expressed in those terms in* ***Multiplex*** *or any of the other authorities noted above*."

This is by no means the most controversial part of the judgement, but it's immediately noticeable, that in the centuries of authority on the point (at least 2 centuries, and probably at least 4 centuries), including from judges as eminent as:

- Lord Ellenborough (Attorney General and Lord Chief Justice)
- Lord Coke (Chief Justice, for some greatest judge of the Elizabethan era)
- Lord Esher (Master of the Rolls, eminent international diplomat)
- Lord Justice Chitty (grandson of the most eminent authority on contracts)
- Lord Denning (arguably the most famous judge of the 20th century)
- And various other serving law lords (these are literally amongst the most eminent judges in English legal history)

Lord Justice Coulson has decided that the focus should be on the 2007 judgement of Justice Jackson (no disrespect to Justice Jackson intended whatsoever), who in fact avoided taking an express term based approach and instead went down an intervening event route.

In terms of "other authorities", it would seem to fly in the face of:

- Rede v Farr (1817) House of Lords "***universal principle of law***"
- *Roberts v The Bury Improvement Commissioner (1870) "**no person can take advantage**"*
- *New Zealand Shipping Co v Société des Ateliers et Chantiers de France* (1919) House of Lords Lord Finlay "***shall not be allowed***"
- *New Zealand Shipping Co v Société des Ateliers et Chantiers de France* (1919) House of Lords Lord Finlay "***shall not be allowed***" Lord Atkinson "*a man shall not be permitted to take advantage of his own wrong*"
- *Alghussein Establishment v Eton College (1988)* House of Lords "***no man can***"
- *Société Générale (London Branch) v Geys (2012*) (obiter, refers to House of Lords) *"**the doctrine of deemed performance**"*
- *Percy Bilton Ltd v Greater London Council* (1982). Lord Fraser states that the "*rules*" can be "amended" (in the manner which he sets out), not that they can be disregarded. The parties can amend the rules, so as to amend the effect of the principle. They can not amend the principle itself. He does not mean that the parties have the power to change the rule in *Holme v Guppy*.

The Sixth and Seventh points

The further supporting evidence which Lord Justice Coulson presents apparently in support of an argument that the principles can be fully contracted out of, appear unconvincing.

His first argument begins at paragraph 29 of the judgement, where he asserts that it was a, "***bold proposition*** (by North Midland's counsel) *that the prevention principle was a matter of legal policy"*

The Sixth point is that Lord Justice Coulson relies for this finding in part on the point that, "*The Interpretation of Contracts, 6th edition, at paragraph 6.14, Sir Kim Lewison deals with the prevention principle in the chapter concerned with implied terms*."

Mr Robert Fenwick Elliott/ A R Marshall of Hogan Lovells International LLP explain in a 2021 article[167], "*Sir Kim Lewison is himself considerably more hesitant than Coulson LJ suggests, in paragraph 6.14 of The Interpretation of Contracts, as to how the principle operates – saying that it "***may be a positive rule of the law of contract"***, although he does go on to "submit" that "it "may properly be categorised as an implied term"*.

The article further points out that, *"Lord Denning MR…did not regard the prevention principle as operating by means of an implied term – in Trollope & Colls Ltd v North-West Regional Health Board, His Lordship…put this conclusion on two different bases – first, on application of the prevention principle, as enunciated in Dodd v Churton (1897); and, separately (referring to this as "another approach"), via the*

[167] https://feconslaw.com/2021/10/11/more-on-prevention-as-a-a-rule-of-law/

route of implying a term. There was no hint of a suggestion from Lord Denning that the prevention principle itself operated by means of an implied term."

Furthermore, it seems that the principle's origins were in Lord Coke's 'void conditions'[168], which would appear to be the opposite of an implied term.

The Seventh point is that At paragraph 30 Lord Justice Coulson states that, "*I do not consider that it is analogous to the rule which strikes down liquidated damages as a penalty, a rule which has an entirely different legal provenance*". No reasoning for this is provided, but it could be noted that in fact the two principles work hand in glove with one another (see number 5 in the First point, above), and furthermore that the own wrong rule seems to pre-date the penalty rule by at least 250 years.

The Eighth and Ninth points

Lord Justice Coulson's third argument, at paragraph 37 is to suggest that the approach is supported by the fact that when Justice Akenhead considers the issue of concurrent delay in *Walter Lilly and Co Limited v Giles Mackay and Another*[169], he states that the matter is resolved by, "*a straight contractual interpretation*".

The Eighth point is that this is a far cry from a conclusion that the prevention principle can be contracted out of. Indeed, It's hard to see any connection at all. There appears to be no indication in the words of Justice Akenhead which Lord Justice Coulson cites, which rejected any other potential approaches beyond the straight contractual approach. it is abundantly clear from the passage cited, that Justice Akenhead is making the same point as Lord Justice Salmon and Lord Fraser, i.e. that an e.o.t. clause is needed to cover the Employer delay and oust the effects of the prevention principle. In fact it seems clear that Justice Akenhead is making the **opposite** point to that attributed to him by Lord Justice Coulson. Justice Akenhead said, "*Part of the logic of this is that many of the relevant events would otherwise amount to acts of prevention and that it would be wrong in principle to construe cl.25 on the basis that* the contractor should be denied a full extension of time in those circumstances…". in other words, if the clause was construed as not allowing an extension of time, then the prevention principle would be invoked. This is also **opposite** to the conclusion reached by Lord Justice Coulson on the concurrency point (see the First Point, above).

The Ninth point is that furthermore, Lord Justice Coulson appears to contradict himself. At paragraph 36 he says, "*Akenhead J's analysis in Walter Lilly was unconnected to the prevention principle*". This is notwithstanding that in the next paragraph he appears to try to rely on it as being relevant (to the argument).

The Tenth, Eleventh and Twelfth points

Lord Justice Coulson argues at paragraph 31 that the parties have validly expressly agreed to exclude the prevention principle, on the basis that the contract did contain a clause which said there would be an extension for, "*any impediment, prevention or default, whether by act or omission, by the Employer*", and that that thereby "*gave*

[168] **Co. Litt 206b**
[169] [2012] EWHC 1773 (TCC)

rise to a prima facie entitlement on the part of the appellant to an extension of time", but that, *"**time was not set at large because the contract provided for an extension of time on the occurrence of those events***". (emphasis added).

The Tenth point is that this seems to be on the basis that the approach is valid, if it gives with one hand and takes away with the other.

But there's no logic or authority for such an approach. By this approach the parties could equally agree to an extension of time for, "*any impediment, prevention or default, whether by act or omission, by the Employe*r…*but not if it happens on a Tuesday, or any time next year*".Or an argument which said that, "*time was not set at large because the contract provided for an extension of time on the occurrence of those events…The parties have expressly agreed though, not on a Tuesday. Or next year*".

The result is that the clause does not cover the delay, as the prevention principle requires it to.

The Eleventh point is that the clause doesn't even appear to achieve the giving and taking away in any case. For one thing, the concurrent delay clause is included before the Relevant Events are listed. How can something be taken back before it has even been given?

The Twelfth point is that Lord Justice Coulson ignores that findings of the Supreme Court in the case of *Bunge SA v Nidera BV* (2015)[170] (*"Bunge*"),

> An LD clause will be assumed not to attempt to put the Employer "*in a far better position than if the breach had not occurred*" in the absence of clear words[171].
>
> A Liquidated Damages clause will be assumed not to operate "arbitrarily" in the absence of clear words[172].
>
> A Liquidated Damages clause will be assumed not to attempt to allow the party to recover, "*what may be very substantial damages in circumstances where there has been no loss at all*" in the absence of clear words. [173]

The Thirteenth point

If there is any right to completely exclude the principle, then clearly at a minimum it needs to be stated very clearly.

It might conceivably be possible to agree a contract whereupon a contractor agrees to complete within the 60 days time limit, then he still has to finish on time notwithstanding that I might order extra work (*Jones v St John's College Oxford*, 1870). In *Wells v Army & Navy (1902)*, it was held that a clause which provided that

[170] [2015] UKSC 43
[171] Lords Toulson, Neuberger, Mance and Clarke in Bunge
[172] Lords Sumption, Neuberger, Mance and Clarke in Bunge
[173] Lords Toulson, Neuberger, Mance and Clarke in Bunge

the ordering of extra works, "*is not to vitiate the contract or the claim for penalties*" was not sufficiently clear to make the agreement an absolute contract, and thereby oust the prevention principle. It would need to be stated explicitly.

But with regards to going beyond the ordering of extra work, it seems difficult. The Privy Council in *New Zealand Shipping Co v Société des Ateliers et Chantiers de France* (1919), held that a clause which expressly purported to allow a party to rely upon it in a situation which had in fact only came about due to that party's wrongful act, would be invalid. This would seem to apply equally to a situation where a contract stated that the Employer could take damages for periods of delay which he has caused himself (or partly himself). Indeed, the contrary is plainly ridiculous.

The same approach was followed or implied in the House of Lords in *Trollope and Colls* (1973) and *Percy Bilton v GLC* (1982).

In *Alghussein Establishment v Eton College* it is understood that the House of Lords held a clause invalid which stated that if the building development on the land which was subject to a lease agreement remained uncompleted by a certain date "*for any reason attributable to the wilful default of*" the lessor, then the lessee will have to pay for the lease of the land which due to the wilful default of the other party can not, or can not yet, be used for the purpose intended.

In *Goodriaan v Jenda Corporate Holdings Ltd & Ors* (2019)[174] Justice Quinn referred *Alghussein Establishment v Eton College*. He says, "*The House of Lords approved the principle in Rede v Farr…and treated the principle as one of construction. Lord Jauncey of Tullichettle continued as follows, '*Although the proviso referred specifically to the willful default of the tenant it does not state that the tenant should be entitled to take advantage thereof. It is one thing for wilful default of a party to be made the occasion upon which a provision comes into operation, but it is quite another thing for that party to be given the right to rely on that default".

So what is needed appears to be a double provision, in which:

1. An express statement is made that a right is created in a particular situation if or even if it is created by a party's default or wrong AND
2. An express statement is made that a party whose default or wrongful conduct has brought that situation about, is entitled to <u>enforce or rely on</u> that right which has *prima facie* been created.

This could be construed (just barely) as being in accordance with some aspects of the findings in the *New Zealand Shipping* case in which it was held (in separate speeches from 4 different Lords) that per (Lord Wrenbury), "*The rule is that in a contract "void" is to be read as "voidable", if the result of reading it as "void" would be to enable a party to avail himself of his own wrong to defeat his contract….The contract is not void in favour of or "*voidable at the option of*" the party in default…He cannot say that it is void, and has no option of avoiding it in his own wrong*".

Even this possible derogation from a strict rule relates to (as do all of the appeal cases which allow some kind of relaxation) the creation or death of a contract, based

[174] [2019] IEHC 621

on termination at will or creation at will. There is no precedent for a delay at will clause.

Lord Justice Coulson conversely decides that the words, "*any delay caused by a Relevant Event which is concurrent with another delay for which the Contractor is responsible shall not be taken into account*" (when calculating extension of time), would (para 45) "*expressly permit the employer to levy liquidated damages for periods of concurrent delay, because it would not grant the appellant relief against such liability by extending the completion date*."

But that's at best a one stage test, not two. Lord Justice Coulson says himself that the clause was, *"'designed to do no more than reverse the result in…Malmaison*"

The Fourteenth point

In Goodlife Foods Ltd v Hall Fire Production (2018)[175] Lord Justice Coulson said in relation to unusual terms he would consider, "*on the one hand, the degree of onerousness of the clause and, on the other hand, the degree of notice required*.". Yet in this case, the judge appears to be allowing a clause which potentially has a huge effect on the global construction industry by allowing sub-critical Employer delay to be disregarded, by virtue of a clause which the judge himself says has the appearance of being no more than an attempt to reverse the effect of the (almost inconsequential) concurrency point in *Walter Lilly*.

The concept of the prevention and wider doctrine being capable of rejection by means of an implied term, particularly the one of the nature relied on by Lord Justice Coulson, also seems unviable in terms of the amount of notice given.

At paragraph 35, the judge states that the express concurrency clause included in the contract in *North Midland* was, "*designed to do no more than reverse the result in…*Malmaison Hotel (Manchester) Limited *and* Walter Lilly *for the purposes of this particular contract*".

And that fact highlights the weakness of the argument. It was not designed to oust the provisions of the prevention principle (even if it could have theoretically succeeded in doing so).

One might ask, how can North Midland Building, a local independent building firm be taken to have expressly agreed to oust the prevention principle, when Lord Justice Coulson himself says that the clause was, "*designed to do no more than reverse the result in…Malmaison*" ?

The Fifteenth point

Furthermore, there is a conceptual problem from the point of view of logic, because it's difficult to see when the prevention principle would ever apply in the situation outlined by the judge.

[175] EWCA 1371

In his 2019 Society of Construction Law paper "Prevention or cure", Lord Justice Coulson contends that (para 17), "*if there is no extension of time mechanism, time would be at large*" (in the event of an act of prevention by the Employer). But where is the logic in saying that the prevention principle doesn't apply if the parties have agreed:

i) An extension of time for employer delays
ii) But not in certain circumstances (in this case concurrent delay)

but that it does apply if the parties don't include an extension of time clause at all, and just include an express liquidated damages clause?

Lord Justice Coulson says himself at paragraph 45 that, "*if clause 2.25.1.3(b) is a valid and effective clause, as I consider it to be, then it would expressly permit the employer to levy liquidated damages for periods of concurrent delay*"

Surely then by Lord Justice Coulson's logic, they have "expressly" permitted the Employer to take LDs by including an LD clause but no extension of time clause?

In which case the principle which he says is *in principle* valid, will simply never apply. In regards the prevention delay principle, something which is an automatic consequence of a principle which has applied as a vital and fundamental rule of law for over 350 years, has been turned instantly into a theoretical concept which will never arise.

The Sixteenth point

Taken its extreme, the consequences of allowing parties to avoid the own wrong rule would allow an Employer to order the Contractor off site a day before it was going to complete and a day before the Completion Date, tell him that the site's closed and he will only allowed back in in 6 months, and then charge him 6 months liquidated damages.

What kind of tinpot system of law would allow that? Taken at face value, it is submitted it would be a proposition which to the officious bystander (as referenced by Lord Justice Coulson in paragraph 46 of the judgement) or to his friend the reasonable man, would seem preposterous.

As Robert Fenwick Elliott/ A R Marshall of Hogan Lovells International LLP said in a 2021 article[176], "*On any sensible, or even half sensible, commercial approach to the law, this should be an anathema*." As Rajah J explained in Singapore (*Evergreat Construction Co Pte Ltd v Presscrete Engineering Pte Ltd* [2006][177]("*Evergreat Construction*"))…."*It offends all sensible norms of commercial intercourse to allow a party in breach of its contractual obligations to rely on its very breach to either evade responsibility or, even more farcically, to assert that the other contracting party must also willy-nilly accept or sustain the consequences of that breach*."
It seems no wonder that Lord Coke regarded it as "repugnant".

[176] Prevention And All That | Robert Fenwick Elliott (feconslaw.com) Prevention and All That 4/10/21
[177] 1 SLR(R) 634

The Seventeenth, Eighteenth and Nineteenth points

At paragraph 12 of the judgement it's stated that, "*As a result of these decisions* (such as *Holme v Guppy* and *Dodds v Charlton*), *construction contracts began to incorporate extension of time clauses, which provided that, on the happening of certain events (which included what might generically be described as 'acts of prevention' on the part of the employer), the date for completion under the contract would be extended, so that liquidated damages would only be levied for the period after the expiry of the extended completion date. Such clauses* ***were not, as is sometimes thought, designed to provide the contractor with excuses for delay****, but rather to protect employers* (from the effect of the prevention principle)*, by retaining their right both to a fixed (albeit extended) completion date and to deduct liquidated damages for any delay beyond that extended completion date*".

The Seventeenth point is that the reference to the noun "excuses" by the Contractor for its delay (as opposed to the legal verb to excuse) in the context of a commentary upon delays caused by the Employer, is at best unfortunate.

The Eighteenth point (and this does have significance) is that the contention that in the 19th century "*construction contracts began to incorporate extension of time clauses"* due to court judgements relating to the prevention principle, is questioned.

The 19th century was before the advent of the standard form contract, and probably nobody has much of a handle on the typical content of bespoke 19th century building contracts. However, section 7 above suggests that the development of extension of time clauses and fixed completion dates was likely more of a hand in hand process than suggested at paragraph 12. Indeed, it's doubtful whether most procurers of construction work in the 19th century had any idea about the decisions in *Holme v Guppy* and similar cases.

In fact it's further noted that the 1939 R.I.B.A Standard Building Contract, provided for extensions of time on grounds including:

- Force majeure
- Exceptionally inclement weather
- Fire
- Civil commotion
- Strike or lockout
- Delays by nominated sub-contractors

In 1948 this was amended to include **shortages of labour or materials**[178]**.** So any idea that employers in previous generations would have pushed contractors to the wall if they could have got away with it by charging an income in damages (as the 21st century judges appear to prefer), seems unlikely in most cases.

The Nineteenth point, is that if it is true that the extension of time clause was introduced because of the decisions in *Holme v Guppy*, then it seems like a sensible thing to protect the principle introduced in that decision, not to oppose it, which judgements such as this one seem to have the effect of doing. It would seem untenable and unfavourable to all parties to construction contracts for extension of time clauses to be eroded.

[178] This provision, or a similar provision remained in force until the 1980 form.

The Twentieth point

At paragraph 44 it's stated that, "*the primary purpose"* (i.e. today) *"of an extension of time provision is to give the contractor relief against the levying of liquidated damages for delays which were not his responsibility under the contract: see Peak v McKinney.*"

In fact it's not clear that the contention is accurate because:

i) Extension of time clauses are included in contracts which are typically used in jurisdictions where there has never been a prevention principle, such as the FIDIC forms typically used in the GCC. This author has been involved in numerous projects in the GCC (including those involving the most unreasonable Employers). and has never seen or heard of a contract which does not contain an extension of time clause.

ii) Extension of time clauses typically include 'neutral events', the absence of which would not offend the prevention principle in any circumstances if the contract did not allocate the risk of them occurring.

iii) There seems to be no evidence that there has been any rush since this judgement (which suggested that the prevention principle can be contracted out of), for construction contracts to be agreed with a fixed completion date and without an extension of time clause. Clearly, absent an oversite, no Contractor would sign up to such a provision.

iv) Extension of time clauses were prevalent long before the prevention principle was 're-discovered' in the 1970s (see the various grounds listed above which were included in the 1939 R.I.B.A. form).

Rather, it is suggested, the primary purpose of an extension of time clause may be to deal with risk in a reasonable and workable manner, by (to the same effect) providing for appropriate additional time in which to perform taking into account the Employer's risk events in addition to the original contract scope.

The Twenty First point

To the extent that Lord Justice Coulson is correct in his assertion in paragraph 12 and/or paragraph 44, it is clear when the logic of the prevention principle is analysed (and is also clear from the wording of most if not all of the relevant 19th and 20th century judgements) that the reason why the extension of time clause is needed in order to protect the Employer from the 'mischief' of the prevention rule, is that the extension of time clause pushes out the completion date in order to take account of Employer risk events (see item number 5 in The First Point above in this section of the report). That is the reason why the extension of time clause keeps the LDs alive. It changes that absolute completion obligation from an obligation to finish by date X to one to finish by date Y or Z, based on an aggregation of Employer risk events. In that way, the completion obligation can be enforced to the extent that delays to the original date were not on account of the Employer's acts.

Therefore, logically, by Lord Justice Coulson's own argument (assuming that his argument to the effect that the prevention principle is not related to concurrent delay fails, which respectfully it does), the fundamental purpose of an extension of time clause is that it aggregates the Employer risk events and adjusts the Completion Date accordingly (in fact it is the same whichever way you look at it, see Section 3).

By giving concurrent delay to the Employer, the clause fails to achieve that aim.

The Twenty Second, Twenty Third, Twenty Fourth, Twenty Fifth and Twenty Sixth points

At paragraph 40, Lord Justice Coulson states that North Midland's counsel argued that,

> "*even if clause 2.26.1.3(b) was enforceable (so that the appellant was not entitled to an extension of time for concurrent delay), there was an implied term which would prevent the respondent in those circumstances from levying liquidated damages. The argument was that such a term went without saying, or was otherwise obvious and/or necessary to make the contract work. Mr Lofthouse QC said that it would be bizarre if the respondent could recover liquidated damages for a period of delay for which it was responsible."*
>
> *"He made plain that he was not arguing that, in consequence, the liquidated damages were a penalty. Instead he put the argument as a matter of causation."*

Lord Justice Coulson rejects that argument.

The first ground which Lord Justice Coulson gives for rejecting this argument is at paragraph 43, "*The first reason is that (**in the absence of any suggestion of a penalty) the liquidated damages provision must be taken to be a valid and genuine pre-estimate of anticipated loss** caused by the delay. **That must remain the case whether the delay is the result of just one effective cause, or two causes** of 'approximately equal causative potency'. So there remains a proper causal link between the delay and the liquidated damages".*

Let's look at some of the authorities on penalties:

- *Bunge SA v Nidera BV* (2015), Lord Toulson said, "*The fundamental compensatory principle makes it axiomatic that any method of assessment of damages must reflect the nature of the bargain which the innocent party has lost **as a result of the repudiation**…"* N.B. (in that case, the breach was a repudiation.
- Lord Sumption said, "*the fundamental principle of the common law of damages is the compensatory principle, which requires that the injured party…be placed in the same situation…**as if the contract had been performed***", and "…*(consideration of) what would have happened if the (breach) had not occurred…seems to be fundamental to any assessment of damages designed to compensate the injured party **for the consequences of the breach***."
- *In Dunlop Pneumatic Tyre v New Garage (1915)*[179]*, Lord Dunedin held (at paragraph 4 that, "*"It will be held to be penalty if the sum stipulated for is extravagant and unconscionable in amount in comparison with the greatest loss which could conceivably be proved to have followed **from the breach**"
- Lord Parker said that, "*Where the damages which may arise **out of a breach of contract** are in their nature uncertain, the law permits the*

[179] [1914] UKHL 1

*parties to agree beforehand the amount **to be paid on such breach**. Whether the parties have so agreed or whether the sum agreed to be paid **on the breach** is really a penalty must depend on the circumstances of each particular case. There are, however, certain general considerations which have to be borne in mind in determining the question. If, for example, the sum agreed to be paid is in excess of any actual damage which can possibly, or even probably, **arise from the breach***"

- In *Clydebank Engineering v Castaneda* (1904)[180] (the forefather of the penalty cases), Lord Halsbury held, "*The second instance in which the Courts have sanctioned interference is in the case of a covenant for a fixed sum or for **a sum definitely ascertainable**, and a larger sum is inserted by arrangement between the parties, payable as liquidated damages in default of payment. Since the damage **for the breach** of covenant is in such cases by English law **capable of exact definition**, the substitution of a larger sum as liquidated damages is regarded not as a pre-estimate of damage but as a penalty in the nature of a penal sum*".

The focus in calculating the loss, is on the amount suffered on account of the breach (or the wrong), not upon the outcome of a combination of events for which both parties were responsible. In this way it accords with the fundamental principle of damages of restoring the injured party to the position it would have been if the contract had been performed by the other party. The loss is the 'extra over' delay caused by the "breach".

The Twenty Second point is that if "breach" is construed as being the fault of the other party i.e. the Contractor, (as suggested by Lord Sumption's reference to "*as if the contract had been performed*"), the Contractor and the Employer have each caused the same delay. There is no "extra over" delay and the penalty rule can effectively have direct application because it only measures extra over delay caused by the fault of the Contractor. This is the first argument against penalties, i.e. even if (see discussion in the Twenty Third point below) Lord Justice Coulson has held that the "own wrong rule" has been ousted by the terms, then the penalty rule in any case effectively has direct effect. The damages are not, as Lord Justice Coulson puts it (without arguments on the penalty point), "*a genuine pre-estimate*" of loss.

The Twenty Third point is that if, conversely, "breach" is construed in the plain sense and the Contractor is *prime facie* responsible for performance irrespective of which party in fact caused the delay, then the Employer could *prima facie* argue that there is 'extra over' delay in the event of concurrent delay, because ultimately timely completion is the Contractor's obligation. But in making this argument, the Employer would be relying on (and therefore benefiting from) its own wrong.

At this juncture we need to consider whether Lord Justice Coulson has rejected the "own wrong" principle in its entirety, or whether he has rejected only the arguably narrower "prevention principle" in the sense described in section 8 of this report.

It's noted that Lord Justice Coulson does not make a distinction. Furthermore, the logic of making any distinction seems unclear, as the prevention principle seems to flow naturally from the own wrong principle. That said, neither does Lord Justice

[180] [1904] UKHL 3

Coulson expressly refer to the own wrong principle. Neither does he refer, when reviewing the authorities, to *Rede v Farr*.

When considering some of the other points raised in this report above, namely:

- **The Fourth point** Rejecting the own wrong rule would fly in the face of authority
- **The Fifth and Sixth points** Treating the own wrong rule as an implied term would fly in the face of authority
- **The Eight point** The rejection of an argument that the "prevention principle" has the same weight as the penalty rule, in spite of the "own wrong" principle (if that is what is under consideration) seeming to predate the penalty rule by a quarter of a millennium.
- **The Sixteenth point** The extreme consequence of such a finding ("*On any sensible, or even half sensible, commercial approach to the law, this should be an anathema*.", "*It offends all sensible norms of commercial intercourse*", would result in a right to charge damages at will).

It is suggested that Lord Justice Coulson's comments must be construed absent clear words to the contrary, as relating only to the prevention rule in delay cases, rather than to the own wrong principle.

It's noted in further support of this conclusion that at paragraph 36, Lord Justice Coulson's finding is that,

> *"If the parties do not stipulate that a particular act of prevention triggers an entitlement to an extension of time, then there will be no implied term to assist the employer and the application of the prevention principle would mean that, on the happening of that event, time was set at large."*

This relates specifically to the prevention rule in delay cases. Previous authorities do not appear to support this approach of allowing contracting out of the prevention principle in delay cases, but this is a conclusion at least that Lord Coke might not have found "repugnant" to the common law. Crucially also, a restriction of the findings on that basis would mean that the Employer is still prevented from relying on its own breach to resist the penalty argument.

The Twenty Fourth point is that in regards to the references in the penalty authorities cited above to an amount being capable of exact definition, for example Lord Halsbury, "*Since the damage…is…**capable of exact definition**, the substitution of a larger sum as liquidated damages is regarded not as a pre-estimate of damage but as a penalty in the nature of a penal sum".* In concurrency and criticality cases, the amount is capable of exact definition. The amount is zero. This would appear to further support both the Twenty Second and Third Second points.

The Twenty Fifth Point relates to the other grounds which Lord Justice Coulson gives for rejecting the argument that damages can not be obtained notwithstanding the extension of time, which were as follows:

- Paragraph 44, "*Given that close linkage, there can be no basis for arguing for a result in respect of liquidated damages that is different to the result in respect of extensions of time.*". Paragraph 45, "(the clause) *expressly permit*(s) *the employer to levy liquidated damages for periods of concurrent delay."*
- Paragraph 45, "(on that basis)*…any implied term which sought to take away that entitlement would be contrary to the express terms of the contract*".
- Paragraph 46, *"it is quite clear to me that any such implied term would not go without saying…and would not be required to make the contract work"*
- Paragraph 47, *"…I do not consider that this result is in any way uncommercial or unreal. A period of concurrent delay, properly so-called, arises because a delay has occurred for two separate reasons, one being the responsibility of the contractor and one the responsibility of the employer. Each can argue that it would be wrong for the other to benefit from a period of delay for which the other is equally responsible"*

These all appear to relate to an argument on the basis of an implied term which, "*went without saying, or was otherwise obvious and/or necessary to make the contract work".*

It should be noted that:

- The statement in paragraph 44 is predicated upon the statement that, "*the primary purpose of an extension of time provision is to give the contractor relief against the levying of liquidated damages for delays which were not his responsibility under the contract: see Peak v McKinney.*" But as set out in the Twentieth point above, that statement does not appear to be correct.
- As explained in the Second Point above, the statement in paragraph 47 that, "*each can argue that it is a fair result"* is also invalid.
- The statements in paragraphs 45 and 46 appear to relate to the implied term that, "*went without saying, or was otherwise obvious and/or necessary to make the contract work".* This does not discount however reliance on the "*own wrong*" rule, which has not been argued separately to the prevention principle (see the Twenty Third point).

The Twenty Sixth point The doctrine of deemed performance doesn't appear to have been considered, nor the use of the own wrong rule in equity (see the Singapore cases[181]).

The Twenty Seventh point

This might seem pedantic to the point of being disrespectful (which is not intended), but it ends with a point of general importance.

Lord Justice Coulson contends that, "*in the 1980's and 1990's, extension of time clauses became more complex".*

[181] Yap Boon Keng Sonny was thereafter applied in Chua Tian Chu and another v Chin Bay Ching and another [2011] SGHC 126 ("Chua Tian Chu") (at [62]).

In support of that conclusion, Lord Justice Coulson refers to the extensive bespoke extension of time clause in the case of *Multiplex Constructions (UK) Limited v Honeywell Control Systems Limited (No.2) [2007] BLR 195.*

Whatever the content of that contract, and whilst it's noted that Lord Justice Coulson's comments may include consideration of amendments to standard forms, the JCT Standard provision is almost identical today to the 1980 clause. In 2000 (at the end of the 1990s) it was effectively identical to the 1980 equivalent.

Furthermore, it could be noted that extension of time was dealt with in a very simple and straightforward manner until the end of the 20th century (see sections 9-11 of this report above). There was no critical path analysis. There was no concurrent delay argument. There was for the most part no computer software. On that basis, it's difficult to see what amendments to extension of time clauses, parties might *conceivably* have made during the 1980s and 1990s.

Furthermore, the other judgements which have considered concurrency and criticality principles – arising from contracts agreed in the 1980s, 1990s and 2000s - appear (whilst often being described as having some amendments) not to make reference to any particular amendments *to the extension of time clause* when considering its meaning, but rather refer simply to the standard form clause (*Multiplex* excepted).

It's suggested that it's likely that amendments to standard form extension of time clauses grew not during the 1980s and 1990s, but during the 21st century, with the development of complications introduced by new concepts such as in relation to concurrent delay and its twin critical path analysis, and with the probably consequential huge expansion in the global construction legal profession which these decisions feed by facilitating concurrency arguments and the use of critical path analysis to assess extensions of time.

33. CONTRACTING OUT (AFTER *NORTH MIDLAND*)

In *Goodriaan v Jenda Corporate Holdings Ltd & Ors* (2019)[182] Justice Quinn referred to *Levison on the Interpretation of Contracts (6th edition)* and cites a proposition that, "*A contract will be interpreted as far as possible in such a manner as not to permit one party to take advantage of its own wrong*".

Remember that Chitty on Contracts 25th edition 1983[183] Volume 1 General Principles, provided the following:

> "*The parties may expressly provide that the contract sha all ipso facto determine upon the happening of a certain event. But such a provision is subject to the principle that no man can take advantage of his own wrong, so that one party* ***will not be allowed to rely on such a provision where the occurrence of the event is attributable to his own default***" (para 1510, page 829) ***New Zealand Shipping*** cited

This judgement cites that the 33rd edition of *Chitty*[184] dated 2019, provides as follows:

> "*It is a general principle of construction that prime facie, it will be presumed that the parties intended that neither should be entitled to rely on his own breach of duty to obtain a benefit under a contract, at least where the breach of duty is an obligation under that contract*" (para 12-083)
>
> "*This is sometimes presented not as a contractual construction but an implied contractual term that a right or benefit conferred upon a party shall not be available to him if he relies on his own breach of the contract to establish his claim*" (para 13-012)
>
> "*However analysed, the principle is not inflexible or absolute: it may be displaced by express contractual provisions or by the parties intentions to be understood from the express terms: Ricoh International Limited v Alfred C Toepfer International GMBH*" (para uncited)

One can only guess what Lord Coke would make of all that.

The judge then turns to the 1988 House of Lords case of *Alghussein Establishment v Eton College.*

Justice Quinn concluded that in the present case, "*there are no provisions mandating the exclusion of the principle of construction that a party cannot benefit or take advantage of its own breach of contract*".

This principle of construction approach appears to reject Chitty's revised approach, and also (at least in relation to willful default – although the facts are not clear) Lord Justice Coulson's implied term approach. It must be noted that the use of the word

[182] [2019] IEHC 621
[183] Published by Sweet & Maxwell
[184] Published by Sweet & Maxwell

"*willful*" in the *Eton College* judgement, is on account of that word being used in the contract clause which was being considered.

In *MP Water Pty Ltd v Veolia Water Australia Pty Ltd (No 3)* (2021)[185], the New South Wales Supreme Court recognised, the "prevention principle", in so far as "*it precludes a party from insisting on the performance of a contractual obligation by the other party if the first party's wrongful conduct is the cause of the other party's non-performance*"[186], i.e. the 'own wrong' rule.

It is understood that the judge held that the rule/principle can be contracted out of by express terms, which was achieved by requiring the contractor to remedy a fault caused by the employer. The precise findings aren't clear from the research undertaken in preparing this paper and from the judge's findings (although the article cited provides a good explanation), and it may be an intervening act type case.

The Singapore case of *Ng Koon Yee Mickey v Mah Sau Cheong* (2022)[187]
In the Appellate Division of the High Court, relied upon *BDW Trading Ltd (t/a Barratt North London) v JM Rowe (Investments) Ltd* [2011] and *Petroplus Marketing AG v Shell Trading International Ltd* [2009] 2 Lloyd's Rep 611 at [17]) in support of the premise that the parties can expressly contract out of the own wrong rule. However, he decided on the facts of the case that (para 84),

> *"Even though the SPA gave Mah the sole discretion to terminate the SPA if the Closing Date did not materialise by the stipulated date, nothing in the agreement indicated the parties' intention to allow Mah to do so even if the Closing Date did not materialise because of Mah's own breach. Therefore, we are of the view that the prevention principle would potentially apply in this case."*

It is suggested that the reference to *Petroplus* is incorrect (see 17.7 above).

The judgement revealed that an "established legal maxim" which ensures that whoever "*prevents a thing from being done shall not avail himself of the non-performance he has occasioned*", was included in "*H Broom, A Selection of Legal Maxims, Classified and Illustrated (8th Ed) at p 235*", an 1874 publication from America. An available online extract from that book explains that it deals with "Rules of Law" of vital importance.

[185] [2021] NSWSC 1023
[186] https://www.molinocahill.com.au/news/supreme-court-of-nsw-considers-exclusion-of-the-prevention-principle/
[187] [2022] SGHC(A) 33

34. CONCLUSIONS

The principle which stops a party to a contract from benefiting from its 'own wrong' has been established as a "universal principle of law" since at least 1817.

In fact its origins appear to go back to at least the first decade of the 17th century when Lord Coke appears to have labelled any contrary provision a 'void condition' "repugnant" to the common law, and argued that the principle which opposed any such repugnant condition (described in this report as the 'own wrong' principle or rule) gave the judiciary the power to reject any offending parliamentary statute.

The principle was adopted into a doctrine of deemed performance in *Holme v Guppy* in 1836. It was adopted (as what is known today as the prevention principle) into the treatment of delayed performance of a contract with the *Dodds v Churton* decision in 1897, the logic of which is that where the purchaser himself prevents performance of the contract in the stipulated time, he can no longer rely upon that stipulated time. It might be said that time becomes 'at large', but in any case any liquidated damages provided for in the contract can no longer be enforced.

It does not go without note, that the period in which these streams which flow naturally from the 'own wrong' river were explained by the Victorian era judiciary, represented the height of the freedom of contract movement in English law. The own wrong family of rules was considered of such vital importance that it was retained and reinforced notwithstanding that freedom movement.

The principle was treated as a "universal principle of law" / 'void condition' until the 1980s. It was stated implicitly as such in Chitty on Contracts 25th edition published in 1983.

The position was re-affirmed by the House of Lords in the 1982 delay/prevention case of *Percy Bilton v GLC*, however one part (his rule number 3) of Lord Fraser's logical explanation from first principles, as to how parties could avoid the effects of the prevention principle by including an extension of time clause, was capable of misinterpretation if it was taken at face value and out of the context of the other rules which he set out.

It might not be co-incidental, that the following year, the Court of Appeal held in *Cheal v APEX* that the *New Zealand Shipping* case (1919) in the Privy Council provided authority for contracting out of the own wrong principle (in relation to rescinding a contract).

This appears to have been a blatant error. All four judgements in the *New Zealand Shipping* case explicitly state that the parties **can not** contract out of the own wrong principle. In giving a very clear explanation, Lord Wrenbury mentioned (in the 1919 judgement) as a final point, that parties are open to agree to contracts which would be voidable at the option of either party. But the point he was making was not that the parties can contract out of the own wrong principle (he had already said that they cannot), but that parties may agree to a **termination at will clause, in which case neither party needs a ground for terminating at all.** Furthermore, in regards delay cases, it should be noted that there is no such thing as 'delay at will', or a 'charge

damages at will' clause, and it would have an entirely different effect to a termination at will clause.

The House of Lords appear to have taken a strict but not absolute line in the 1988 case of *Alghussein Establishment v Eton College*, which has been interpreted by some as introducing what could potentially be seen as a two stage test, requiring that:

1. An express statement is made in the contract that a right is created in a particular situation if, or even if, it is created by a party's default or wrong AND
2. An express statement is made in the contract that a party whose default or wrongful conduct has brought that situation about, is entitled to enforce or rely upon that right which has prima facie been created.

In that case, the House of Lords refused to allow a lessor to rely on an express clause which stated that a lease agreement would come into force notwithstanding that the property subject to the lease was not ready "*for any reason attributable to the wilful default of*" the lessor. The own wrong principle prevailed.

Notwithstanding the House of Lords decision in 1988, the *Cheal v Apex* approach from 1984 was followed by Justice Potter (obiter) *in Richo International v Alfred C Toepfer International*, and by Lord Justice Patten in the Court of Appeal in the 2011 case of *BDW Trading Ltd (T/A Barratt North London) v JM Rowe (Investments) Ltd*.

Lord Justice Patten said in *BDW* that in relation to rescinding a contract the question was, "*what the instrument, read as a whole against the relevant background, would reasonably be understood to mean*". Although efforts were made to frame the interpretation point in the BDW case as *ratio* or the deciding factor, the court also found that as a matter of fact, Barratt was not at fault for the matters which JM Rowe had complained of in any event.

The comments in BDW were expressly stated to relate to recession of a contract, as was the case in *Cheal* (on which *BDW* relied, and which appears to have been wrongly premised on the unrelated right to include a termination at will clause). Neither of these decisions have any bearing on a case of delayed performance. The apparent slight general relaxation in *Eton College*, does not specifically relate to delayed performance cases.

In *Richo (*the 1984 case mentioned above*)*, Justice Potter said (almost 400 years after Lord Coke suggested that anything contrary to the principle must be a void condition) that the standard for rejection of the principle was, "(no) *more than a clear contractual intention to be gathered from the express provisions of the contract*".

Similar comments appear to have been made in obiter musings in the Australian case of *SMK Cabinets v Hili Modern Electrics* (1984), but unlike Lord Justice Patten in *BDW*, did not regard the principle as an implied term.

In *Saga Cruises v Fincantieri* (2016), Justice Cockerill described the premise behind a party's argument (which she agreed with without criticism) as being on the basis that, "*it is not uncommon for liquidated damages clauses to be triggered simply by a date, with no correlation of fault at all….the parties to this contract have on its terms* (a clause was referred to which expressly provided that damages could not be taken

where the contractor was not to blame for the delay) taken *a decision which precludes any claim for liquidated damages by the Owner when the Owner is responsible for the delay*". This seemed to be supporting an approach, or within a hair's breadth of it, such that the prevention principle has to be expressly contracted *into* in order for it to apply. In that case there would be no principle at all.

There are indications that Lord Hamblen also disapproves of the delay principle, if not the own wrong principle.

Lord Justice Coulson's judgement in the Court of Appeal in *North Midland Construction Ltd v Cyden Hom*es (2018), took the *BDW* implied term approach and held that whilst the prevention principle still exists, in this case a clause successfully excluded it by virtue of the parties agreeing to an extension of time clause which did not cover all delay caused by the Employer. This seemed to be justified on the basis that one part of the clause suggested that there was an extension of time entitlement, and another part of the clause said that there (partly) wasn't.

Courts in Australia and Singapore have since taken the approach of contracting out of the own wrong principle.

This author considers the recent developments to be unfortunate. It is clear that the principle has been carefully passed down by generations of judges for at least 400 years, only to be tossed aside over the last 40, notwithstanding apparent affirmation by the House of Lords in 1982 and to all intents and purposes 1988.

One commentator has said that allowing parties to contract out of the own wrong principle is, "*On any sensible, or even half sensible, commercial approach to the law…anathema*.". A Singapore judge held in 2006 that such an approach (at least in regards to breach of contract, although he applied it to a non-breach case), "*offends all sensible norms of commercial intercourse".*

This author agrees with those observations. The prevention principle in construction cases, whilst at first appearing odd, in fact represents a carefully balanced measure developed over 400 years, which allows parties to enter into a bargain on terms which protect the parties' primary entitlements and obligations. The wider 'own wrong' principle from which it naturally flows, seems fundamental to any system of law which represents any kind of safeguarding of justice, practicality or morality.
As explained in Section 32 of this report, in *North Midland Building Ltd v Cyden Homes Ltd 2018*, Lord Justice Coulson held that the parties could rely on an express clause which provided for no extension of time entitlement in situations of concurrent delay.

The court further held that that would entitle the Employer to damages in those circumstances (rejecting an argument of an implied term that such an approach went without saying).

As pointed out in Section 32, the same arguments may be raised in relation to sub-critical Employer delay in order to justify the use of critical path analysis.

It's noted though that whilst no express distinction is made in the *North Midland* judgement between the prevention principle and the own wrong principle, it could be

argued (on the basis of the reasons set out in the twenty third point raised in section 32 of this report) that *North Midland Building Ltd*'s findings on 'contracting out' are limited to the prevention principle in delay cases, and do not cover the arguably wider own wrong principle.

Section 32 of this report raises 27 objections (in the ordinary sense of the word) to the decision in *North Midland Building*. Key arguments which might be raised in other cases in relation to a contracting out of the own wrong principle as it relates to delay damages, may include reference to:

- The Supreme Court rules from *Bunge* on interpreting LD clauses (see point 12 in section 32)
- The rules set out in the House of Lords in *Eton College* (see the 13th point in Section 32) which might require the contract to contain a separate express term stating the right which has been created to rely on the own wrong can be enforced (Eton College)

In the event of a finding that i) a term purporting to disallow extension of time in circumstances of sub-critical Employer delay is effective, *and* ii) that time was *not* thereby set at large, then the potential grounds identified in this report for arguing against the application of damages in such circumstances, could be summarised as follows:

- That the "own wrong" rule can be applied (see the 22rd-26th points in Section 34) in order to negate a defence to the penalty rule.
- That the penalty rule can be applied directly (see the 22nd-26th points in Section 32).
- The doctrine of deemed performance, eg Unidroit Principle of International Commercial Contracts ("*the relevant conduct does not become excused non-performance but loses the quality of non-performance altogether*"), *Roberts v The Bury Improvement Commissioner, Holme v Guppy, Mackay v Dick, Société Générale (London Branch) v Geys*, coupled with the rules on penalties, could have the same effect.
- The possibility of the use of the own wrong principle in equity

Should none of the arguments identified above, or in section 32, be effective (and figure 6 applies), then it would appear that the *North Midland* decision would effectively clear the way (where stipulated by the contract) for critical path analysis in English law.

Parties might wish to note, that should such a position prevail, it would most likely be on the basis that critical path analysis represents an express exclusion of the principle that a party can not benefit from its own wrong, or specifically can not charge damages for delay which it has caused itself. As discussed in Appendix A, such a decision would appear to go against 400 years of legal precedent.

As explained elsewhere in 'the Wrong Path', critical path analysis is a practice which denies contractors appropriate entitlement, is likely a substantial factor in construction insolvencies, and results in significant increases in the cost of

construction projects. Furthermore, logic suggests (as explained in the report) that it slows projects down as parties play the delay game.

Moreover, it has likely been the key factor in the enormous expansion of the world-wide construction disputes industry over the last 20 years,

It would be interesting to see what Lords Coke, Ellenborough, Esher and Denning would think of the recent path which the law has taken in relation to the own wrong principle. This author thinks that they probably would not think particularly highly of such developments.

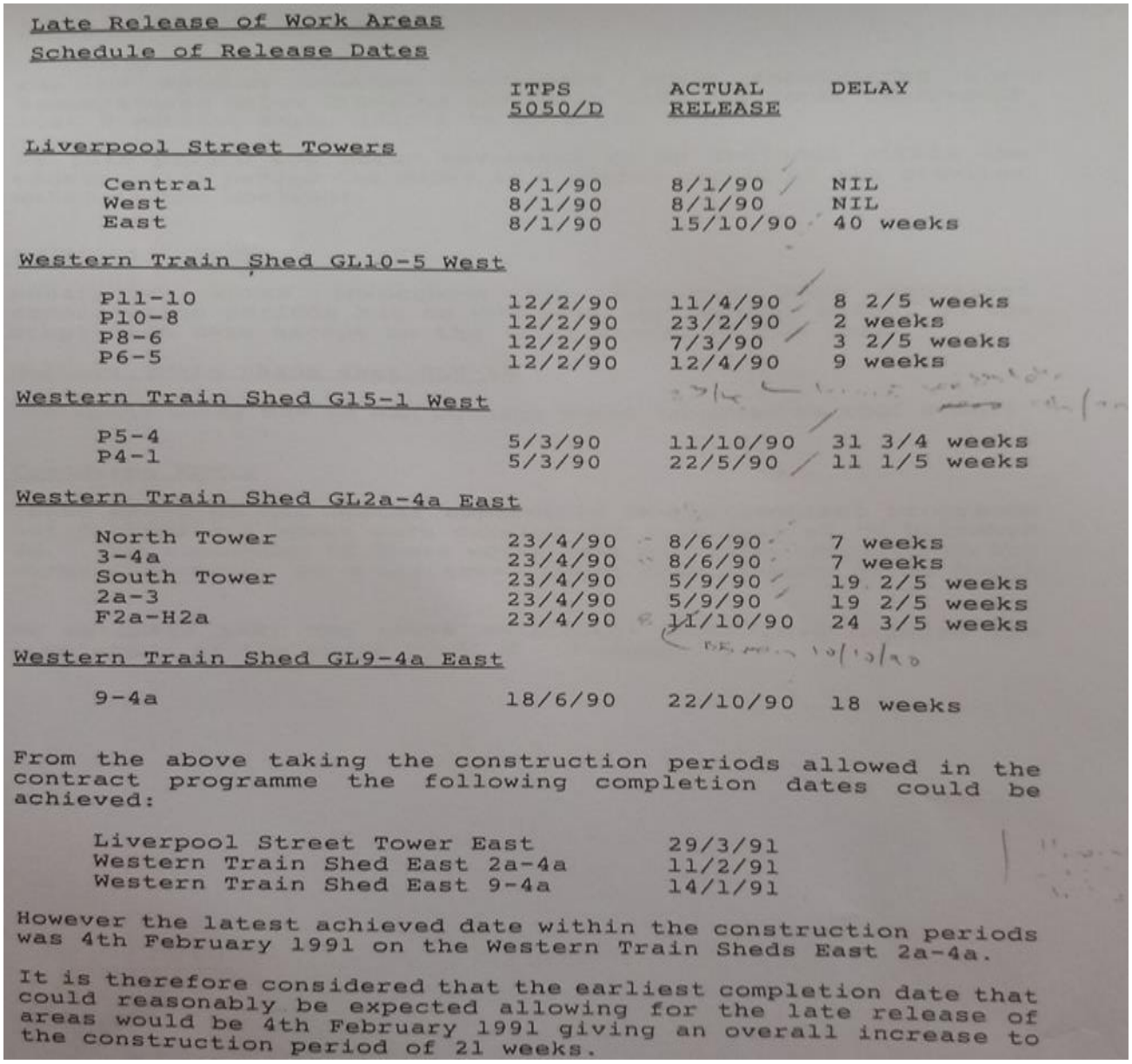
These conclusions are not intended to be definitive and must not be relied upon. Legal advice would be required.

THE WRONG PATH

PART 8

APPENDICES B-F

APPENDIX B AN EOT CLAIM SUMMARY FROM 1991



Late Release of Work Areas
Schedule of Release Dates

	ITPS 5050/D	ACTUAL RELEASE	DELAY
Liverpool Street Towers			
Central	8/1/90	8/1/90	NIL
West	8/1/90	8/1/90	NIL
East	8/1/90	15/10/90	40 weeks
Western Train Shed GL10-5 West			
P11-10	12/2/90	11/4/90	8 2/5 weeks
P10-8	12/2/90	23/2/90	2 weeks
P8-6	12/2/90	7/3/90	3 2/5 weeks
P6-5	12/2/90	12/4/90	9 weeks
Western Train Shed G15-1 West			
P5-4	5/3/90	11/10/90	31 3/4 weeks
P4-1	5/3/90	22/5/90	11 1/5 weeks
Western Train Shed GL2a-4a East			
North Tower	23/4/90	8/6/90	7 weeks
3-4a	23/4/90	8/6/90	7 weeks
South Tower	23/4/90	5/9/90	19 2/5 weeks
2a-3	23/4/90	5/9/90	19 2/5 weeks
F2a-H2a	23/4/90	11/10/90	24 3/5 weeks
Western Train Shed GL9-4a East			
9-4a	18/6/90	22/10/90	18 weeks

From the above taking the construction periods allowed in the contract programme the following completion dates could be achieved:

Liverpool Street Tower East	29/3/91
Western Train Shed East 2a-4a	11/2/91
Western Train Shed East 9-4a	14/1/91

However the latest achieved date within the construction periods was 4th February 1991 on the Western Train Sheds East 2a-4a.

It is therefore considered that the earliest completion date that could reasonably be expected allowing for the late release of areas would be 4th February 1991 giving an overall increase to the construction period of 21 weeks.

This summary is actually from an internal review of entitlement in regards to a claim which had been received.

APPENDIX C PRACTICAL PROBLEMS WITH CRITICAL PATH ANALYSIS

Section 14 addresses critical path analysis generally, and section 14A addresses particular problems with retrospective critical path analysis.

- 14.1 Critical path analysis disregards entitlement (See also 14A.2, 14A.3)
- 14.2 Identifying the critical path is problematic
- 14.3 Problems with baseline programmes
- 14.4 Failure of sequential updates to pick up moment of criticality
- 14.5 The intangible effect of non-critical activities on the critical path
- 14.6 Critical Path Analysis makes resource availability assumptions
- 14.7 Lack of credit for acceleration
- 14.8 Effect of mitigation/acceleration on criticality
- 14.9. Time ownership on a construction project
- 14A.2 Failure to pick up acceleration, mitigation and culpable delay
- 14A.3 Contractual entitlement missed if not assessed at the time
- 14A.4 Effect and cause methods of analysis may not accord with contracts
- 14A.5 CPA is essentially a planning tool

14.1 Critical path analysis disregards entitlement

Critical path analysis completely disregards sub-critical Employer delay beyond the contract Completion Date (see section 5). See also 11A.2, 11A.3 below.

14.2 Problems with identifying the critical path

There's no doubt that there is considerable skill and expertise applied to the techniques of identifying the critical path, nevertheless the process is subjective and uncertain, as therefore so will be the outcome. When demonstrating entitlement is so dependent upon demonstrating the critical path, this can not be a satisfactory solution.

This topic alone seems to have scope for another paper of comparable extent to this one, but the subject matter is outwith the knowledge of this author, and the details are beyond the ambit of this report.

14.3 Problems with baseline programmes

One of the primary methods which has been used to attempt to solve issues in relation to timely completion, and to an extent in relation to the assessment of delays, has been an increasing focus in standard form contracts upon requirements for Contractors to submit and update programmes which can be used for delay analysis.

However, it is almost impossible to predict with accuracy at the start of a complex project, exactly how it will be executed. This is due not least to the fact there is imperfect information available at the start of the project as to exactly what is required, what resources will be available and how they will perform, and also what issues will be encountered along the way.

Moreover, a baseline is not something which should be prepared in isolation. This author has been informed that inter phases between the disciplines and major subcontractors (especially for nominated sub-contractors) need to be clearly identified and defined in the program. The strategy for execution should be formed with the construction team in terms of zoning etc and the same need to be reflected in the schedule. This author has been informed that when it comes to finishing works, most of the dependencies are preferential and would depend on the construction team strategy. **And yet most sub-contractors are usually not even appointed when the main contract is entered into, nor when the Contractor has had to formally submit its baseline programme.**

Furthermore, whilst the Contractor can undertake its own work on the baseline during the tendering stage, Employers invariably don't pay tenderers anything on a project which has a single stage tendering procedure, so tenderers need to keep the costs of tendering down and as a result tend to focus on submitted the price as it is that which will determine whether they are given the job.

The baseline therefore can sometimes become little more than a rushed attempt to comply with a contractual provision.

The programme can also be deliberately misleading as the Contractor may attempt to manipulate the programme in ways which it anticipates might support later critical path based delay claims, as a result of the onerous and unreasonable burden of risks put upon it by the Employer, as described within this report.

And yet the approved programme goes on to form the core basis of many methods of analysing delays. In *Balfour Beatty Construction Ltd v The Mayor and Burgess of the London Borough of Lambeth (2002).* Justice Lloyd said that for an extension of time claim to succeed, *"the foundation must be the original programme".*

In reality, resources can be wasted wrestling with updating the baseline programme thereafter, Employers place unrealistic reliance upon it, often distracting them from focusing on their own delivery obligations, the Contractor's focus may be diverted from completing the project as quickly as possible to planning it in a way that everybody else agrees with, leaving delay analysts to fight with the fact that the baseline upon which their explanations are usually based, was full of errors and bore limited relation to reality even after it has been amended.

14.4 **Failure of sequential updates to pick up moment of criticality**

A problem arises with regards to assessing when an Employer event becomes critical.

Where the event which starts 2nd is an Employer event, then the method of sequential updating will deny the Contractor valid entitlement. In fact generally, Time Impact Analysis does not automatically identify the point at which an activity becomes or ceases to become critical.

Here's an example (starting at the moment where the paths are jointly critical):

Path 1: 4 week event reducing output on the path to 50%. Result, causes 2 week delay to that path.

Path 2: 1 week later than start of event on path 1, a 3 week event, reducing output to 25%. Result, causes 2.25 week delay to that path

When updating the events sequentially, the analyst will pick up a 2 week critical delay to path one, and then a sequential 0.25 week delay to path 2. But this fails to pick up the point where path 2 became critical. The actual critical delay caused is 1.5 weeks by path one, and then a sequential 0.75 week delay to path 2. This is proved below:

Week 1 Path 1 delay 0.5 weeks, Path 2 delay 0 weeks (Path 1 critical)
Week 2 Path 1 delay 1 week, Path 2 delay 0.75 weeks (Path 1 critical)
Week 3 Path 1 delay 1.5 weeks, Path 2 delay 1.5 weeks (It is at this point that path 2 becomes critical and path 1 non-critical)
Week 4 Path 1 delay 2 weeks (1.5 critical), Path 2 delay 2.25 weeks (0.75 critical)

Indeed, the SCL Protocol doesn't even try to identify the moment of criticality, as discussed in Part 5 of this report.

14.5 **The intangible effect of non-critical activities on the critical path**

The works which are not on the critical path are still having an effect upon it, and acting as a constraint upon its progress. Employer delays upon non-critical activities, do in the aggregate at least have effect upon the critical path.

14.6 **Resource assumptions**

Critical path analysis is a planning tool. This author understands (although this should be verified) that its calculations are based on planned resourcing levels, and that its calculations can not incorporate considerations of reduced actual resource availability. This point should be corroborated.

14.7 **Lack of credit for acceleration**

Let's take a look at another example.

There's a very simple project. An Employer event brings the job to a standstill for say 15 days. The Contractor duly submits its notice of delay etc. The Contractor isn't instructed to accelerate, but brings on additional resources anyway and makes up the time. Then near the end of the job when all's going well and the project's expected to finish on time, there's a Contractor problem (its materials are supplied late) and the works are stopped for 15 days. The Contractor finishes 15 days late. This is another simple example, but often the Contractor will accelerate through Employer delay. If the Contractor can't get an EOT for the Employer delay, then it will incur damages, even though on an aggregate basis it has caused no delay.

This is very similar to the situation which Justice Lloyd discussed in *Hammond 2002*, in which he said that the Architect should give back the extension of time to the Contractor for a later delay to Completion if it had not been given an extension of time earlier in the project due to Employer delay using up float.

There is no logic in a Contractor benefiting from making up time against its own progress, and not benefiting from making up time against the Employer's progress, however critical path analysis does not credit back the acceleration.

14.8 Effect of mitigation/acceleration on criticality

A further problem may arise where the Contractor's acceleration or mitigation has the effect of moving the Employer delay off the critical path so that it is not assessed at all in a critical path analysis.

14.9. Time ownership on a construction project

Please see section 23, for a full explanation of this issue in the discussion of concurrent delay.

The essential point as far as critical path analysis goes, is that the Contractor has a right to make up 'lost' time, and is not in default until after the Completion Date has passed. This principle appears to be a problem for critical path analysis which ignores Employer events which do not extend beyond existing Contractor delays.

14A. PRACTICAL PROBLEMS WITH RETROSPECTIVE CRITICAL PATH ANALYSIS

14A.1 Introduction

Of the 11 methods referred to by the SCL for forensic assessments, all take a critical path approach.

The Society of Construction Law Protocol 2nd edition recommends Time Impact Analysis for prospective assessments. In regards to after the event assessments, it states, "*prospective analysis of delay … may no longer be appropriate*", thanks to the findings of various court decisions and the preferences of delay experts. In fact, such decisions appear to be relatively few and far between (see section 12).

Such retrospective methods include the time slice analysis method and the as-planned v as-built windows analysis method, which are understood to be the two most widely adopted approaches internationally to the assessment of extension of time entitlement[188].

14A.2 Failure to pick up acceleration, mitigation and culpable delay

The move towards retrospective approaches seems to be on the basis that delay analysts are not comfortable with "after the event modelling", i.e. not using actual information when it is available. One leading delay analysis expert has said on this matter, "*Modelling techniques, including time impact analysis and collapsed as-built analysis[189] still have many proponents around the world, but we are working to bring*

[188] https://www.hka.com/a-statistical-review-of-delay-analysis-techniques-used-over-the-last-decade/
[189] Obviously this is a retrospective method

them around. With quality schedules, observational techniques are generally preferred.". It's possible to see a day when the analysts have got rid of prospective analysis entirely.

A Haynes Boone article from 2018[190], stated, "***Contractors invariably prefer a prospective assessment because that assessment must be undertaken on a theoretical basis, often resulting in an overestimate of the delay****. By contrast, a retrospective delay analysis will take account of the actual effect of the delay*."

However, it's noted that our fit for purpose model discussed earlier, didn't envisage EOT to be based on actual results, but on reasonable allowances. And it appears that the difference between the two, will be due either to culpable contractor delays (for which, other than as reasonable on a contingency basis, no allowance should be made), or mitigation and/or acceleration (for which no deduction should be made).

The key problem that this presents for retrospective analysis, is that although such analyses are often lauded due to being based on 'actual' information, they will fail to pick this acceleration (and/or culpability) up and will therefore miss entitlement and give an incorrect (and usually understated) extension. It is suggested that this is precisely why observations such as those by Haynes Boone above arise, and why the facts differ from the reasonable predictions. As we have already seen in section 5 above, in theory retrospective and prospective analyses should provide the same result (as observed by Justice Akenhead in *Walter Lilly*).

14A.3 **Contractual entitlement missed if not assessed at the time**

There is another issue though which becomes more pronounced upon recent moves towards retrospective assessments of entitlement.

Whilst it is noted that the SCL Protocol continues to recommend that Contractor administrators do not take a 'wait and see' approach, the move to retrospective critical path and first in time approaches (see Part 5), must be significant factors in the extensive modern practice of the contract administrator 'holding off' making an assessment until later in, or after the project, when complete information is available.

To compound the problem further, the SCL has removed in the 2nd edition of its Protocol guidance with the effect that where a retrospective analysis is undertaken, the adjudicator, judge or arbitrator should put themselves in the position of the contract administrator at the time the Employer risk occurred. If the contract required an assessment to be undertaken at the time, it's difficult to see how a contractually compliant assessment can be made from any other perspective. Furthermore, in many cases there will be an *implied* clause to the effect that the contract administrator is required to make a prompt decision. Eggleston cites Mr Justice Mcfarlan from the Supreme Court of New South Wales in *Perini Corporation v Commonwealth of Australia (1969)* which considered a contract in which there was no express term for the CA to provide a decision on extension of time within any particular period. The judge held, *"…in my opinion it is clear that the exigencies of this particular agreement, as exemplified by all its provisions, require that a decision*

[190] https://www.lexology.com/library/detail.aspx?g=1c13c01a-5a5f-47cd-b221-d025fd200e81

shall not be deferred or delayed…the decision must be given within a reasonable time….the (Contract Administrator)…must not delay, not may he procrastinate, and in my opinion he is not entitled simply to defer a decision…when (the) investigation is complete I am of the opinion that his decision should then be made".

In such cases, where the CA holds off making the decision, the Contractor effectively loses substantive entitlement. Or perhaps there may be an argument (which again is beyond the scope of this report, and again would necessitate legal advice) that the liquidated damages have been invalidated. **Neither result is suitable or satisfactory.**

14A.4 **Effect and cause methods of analysis**

For assessments done forensically, SCL state (emphasis added),*"Certain methods start with the identification and description of an event (a cause) and thereafter seek to establish its impact (the effect) – these are cause and effect type analyses. Other methods start with identifying critical delay (an effect) and thereafter seek to establish what might have caused that delay – these are effect and cause type analyses".*

They then state preference for an effect and cause method when the analysis is done at a later time.

It is suggested that retrospective effect and cause approaches are another instance of the delay analyst's preferences being put before the contract terms, because in many contracts, as noted in another section, the contracts don't ask, 'Is the reason the Works are going to finish later than the agreed period, a Relevant Event, or is it another reason?', rather they ask about Employer delay events (See Section 18).

14A.5 **CPA a planning tool**

Retrospective critical path analysis is a contradiction in terms. Critical path analysis is a tool devised for planning. That has to be done on a prospective basis.

APPENDIX D CLAUSE 25 OF JCT 80

The case law from construction industry cases, relates almost exclusively to the JCT Standard Building Contract. The applicable provisions of the 1980 form of that contract, which many of the cases specifically address, is set out below. Other than a renumbering of the clauses, the provisions remain identical in all versions to the present date, other than as stated below.
Clause 25 of JCT 80 Standard Building Contract, was titled "Extension of time". Its provisions included the following (emphasis added):

> "25.2.1.1
> ***If and whenever it becomes reasonably apparent that the progress of the Works is being or is likely to be delayed**, the Contractor shall forthwith give written notice to the Architect of the material circumstances including the cause or causes**…**"*
>
> "*25.3*
> *.1 **If, in the opinion of the Architect/Contract Administrator**, upon receipt of any notice, particulars and estimate*
>
> *.1.1 **any of the events which are stated by the Contractor to be the cause of the delay is a Relevant Event and***
>
> *.1.2 **the completion of the Works is likely to be delayed thereby beyond the Completion Date***
>
> ***The Architect/Contract Administrator shall…give an extension of time by fixing such later date as the Completion Date as he then estimates to be fair and reasonable**"*

An additional requirement is included in clause 25.3.3 for the Architect to – not earlier than the Completion Date and not later than 12 weeks after Practical Completion - provide any further extension of time on a retrospective basis as is "*fair and reasonable*".

Since 2005, the words, "*The Architect/Contract Administrator shall…give an extension of time by fixing such later date as the Completion Date as he then estimates to be fair and reasonable*", were preceded by, "*save where these Conditions expressly provide otherwise*" (which appears to be reciprocal with the introduction of a requirement for the Contractor to give particulars of delays which are not Relevant Events).

For the purposes of this discussion, the requirements of clause 2.5.3.1, **in situations in which the Architect has been notified of a delay or likely delay in the progress of the works**, can be summarised as follows:

- The Architect decides whether the completion of the Works is delayed beyond the Completion Date by a Relevant Event
- If so, the Architect shall fix an EOT on the basis of a fair and reasonable estimate of the delay beyond the Completion Date, by the Relevant Event

APPENDIX E UK LAW AND INDUSTRY GUIDANCE ON CONCURRENCY

THIS PAPER DOES NOT CONTAIN LEGAL ADVICE. THIS PAPER DOES NOT PROVIDE ADVICE OR GUIDANCE, IT IS A DISCUSSION PAPER, AND IS NOT INTENDED TO BE RELIED UPON.

Keating 5th edition

Keating on Building Contracts (whose 11th edition is referred to favourably later in this document) 5th edition was published in 1991.

During a general discussion of Liquidated Damages and the situation, ***"Where…the contractor has failed to complete on time",*** it is stated[191], *"…damages are not…in any event recoverable from a date earlier than that when the works could have been completed but for such delay".*

The full citation is muddling, but this seems to be saying that liquidated damages, should be assessed on a 'but for' basis against the Employer. This would accord with the general principles of the laws on damages, and was the generally accepted position at the time.

It seems odd however, that in discussing clause 25.3.1 of the JCT contract, Keating states at page 574, in regards to the architect's "*fair and reasonable*" estimate, "…*the period of extension…has to be the result of consideration of various factors which it is thought may include…(3) The effect of any causes of delay e.g. inadequate supervision, which are not (Relevant Events)…(4) The effect of concurrent causes of delay, whether within clause 25 or not, and whether one of them is an effective, dominant cause of delay*".

Keating cites no legal authority for this proposition[192].

The reason that the contention is odd, aside from the fact that it appears to conflict with the statement on page 222 (as quote further above), is that on a plain construction of the words of the contract, the Architect, when considering the period of extension, is considering the effect of a "Relevant Event". Having already decided that the Relevant Event has caused delay, the Architect is then required to make a fair and reasonable estimate of the delay "thereby", i.e. by the Relevant Event. The word "thereby" can only relate to "Relevant Event"[193] (as Keating acknowledges on page 575). Why then having already decided that the Relevant Event has caused delay, would the Architect consider the effect of other causes of delay?

[191] On page 222-223

[192] but includes a footnote to a section of the book which discusses the concept of "dominant cause", in relation to:

- claims for damages (liquidated damages are dealt with in a separate part of the book)
- claims by the Contractor for payment under the terms of the Contract

[193] The only possible alternative construction of the clause would be to say that the Architect is to form an opinion as to whether a notice issued under clause 25.2.1.1 has caused delay to completion, which is clearly nonsensical.

The standard Pre-Malmaison approach

The case of *Balfour Beatty Construction Ltd v Chestermount Properties* (1993) involved assessment of extensions of time in the JCT 80 Standard Building contract. With the shell and core Contractor already years late, the Employer instructed it to undertake fit out works whilst it was completing the shell and core.

The Contractor argued (in the alternative, its first argument having already failed) that the effect of the variation was to excuse it not only for the delay caused by the variation itself, but for all preceding delay up to that point, on the basis that on account of the timing of the variation, the project could not have been finished any earlier even if the Contractor had otherwise been in a position to finish as scheduled. The Contractor claimed an extension of time to cover all pre-existing delays. Justice Colman concluded that in regards to the JCT extension of time clause,

> "*it is right to examine the underlying contractual purpose of the completion date/extension of time/liquidated damages regime. At the foundation of this code is the obligation of the Contractor to complete the works within the contractual period terminating at the completion date and on failure to do so to pay liquidated charges for the period of time for which practical completion exceeds the completion date. But super-imposed on this regime is a system of allocation of risk. If events occur which are non-Contractor's risk events and those events cause the progress of the works to be delayed, in as much as such delay would otherwise cause the Contractor to become liable for liquidated damages or for more liquidated damages, the contract provides for the completion date to be…adjusted in order to reflect the period of delay so caused and thereby reduce pro tanto the amount of liquidated damages payable by the Contractor.* ***The underlying objective is to arrive at the aggregate period of time within which the contract works as ultimately defined ought to have been completed having regard to the incidence of non-Contractor's risk events and to calculate the excess time if any, over that period, which the Contractor took to complete the works. In essence, the architect is concerned to arrive at an aggregate period for completion of the contractual works, having regard to the occurrence of non-Contractor's risk events and to calculate the extent to which the completion of the works has exceeded that period."***

The periods applicable to Employer risk events - including the agreed period for the original scope of works - had to be assessed and aggregated, with that aggregate period then deducted from the actual performance period, pursuant to the LDs clause, to arrive at the overall total period of delay to the project to which Liquidated Damages might be applied, should the Employer require[194].

[194] It's also worth noting before moving on, that in the *Balfour Beatty v Chestermount* case, Justice Colman also considered a hypothetical situation in which the Contractor's overall period of culpable delay pushed the project into a period of exceptionally bad weather. The judge said that it would need to be considered further (him not having heard evidence on it) but that it seemed logical on the face of it, that the Contractor should not be entitled to the extension of time in those circumstances, because the weather event had only impacted the Works due to the existing delay caused by the Contractor. This principle was confirmed in a case in the

Balfour Beatty's argument failed, and it was only entitled to the net additional effect of the additional works, and was not excused the preceding period of its own delay.

However, what we need to note is that in Justice Colman's judgement, with regards to the calculation of extension of time, there's no mention of calculating the effect of non-Relevant Events, other than in the final calculation, once the extension of time calculation has been completed, which is what the contract states.

This is also what common sense would suggest. If there are other causes of delay then those delays will come out in the wash, in the date when the Contractor achieves Practical Completion. There is NO need to measure the effect of any particular event which is not a Relevant Event.

In his chapter titled, "*Concurrent and culpable delays*", Eggleston states in 1997[195], ***"****It is the relationship of extensions of time to claims for loss and expense or extra cost which causes most difficulties with concurrent delays****. If the only consideration was, is an extension due or not where there are concurrent delays****, disputes as in the Fairweather case[196] would not arise.* ***All that would matter would be proving the involvement of a relevant event.".***

It's important to note that when this was written, the concept of true concurrency did not exist. Egglestone is talking about parallel delays in the broad sense.

Simms 3rd edition (1998) appeared to consider that the Contractor's own progress, or lack thereof, was not even "fatal" to a loss and expense claim, stating,

> *"The Contractor's progress may already not be regular, due to factors within his control or which do not give him entitlement to claim. That is not fatal to his claim under this clause (loss and/or expense) although it will present severe evidential problems. Among other things, he will have to demonstrate what regular progress should have been and further prove that irrespective of his own failures in this respect, regular progress would have been affected by the matter specified."*

In relation to extensions of time it seemed clear cut,

> *"Where there are overlapping causes of delay…****the architect can not deprive the Contractor any reasonable extension for the relevant event, merely because there is an overlapping cause****".*

Simms 3rd edition[197] (page 85) refers to "*recent judicial opinion*" "…*that an architect should not take into account the contractor's own delays*". A footnote is given to *John Barker Construction Ltd v London Portman Hotel Ltd* 1996).

New South Wales Supreme Court (the approximate equivalent of the Court of Appeal), *Australian Development Corp Pty Ltd v White Constructions (ACT) Pty Ltd (2001)*

[195] Liquidated Damages and Extensions of Time In Construction Contracts, 2nd edition, Brian Eggleston 1997
[196] *Fairweather v London Borough of Wandsworth* (1987) case was about which of competing Relevant Events applied, and whether that affected entitlement to prolongation costs.
[197] Building Contract Claims, third edition, Powell-Smith & Sims, 1998

Malmaison

In the case of *Henry Boot Construction (UK) Ltd v Malmaison Hotel (Manchester) Ltd (1999)*, the Judge began by explaining that certain matters were NOT in dispute between the parties, including that both parties accepted the approach taken by Colman J in *Balfour Beatty v Chestermount Properties*.

The dispute which Justice Dyson was considering, related to the scope of an arbitrator's jurisdiction in relation to reviewing an Architect's assessment of entitlement to extension of time, and more specifically as follows:

> *"the respondent denies that the Works were delayed by the matters alleged by the claimant, and asserts that…the claimant's assessment of delay was based on a revised programme which ignored the true state of the Works at the date of issue… and the fact that "*the claimant's delay analysis does not take into account any culpable delay on its part or actual progress at the time of the events relied upon*".*
>
> *…The claimant submits that these are not matters that can be raised by way of defence to its claim for extensions of time…and are irrelevant and outside the scope of the Arbitrator's jurisdiction.*
> *The respondent argues that these are matters that can be raised as a true defence to the claims for extensions of time that are before the Arbitrator, so that they fall come within the scope of the arbitration."*

So the Contractor's argument – which Justice Dyson rejects – is that the Contractor's actual progress does not need to be considered, and entitlement can be assessed merely on an as planned impacted basis.

The words of Justice Dyson which have caused conjecture, are as follows:

> "*The positive defence* (open to the Employer) *is that* ***the true cause of the delay was other matters,*** *which were not Relevant Events, and for which the contractor was responsible*"
>
> *"****it is a question of fact in any case whether a relevant event has caused or is likely to cause delay to the works*** *beyond the completion date in the sense described by Colman J in the Balfour Beatty case",*
>
> *"****it is incorrect to say that****, as a matter of construction of clause 25,* ***when deciding whether a Relevant Event is likely to cause or has caused delay, the Architect may not consider the impact on progress and completion of other events****."*
>
> *"it's impossible to lay down hard and fast rules"*

The first point to make is that this is definitely NOT the same point as made in Keating 5th edition where it mentioned non-Relevant events. Keating was asserting that the Architect should consider non-relevant events when determining extent of the "*fair and reasonable"* extension to be made in respect of the delay which he has already determined has been caused by the Relevant Event. Justice Dyson, on the other hand, is saying that the Architect can consider the effects on progress of events which are not Relevant Events, when forming opinion under the first limb of clause 25.3, i.e. as to whether a Relevant Event did or did not cause delay.

An interpretation that has been given to the judgement is that Justice Dyson was suggesting that the contract requires the Architect to look at periods of delay, and allocate them between the parties. It's noted, that what the contract requires – on a contemporary basis – is for the Architect – where he/she has been notified of delays or likely delays in the progress of the Works - to decide whether a Relevant Event has delayed the project, and if so, make a fair and reasonable estimate. It doesn't seem clear that there is an additional step of identifying a period of delay and attributing the causes.

But in any case, this is arguably giving too prescriptive an interpretation to the point which the judge is making, in the context of his decision which is in regards to the fact that *"the claimant's delay analysis does not take into account any culpable delay on its part or actual progress at the time of the events relied upon".*

A reasonable alternative interpretation of Justice Dyson's comments (which it is submitted is also the meaning which Justice Seymour intended to attribute to them in the next case), is that they merely re-iterate that the Contractor is not entitled to an extension of time for delays caused by matters which are not Relevant Events, and clarifies – as seems so obvious today - that the Relevant Event needs to delay the actual progress of the Works, not the planned progress.

Royal Brompton

The baton was picked up by Justice Seymour in the case of *Royal Brompton Hospital NHS Trust v Frederick A Hammond & Others* (2000) which involved a professional negligence claim in which it was asserted that the Architect had been negligent in awarding too much extension of time. Justice Seymour held there had been no negligence.

Justice Seymour cited a passage from Justice Dyson's judgement, in which Justice Dyson stated that "*it is agreed*" (by the parties and seemingly by the Judge),

> *"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 a 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. He cannot refuse to do so on the grounds that the delay would have occurred in any event by reason of the shortage of labour."*

Justice Seymour then said in a response to an assertion made by the defendant Architect to situations in which "*relevant and non-relevant events operate concurrently*" (emphasis added),

> *"…it is, I think, necessary to be clear what one means by events operating concurrently."*

(it relates to) *"a situation in which, as it were, the works are proceeding in a regular fashion and on programme, when two things happen, either of which had it happened on its own would have caused delay…In such circumstances there is real concurrency of causes of delay".*

*"It does **not** mean, in my judgement, work already being delayed, let it be supposed, because the contractor has had difficultly in obtaining sufficient labour, an event occurs which is a Relevant Event and which, had the Contractor not been delayed, would have caused him to be delayed, but which in fact, by reason of the existing delay, made no difference…The Relevant Event simply has no effect on the completion date."*

Some commentators have attributed to Justice Seymour's words a meaning that there is no EOT entitlement when a Relevant Event arises after an ongoing Contractor delay event has arisen. This is sometimes referred to as the 'first in time' approach.

And this has given further license to the intensive involvement of delay analysts looking for Contractor delay 'events'. It's particularly problematic, as most delay events don't cause a total suspension, but a drop in productivity, so this approach can be interpreted as a charter to search for drops in Contractor productivity, which makes the delay exercise vastly more complicated, than a mere assessment in isolation of the effects beyond the Completion Date, of the Relevant Event.

It seems fair to say though that notwithstanding these complications, the delay industry has pushed this interpretation hard[198].

This report suggest though, the attributed meaning is not what Justice Seymour intended. The following grounds can be provided for this conclusion:

1. Justice Seymour was not a computer programmer, and didn't visualise a construction project as a real life model of a bar chart
2. When referring to Justice Dyson's decision, Justice Seymour makes no reference to the true cause passage, but does expressly construe Justice Dyson's findings in accordance with Justice Colman's (as Justice Dyson himself did).
3. The distinction which Justice Seymour makes is that there is not concurrency (i.e. there is no entitlement) in a situation where *"by reason of the existing delay"* the Relevant Event *"made no difference".* So on the interpretation given to his words by the disputes industry, if let's say the site was closed for a week due to exceptional weather conditions, then there would be no extension of time if that week fell in the middle of a 2 week absence of the Contractor due to not having labour. This is on the basis that in this case, the weather *"**made no difference**".* But on the same basis the weather also *"made no difference"* in the situation for which Justice Seymour states that an extension of time *should* be given, i.e. . "*either of which had it happened on its own would have caused delay".* So it doesn't seem logically sound that this was his point.

[198] Lord Osborne reached the same conclusion as to Justice Seymour's intention in a Scottish case in 2010, however he rejected the approach saying that has no logic and is not in accordance with the JCT contract.

4. Justice Seymour states that there IS entitlement where in connection with competing events, ""*either of which had it happened on its own would have caused delay".* But this has the **opposite** effect of a first in time (or critical path) approach.
5. Justice Seymour distinguishes the situation in which there should be EOT entitlement from a situation where Works "*are proceeding in a regular fashion and on programme when two things happen*". But whether the works are "***on programme***" or not when a delay occurs, is irrelevant when considering whether an extension of time should be provided in regards to any new delay. It is universally accepted that a Contractor may be entitled to extensions of time whether it is running on programme or whether it is behind programme when Relevant Events occur (see Justice Colman). Again this suggests that his point has been misunderstood.
6. This interpretation would also not be supported by other parts of the judgement which is also usually completely ignored by commentators (as is the fact that Justice Seymour found that the Architect had not been negligent).
    a. Justice Seymour explained , *"I was urged to conclude that WGI must have been negligent in awarding extensions of time totalling 35 weeks if there were only 13 weeks time lost. The validity of the points depends, in my judgement, upon the assumption that it was either not open to (the Contractor) to seek to improve upon the Target Programme, or that, as a practical matter, it was impossible…to do so….I do not consider that assumption to be a proper one to make*". The consequence of this is that Justice Seymour acknowledged that a Contractor was entitled to an extension of time, even if it accelerated and thereby wiped out the delay theoretically caused by the Employer. If the Contractor was entitled to accelerate through Employer delay (and still be entitled to an extension of time), it seems that it must be entitled to accelerate to make up its own delay. And in that case, the (Contractor) delay can not really be said to have occurred at all until the completion date has passed, and when its opportunity not to complete later than contractually required has expired, so how can a period of Contractor delay be compared to the timing of a period of Employer delay?
    b. Furthermore, Justice Seymour added ,"*an extension of time could be justified if a Contractor was prevented from recovering lost time by the occurrence of a Relevant Event*". It seems clear from this statement, that the Judge was of the view that the Relevant Event can prevent the Contractor from accelerating through its own 'delay'.

It's noted that Justice Seymour considered the appropriate consideration was whether at the time of the Employer delay event it was "impossible" for the Contractor to have made up lost time. On this basis, culpable delay would rarely be included in a programme before it's impacted for an Employer event at all.

On the basis of each of these points, but in particular point 5, it is submitted that Justice Seymour is referring to a situation not where an Employer event falls within a period of culpable delay, but to a situation in which the Employer is, for example, late in supplying the door frame, but the Contractor is even later and has not yet built the blockwork, and is concluding that the calculation of the delay caused by the late door frames should only start at the point where the progress of the blockwork was sufficient to enable progress on the doors, because until then the delay is only

theoretical (against the planned programme) delay and not actual. The "*on programme*" reference in particular, makes sense in this context.

It seems perfectly understandable to conclude that such a situation is not a concurrent delay for the one event is not an (actual) delay at all because the activity is not yet in a status where it can be commenced, and in fact is saying no more than Justice Colman says in *Chestermount*, and arguably than Justice Dyson says in *Malmaison*.

So what he's saying is that:

- where the blockwork is on pace, but the Employer supplied door frames haven't turned up AND (let's say) the Contractor's only carpenter's broken his arm, then there is concurrent delay.
- If the Employer supplied door frames haven't turned up, but the Contractor hasn't built the blockwork yet, then it isn't concurrent delay, it isn't delay at all.

But in the first situation where the blockwork is on pace, but then the door frames can't go in for 2 competing reasons, it doesn't matter a jot whether the carpenter broke his arm at the same moment that the door frame supplier postponed its delivery, or before it or after it. The point is, that when the activity was actually ready to be undertaken, neither the Employer or the Contractor were ready. The works are proceeding on programme and in a regular fashion when suddenly they can't continue, due to an Employer risk event and a Contractor risk event. It is suggested, that it can be concluded with high confidence, that Justice Seymour is **not** intending the implications which have been attributed by some commentators.

Before we move on, it's just worth mentioning that within the judgement there are transcripts of project documents, which were written in the late 1980s and which refer to the critical path. It should be noted though, that these relate to the contractor's PLANNING of the works, not to how it anticipates extension of time entitlement to be assessed. Critical path analysis was considered at the time to be a planning tool. That's what it was developed for and that's what its purpose was.

Motherwell Bridge

The next development was the case of *Motherwell Bridge Construction v Micafil Vakuumtechnik*[199] (January 2002) which concerned the interpretation of FIDIC contracts. In relation to the timing of Employer delays and other events, Justice Toulmin held, ***"other delays caused by (the Contractor) are not relevant…these are not relevant events, since this court is concerned with considering extensions of time within which the contract must be completed.…an extension of time for completion of the works may be granted in respect of a relevant event occurring during the period of culpable delay…The completion date is…to be adjusted by the total number of working days starting from the date of possession within which the Contractor ought fairly and reasonably to have completed the works."***

[199] (2002) CILL 191

This seems to be essentially the same finding as Justice Colman. There's no mention of *Malmaison* or *Royal Brompton* providing for anything different. **This is another of the cases which the delay and disputes industries appear to have forgotten.**

The judge also held that the Contractor was entitled to an extension of time notwithstanding that no actual delay to completion was caused due to acceleration by the Contractor. This is the same as of Justice Seymour's findings in *Royal Brompton* (point 6b in the analysis of that case above).

Society of Construction Concurrent Delay paper

In February 2002, the Society of Construction Law (Hong Kong), published a paper by John Marrin QC on the topic of "concurrent delay". The paper in some respects appears to be misconceived and misleading. One point of view would suggest it is mere mischief making. Nevertheless, it has served as a basis for some legal commentaries and even of a finding of the Court of Appeal in a judgement of the Society of Construction Law's President, Lord Justice Coulson.

The paper's arguments appear to be predicated on the notion that if a Contractor gets an extension of time, then it is automatically entitled to prolongation costs. Pages of the paper are devoted to solving this "*obverse problem*". However as construction professionals generally know, extension of time and prolongation costs are ordinarily dealt with separately under separate clauses so this is not any kind of problem, obverse or otherwise.

Mr Marrin says, "*on behalf of Contractors, it is occasionally suggested that the correct approach…is to apply the 'but for' test of causation…There do not appear to be any reported cases where it is suggested that the 'but for' test could be applied to the determination of contractual claims*." He then cites a case in which a but for argument was rejected. But the case cited by Mr Marrin is from the accountancy industry which appears from his description of the case to have nothing at all to do with extension of time or even delay. He also ignores the fact that there are cases in which something similar to the 'but for' test has been applied in everything but name, including construction cases dealing with extensions of time (including one such decision two months before the paper was delivered).

The paper refers to competing causes of "*approximately equal causative potency*" as being "*effective causes",* but in other cases, "*the minor cause is treated as if it were not causative at all*". This is the dominant cause approach. Mr Marrin states, "*Since at least the 1980s, it has commonly been suggested that the correct approach to the matter of causation in determining Contractors' claims is to apply what is called the 'dominant cause' approach*.".

Again Mr Marrin does not provide any evidence of his contention. He cites Keating 5th edition (published not in the 1980s but in 1991), but neglects to mention that the extract which he cites is from a section of chapter 8 of the book which deals with contractor cost claims[200], and that there is not a single mention of extensions of time or liquidated damages in the section referenced. The example cited by Mr Marrin is

[200] Chapter 9 (**not** referred to by Mr Marrin) is titled "*The Time for completion and liquidated damages*".

stated in the book as relating to a situation, "*where a contractor **claims payment** under the contract, e.g. for delay*".

Mr Marrin states, "*it is not to be thought that the* Malmaison *approach is new. Indeed, in the 1970s, few would have contended for any other approach. It was, for example, the approach adopted by the successful Contractors in the* Fairweather *case.*". Again Mr Marrin appears to be mistaken. The *Fairweather* case[201] was about which Relevant Event applied, and whether that affected entitlement to prolongation costs. It was not about entitlement to extension of time, which had already been granted. The Contractor in *Fairweather* did not need a "*Malmaison*" approach to succeed in its extension of time claim, because the extension of time claim was not in dispute.

London Borough of Lambeth

The next case is *Balfour Beatty Construction Ltd v The Mayor and Burgess of the London Borough of Lambeth (2002)[202],* in which the judge was Justice Lloyd, former President of the Society of Construction Law. On the concurrency point he stated, *"Some means has also to be established for demonstrating the effect of **concurrent or parallel delays** or other matters **for which the employer will not be responsible** under the contract."*

He gave no reasoning for this point, and made no reference to authority, legal or otherwise. There has never (yet at least) been another judicial authority for disregarding all "parallel" Employer delays, and it is noted that this was a throwaway comment, made in the course of something of a diatribe by the Society of Construction Law's former President, aimed towards the adjudicator and the adjudication process in general.

The decision could in one sense be seen as having paved the way for the Society of Construction Law's Protocol later that year, which at the time was undergoing consultation with the construction industry.

Hammond 2002

In October 2002, Justice Lloyd presided over another of the cases between Royal Brompton and Hammond and others[203]. It is not widely reported, but contrary to his position in the Lambeth case 6 months earlier, he stated that, "*the absence of* (Contractor) *resources prior to 14 August* (the date on which it received the drawings) *is in my judgment of no consequence" (para 124)*. This seems to suggest that Justice Lloyd did not take a first in time approach, and that in this case he considered that Contractor delay did not affect entitlement to extension of time.

JCT 05 Building Contract

It is noted, that the **2005 version of the Standard Building Contract** included 2 changes to the delay mechanisms[204] from the 1980/1998 versions.

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[201] H.Fairweather&Co v London Borough of Wandsworth (1987)
[202] [2002] EWHC 597 (TCC)
[203] [2002] EWHC 2037 (TCC)
[204] Key provisions of the 1980 clause are included in Appendix D

- In the clause titled, "*Notice by Contractor of delay to progress*" (now clause 2.27) 2.27.2 now required Contractor to notify particulars and expected effects **of all mztters notified pursuant to clause 2.27.1**. In previous versions of the contract, particulars only had to be given of **Relevant Events**. In this version of the contract and subsequent versions of the contract, the contract could reasonably be interpreted as recognising the concept of Contractor delay events.
- In the clause titled "*Fixing Completion Date*" (now clause 2.28), the words, "*save where these Conditions expressly provide otherwise*"., are inserted immediately before the words, "*The Architect/Contract Administrator shall…give an extension of time by fixing such later date as the Completion Date as he then estimates to be fair and reasonable*",

Both of these new provisions have remained in subsequent versions of the contract.

It is submitted that the intention of the change to 2.28, was to oust conjecture of the kind which had been introduced by the *Malmaison* case, the *Lambeth* case, and the Society of Construction Law and other commentators. It is submitted that the (primary) intention of the change in notification requirements, is with regards to claims for loss and/or expense. The change in 2.28, however, went completely ignored, and much like the chain of cases which provide that the Contractor is entitled to a reasonable period based on an aggregate of the Employer risk events, is never cited.

Keating 8th edition

Keating on Construction Contracts, now in its 8th edition, published in 2006 (and now with a new editor), now focused on a dominant cause approach, stating,

> *"It now appears to be accepted that a Contractor is entitled to extension of time notwithstanding the matter relied upon by the Contractor not being the dominant cause of delay, provided only that it has equal 'causative potency' with all other matters causing delay"*
> *"The rationale for such an approach is that where the parties have expressly provided in their contract for an extension of time caused by certain events, the parties must be taken to have contemplated that there could be more than one effective cause of delay (one of which would not qualify for an extension of time) but nevertheless by their express words agreed that in such circumstances the Contractor is entitled to an extension of time for an effective cause of delay falling within the relevant contractual position"*

A footnote is provided referring to Justice Dyson's decision in *Henry Boot Construction v Malmaison Hotel Manchester* (1999).
The following points are noted:

- This is not how Justice Seymour and other judges had interpreted Malmaison (although it is a fair possible interpretation).
- It doesn't appear to have been suggested in English legal authorities that the Contractor would not or may not be entitled to an extension of time if the

matter relied upon by the Contractor was not the dominant cause of delay, as implied.

- None of the judgments make reference to a cause having to be of "equal causative potency'". Equal causative potency wasn't referred to in the decision of *Henry Boot Construction v Malmaison Hotel Manchester* as contended.
- The "rationale" given is not referenced in the judgments, including *Malmaison*.
- Seemingly no judgement, and not Malmaison, referred to "*effective cause*".

Steria v Sigma

Steria Ltd v Sigma Wireless Communications Ltd (2007)[205]*,* which was an information technology case, cited Keating and purported to apply the dominant cause principle referred to therein. However, the Judge applied it to the facts which did not include any kind of concurrent delay at all. It's clear from a review of the facts of this case that if Sigma did cause any delay, then it was sequential delay.

The judge has either found that the sub-Contractor is entitled to a full extension of time notwithstanding that the Employer delay did not account for the full period of delay (on account of the Employer's period of delay being the dominant period of total delay) OR that the sub-Contractor is entitled to a full extension of time because it did not cause any delay at all, and the delay caused by the Employer was therefore the dominant period of delay. Either way, this is nothing to do with the assessment of incremental periods of delay (as a construction project is).

De Beers v Atos Origin

The pre-Malmaison position was re-iterated in *De Beers UK Ltd (formerly Diamond Trading Co Ltd) v Atos Origin IT Services UK Ltd* (2010)[206]. The judge in this case was Justice Edwards-Stuart, who 3 years later would take charge of the Technology and Construction Court. The case related directly to the i.t. services industry but in the extract below the judge commented on his understanding of how the causation issue was addressed in relation to extension of time in the construction industry. In his case he determined that,*" **The general rule in construction and engineering cases is that**…where delay is caused by the Employer not only must the Contractor complete within a reasonable time but also **the Contractor must have a reasonable time within which to complete**. It therefore does not matter if the Contractor would have been unable to complete by the contractual completion date if there had been no breaches of contract by the Employer (or other events which entitled the Contractor to an extension of time), because **he is entitled to have the time within which to complete which the contract allows or which the Employer's conduct has made reasonably necessary**.".* Another of the 'lost judgements'.

[205] [2008] BLR 79 TCC
[206] [2010] EWHC 3276 (TCC)

City Inn

In the Scottish case of *City Inn v Shepherd (2010)*[207], heard in the Inner House (the approximate equivalent of the old Privy Council in Scottish law), Lord Osborne held,

> "*(with) concurrent causes…the focus of attention has moved, rightly in my opinion, from the events themselves and their points and durations in time to their consequences upon the completion of the works*."
>
> *"For that reason, discussion of whether or not there is true concurrency, in my opinion, does not assist in the essential process to be followed under clause 25."*

He however went on, *"if a **dominant cause** can be identified as the cause of some particular delay in the completion of the works, effect will be given to that by leaving out of account any cause or causes which are not material. Depending on whether or not the dominant cause is a relevant event, the claim for extension of time will or will not succeed."…"**where** a situation exists in which two causes are operative, one being a relevant event and the other some event for which the contractor is to be taken to be responsible, and **neither of which could be described as the dominant cause…it will be open to the decision-maker**, whether the architect, or other tribunal, approaching the issue in a fair and reasonable way, **to apportion the delay** in the completion of the works occasioned thereby as between the relevant event and the other event."*

It's noted that a full extension of time was awarded, on a common sense basis.

Lord Carloway gave a dissenting judgement, restating the traditional approach (or by an alternative construction, taking an as planned impacted approach):

> "…*the delay caused by the Contractor…is irrelevant so far as the contractual exercise in concerned. That exercise does not involve an analysis of competing causes. It involves a prediction of the Completion Date taking into account that originally stated in the contract and adding the extra time which a Relevant Event would have instructed, all other things being equal*"
>
> ***"**This provision is designed to allow the contractor sufficient time to complete the Works, having regard to matters which are not his fault (i.e. Relevant Events)….It proceeds, to a large extent, upon a hypothetical assumption that the contract has proceeded, and will proceed, without contractor default. It involves an assessment, on that assumption, of the delay which would have been caused to the Completion Date purely as a result of the Relevant Event."*
>
> *"In the oft quoted context of bad weather…It is of no moment that there was a contractor default before, during or after the weather conditions."*
> ***"If a Relevant Event occurs (no matter when), the fact that the Works would have been delayed, in any event, because of a contractor default remains irrelevant."***

[207] [2010] ScotCS CSIH 68

Adyard

The facts of *Adyard Abu Dhabi v SD Marine Services* (2011)[208], are essentially that Adyard was building, amongst other things, 2 ships/hulls for SDMS. **If they were not ready for sea trials "*by the contractually agreed dates*" then SDMS could rescind the contract and require reimbursement of all sums paid to Adyard.**

It's worth noting that every bit of extension of time to a Contractor on a delayed construction project is valuable, because LDs are applied in increments. In this shipping case it was all or nothing. If Adyard could not get an extension of the sea trial date all the way up to actual completion, then SDMS could rescind.

There are several peculiarities about this judgement. One example is the judge's apparent explanation of how extension of time clauses work. He said, (emphasis added) (para 259): " *If, for example, a two day variation was instructed the day before the sea trials date, and was a variation of a type which would need to be completed before sea trials, then, if there was an extension of time clause Adyard would be entitled to a one day extension of time*". **It seems quite clear that the extension of time entitlement in this situation would be 2 days, not 1 day.**

In fact it's difficult to see that Adyard was arguing on an extension of time basis at all, because Justice Hamblen asserts that Adyard's contention was entitlement to extension of time of, "*at least 7 days in respect of Hull 10 and one day in respect of Hull 11*". Yet the total delay to the project was several months, so such extensions would have been useless to Adyard, as SDMS could have rescind even if the extension of time was awarded. It seems more likely that Adyard was arguing solely on the basis of the prevention principle (in fact Justice Hamblen stated that this was the case during the trial), and Justice Hamblen has gone out of his way to talk about concurrent delay in extension of time claims on "JCT and similar" contracts.

This leads into another peculiarity, which is that at paras 285 and 286, the judge concluded that if the contract works had not been "*defined by reference to…programmes*" then he would have allowed an argument by Adyard, to the effect that Employer delays don't have to be on the critical path to the date of completion. That's not peculiar at all, and makes sense. But the judge then goes on to refer to, "*the JCT form and similar contracts*" (the implication being that such contracts are those which are defined by programmes - this report, for what that's worth, reaches an opposite conclusion (see Section 23) based not least on a judgement which cites Court of Appeal authority), and continued with the analysis on that basis. The peculiarities are twofold. On the one hand, Adyard wasn't on a JCT contract, it was on a bespoke shipbuilding contract with a start and end date only, so it must have been quite bemused by the direction the judgement took at this point. On the other hand, and because of the preceding point, it's not even apparent that Justice Hamblen had read a JCT contract.

[208] [2011] EWHC 848 (Comm)

What the judge said on the concurrency authorities

- (para 277) "*A useful working definition of concurrent delay in this context is "a period of project overrun which is caused by two or more effective causes of delay which are of approximately equal causative potency*"
- (para 279) (After citing Justice Seymour's famous words), "*This makes it clear that there is only concurrency if both events in fact cause delay to the progress of the works and the delaying effect of the two events is felt at the same time*."
- (para 286) "*the English law authorities in relation to extensions of time under the JCT form and similar contracts are clear that it must be established that the relevant event is at least a concurrent cause of actual delay to the progress of the works*."

An interpretation which has been given to the judgement

Some commentators have concluded from the judgement, in particular from the words, "*there is only concurrency if both events in fact cause delay to the progress of the works and the delaying effect of the two events is felt at the same time",* that Justice Hamblen has provided that in a situation in which say for example no labour is available on days 10-20 and on days 16-19 the site is flooded out by exceptionally inclement weather, then there's no entitlement to EOT, i.e. a first in time approach to concurrency.

Such an issue however doesn't even seem to be in Justice Hamblen's contemplation. For one thing, the review of the facts is not in anything like enough detail to be able to establish such a scenario has occurred.

Whilst the judge referred to evidence relating to graphics contained within the appendices of the 1st SCL Protocol, and also to a hypothetical example of an Employer being late in supplying paint but where it was still supplied before the wall to which it was to be applied had been built, no analysis of the facts of the actual case in front of the judge appears to be undertaken by anyone.

Justice Hamblen reviewed some internal Adyard documents which had summarised at very high level the – obviously substantial - domestic problem which Adyard was having on the project. The documents simply listed out in broad terms, the types of domestic issues Adyard was or had been (no distinction was made) having. There was no reference to any dates or such like, and no cause and effect at all. The judge concludes that the reports (para 212), "*accurately summarise the causes of delay*" on the project, and later adds on the basis of this conclusion that (para 294), "*the project was already in irretrievable critical delay well before"* the potential impact of the matter which Adyard alleged the Employer to be responsible for.

The only other source of information on delays beyond the high level documents previously mentioned, is that a naval architect expert appointed by Adyard (para 293),"*agreed in cross examination that there was no actual delay, whether viewed prospectively or retrospectively, caused by any of the design items*.". Justice Hamblen said that the conclusion that there was no Employer delay (para 294), "*was in accordance with the common sense view of what was actually happening on site."*

and that (para 296) "*In these circumstances it is not necessary to address in any detail all the various prospective delay scenarios considered by the experts*".

On 31 March 2009, Mr Walker (on behalf of SDMS) *produced a report on Adyard's progress which concluded that the project was delayed by at least 6 months. Mr Walker recorded under the heading* "Lloyds and MCA" *that* "One area of concern was the time taken to review Intact and Damage Stability. This was due to incomplete data being supplied by Adyard to the MCA." (para 153)

There are pages of facts in the judgement, but no cause and effect analysis.

It's therefore seems impossible that the judge could have formed an opinion on a first in time concurrency approach (a 2nd reason for this conclusion is set out at the end of the analysis of this case) because he did not review the facts of the case in anything like the detail required to have done so.

This report considers that two alternative interpretations can be made of the judgement, as below.

1st realistic interpretation

In the passage immediately before the judge reviews the concurrency authorities, he says that, by Adyard's argument (para 264), *"there is no need to prove the event or act causes any actual delay to the progress of the works".*

This comment is made in the context of Adyard's argument that extension of time should be given (para 260-262), *"regardless of whether the variation would have any impact on the actual progress of the works"*

By Adyard's argument, he says,

. *"One looks only at the event/act in question and how it relates to the contractual completion date."*

" So, if the project was already in six months irretrievable delay it would make no difference to the causation analysis. Adyard would still get its extension of time…"

"(Counsel for the owner) *gave a helpful example of the extreme consequences in practical terms of this approach:* "Assuming (as is in fact appropriate in the present case) that the Contractor is many months in delay by reason of its own default. The Employer decides a week before the (original unextended) contract completion date that he wishes a wall to be painted blue instead of the contractually specified red. At the time of the instruction, because of the Contractor's delays, the wall is not even built yet. The paint will take 5 weeks to procure, but will still arrive before the completion of the wall and the date upon which the Contractor would require the paint in line with his delayed progress.""

It's specifically in the above context that he reviews the concurrency authorities.

The context potentially indicates that Justice Hamblen did not have the 'first in time' meaning - which commentators have attributed to Justice Seymour's words - in mind, but the meaning which this report attributes further above to Justice Seymour's words, namely the narrower point that the Employer event has to be a factor in works which are ongoing at the time of the Employer event.

The judge's reference to existing delay is also worth noting. He lampoons Adyard's argument on the basis that it would mean that it could still get an extension of time even if it was 6 months behind programme when the Employer event occurred. But (certainly in the construction industry, which the judge draws equivalences with), a Contractor *can* become entitled to an extension of time, irrespective of whether it is 6 months in delay or not. If the Employer delay causes further delay then to that which already existed, then there is an entitlement to extension of time, irrespective of whether the existing culpable delay is irretrievable. Nobody in the industry even questions this.

This could possibly support the interpretation given above, i.e., that the judge is mocking the proposition that the paint could arrive say 5 months prior to the wall being ready for its application, and still there would be entitlement. It could also support the alternative interpretation given below.

2nd realistic interpretation

This report considers that the judge may be contemplating a derogation from the critical path principle. This is suggested initially by the fact that Justice Hamblen concludes that the argument does not succeed because, "*I have already found, the project was already in irretrievable critical delay well before June 2009*".

That conclusion incidentally, is *another* peculiarity of the judgement, because Justice Hamblen appears to assume that the alleged variation[209] would take effect when SDMS confirmed what it was that they wanted (which was around 19 months into the project, in June 2009) rather than from when Adyard had been waiting for the information such that it could undertake or complete the design, since shortly after the job commenced. But this point is not important for the current purposes.

As mentioned above, in para 279 (after citing Justice Seymour's famous words), Hamblen says, "*This makes it clear that there is only concurrency if both events in fact cause delay to the progress of the works and the delaying effect of the two events is felt at the same time*."

Almost immediately before this he refers to Justice Colman's judgement saying that he made it clear that the Employer delay event has to, "*be assessed by reference to the progress of the works (to the then completion date)",* but then says (para 272), *"Colman J then went on to make it clear that delay (to the completion date) must be therefore assessed by reference to the progress of the works (to the then-projected completion date)".*

[209] Justice Hamblen found – again on very confusing grounds – that the matter was not a variation anyway, so the discussion was in the alternative (obiter)

Justice Hamblen provides no direct citation in support of this point, but refers to some page numbers, and no other judge had appeared to have given the same interpretation. Regardless, this suggests that what Justice Hamblen was considering when he reviewed the concurrency authorities, was the wider issue of criticality.

Further, the judge repeats that, "Adyard *submitted that the essential point, whether analysed as a matter of "concurrency" or "prevention", is that the effect of the Buyer's risk event has to be measured against the contractual completion date*". This strongly suggests an argument by Adyard (real or otherwise) that a critical path approach is invalid.

He says at para 285, "*It submitted that in cases such as the present where the Builder's obligations to progress the works are defined by reference to particular contractual milestones, rather than any programmes, that this approach should be followed*", but that, "*the English law authorities in relation to extensions of time under the JCT form and similar contracts are clear that it must be established that the relevant event is at least a concurrent cause of actual delay to the progress of the works*."

Justice Hamblen appears to be talking about a critical path argument, and conflating it with a concurrency argument. His definition of concurrent delay is intending to say that - perhaps subject to Justice Hamblen's interpretation of a true concurrency exception - an Employer delay event needs to be on the critical path or at least on a path which is jointly critical.

This seems to be confirmed in paragraph 293 where he says that Adyard, *"agreed in cross examination that there was no actual delay, whether viewed prospectively or retrospectively, caused by any of the design items*.", and again in paragraph 292 where he says that Adyard's argument was based on a section of the SCL Protocol which states that the Employer event needs to cause delay to the Completion Date.

Justice Hamblen explains (paragraph 291) that Adyard tries to rely on Figure 9 of Appendix D of the SCL Protocol in support of a contention that sub-critical delay can create entitlement if it pushes planned completion beyond the Completion Date (if it exhausts total float, as defined in Section 5 of this report).

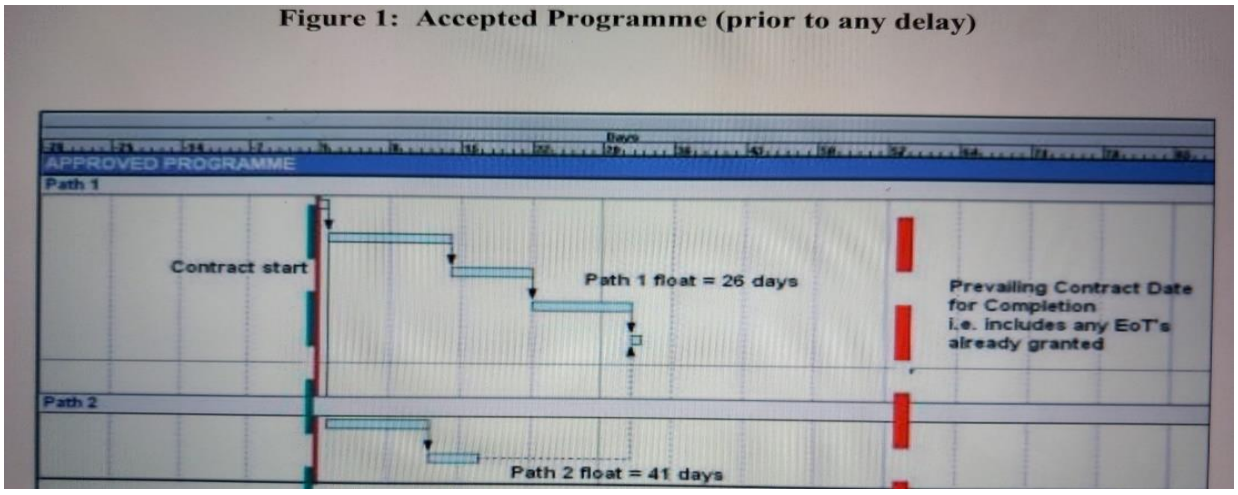
By way of explanation to the readers of this report, Appendix D of the (1st edition of the) SCL Protocol, comprises 9 'figures', with each figure comprising of a simple bar chart exercise demonstrating a principle in relation to critical path analysis[210]. Figure 9 is showing a project with 2 programming paths, where the Contractor is in culpable delay on path 1 which has pushed it beyond the Completion Date, and the Contractor has produced a recovery programme in which it tries to mitigate or accelerate through the delays, but will be unable to fully recover the delay and will finish late. It then shows an Employer risk event occurring on path 2, which creates a delay to the completion of activities on path 2, which pushes path 2 out beyond the

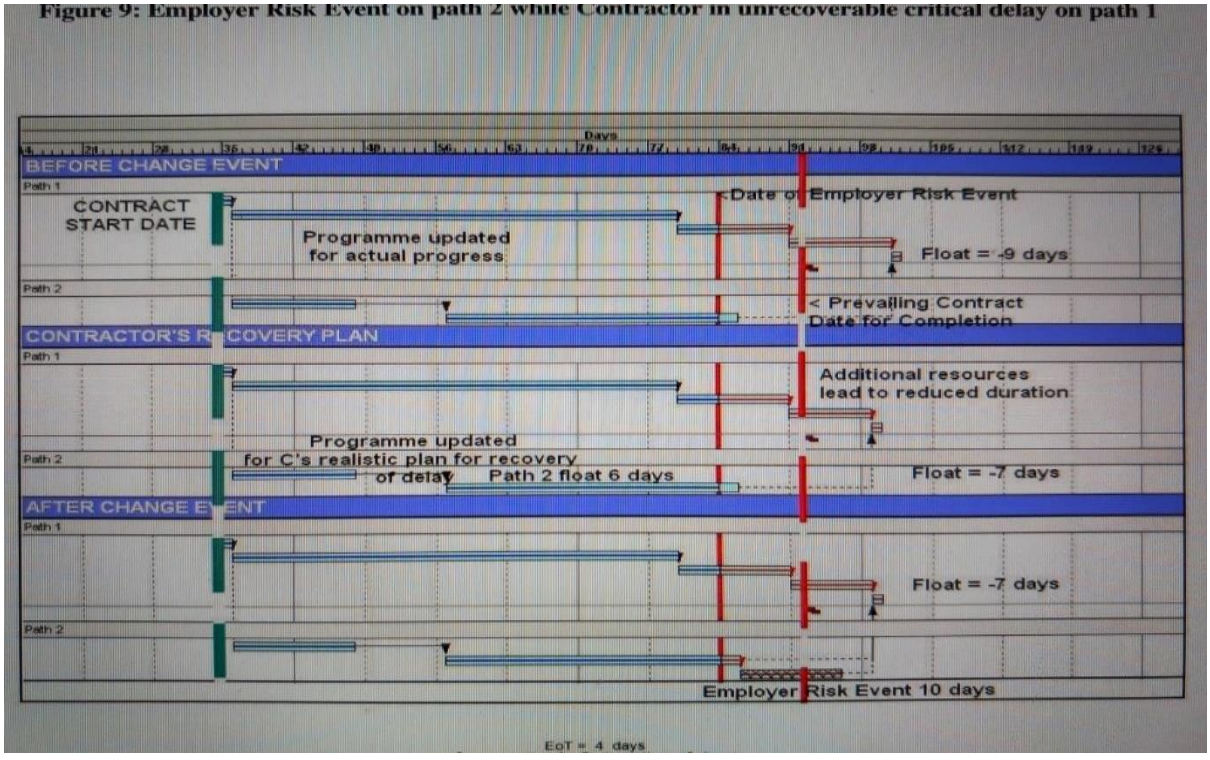
[210] For example, figure 2 shows a situation in which the Employer delay event delays the completion of the works, but not beyond the contractual completion date due to total float in the programme, and concludes that in this situation there is 0 days EOT due. In figure 3, the programme still has float when the Employer delay event happens, but this time the Employer delay event pushes completion 1 day beyond the Completion Date, and so an annotation confirms that the Contractor is entitled to 1 day EOT.

Completion Date but which is sub-critical to the activities on path 1 and therefore not driving overall completion of the works.

Critical path theory (by the SCL's definition of it) would dictate that in that situation there is no EOT entitlement. Yet the annotation in Appendix D figure 9 states 4 days EOT entitlement, which appears to be intended to represent the extent to which path 2 is pushed beyond the Completion Date. This is apparently what Adyard tried to rely on. *Delay and Disruption in Construction Contracts 5th edition* (Pickavance, Burr) interpreted this as representing an opinion of the SCL at the time (2002) that in some circumstances EOT should be awarded notwithstanding the Employer delay being sub-critical. They state that there is no judicial authority for this approach (but it's similar to the approach set out by Justice Colman in *Balfour Beatty v Chestermount*).

Figures 1 and 9 from Appendix D of the SCL's 2002 Protocol are pasted below.

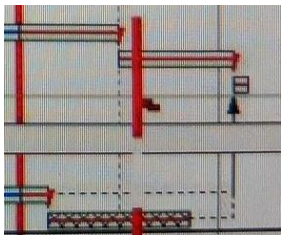




Commenting on figure 9, Justice Hamblen says, "***I find* (figure 9)*…can be read as showing that the introduction of the employer's event on path 2 makes that path critical and causative of concurrent delay in which case again it puts forward the orthodox position."***

Let's go through that.

With regards to, ***"I find* (figure 9)*…can be read as showing that the introduction of the employer's event on path 2 makes that path critical"***



There are 2 possibilities here:

1. The judge has interpreted the vertical part of the float arrow, which is depicted next to the Employer delayed activity, as being a part of the activity bar, with the actual duration thereby depicted as going up to the float line (arguably quite understandable for someone not accustomed to reading programmes).
2. The judge regarded the activity as critical on account of the fact that it extended beyond the Completion Date, and irrespective of the fact that there was a longer path on account of contractor delay (a logically sensible approach).

Even if 2 is correct, then the following conclusions would still apply, however option 2 seems to be precisely what the Judge is arguing against, so it seems that his conclusion is per 1 above.

With regards to his statement, "***makes that path…causative of concurrent delay in which case again it puts forward the orthodox position***" . The Judge has concluded that the resulting situation of a delay event making a path jointly critical with another critical paths[211], is one of concurrent delay.

But in this situation (or the alternative situation set out in footnote 114 below), **the Contractor delay has occurred before the Employer event** (see full image of figure 9 above).

In fact, the delay events and their effects appear to be entirely sequential with the impact on the programme of the Contractor event ceasing before the Employer event had happened (compare figure 1 and 9 showing the delayed activity 1 on Path 1 being complete before the Employer delay).

But he has called it concurrent delay. His own definition of concurrency ("*there is only concurrency if both events in fact cause delay to the progress of the works and the delaying effect of the two events is felt at the same time*"), would simply not apply in the normal sense of that concept, or in the sense of the judges whose authorities Justice Hamblen has cited, to the factual situation that he has identified as being an example of concurrent delay.

[211] OR (much less likely) a situation of paths which both exceed the contract completion date

This suggests that the judge's decision is nothing to do with concurrent delay in the sense of it being a distinct principle, it's about the broad principle that in order to create entitlement, Relevant Events need to cause critical delay, albeit with a potential apparent derogation from that principle (what Justice Hamblen has interpreted as true concurrency) to the effect that if a Relevant Event would have caused exactly the same overall delay to completion as an existing culpable delay, then there is or may be an entitlement to extension of time in respect of the duration of the delay caused by that event.

This report leans towards this interpretation, which Justice Hamblen has clearly gone a considerable way out of his way (and out of the way of the facts of the case and other material before him) to make.

But either way, and regardless of whether figure 9 shows entirely sequential delays, the fact that the judge considers (as he does in figure 9) that a situation where a Contractor event has arisen substantially before the Employer event constitutes "concurrent delay", seems to prove that whichever of the 2 interpretations set out above is correct, he was not taking a first in time approach.

Walter Lilly

Walter Lilly v Giles Mackay (2012) was presided over by Justice Akenhead, the Judge in charge of the Technology and Construction Court, prior to Justice Edwards-Stuart's appointment.

This was a case from the construction industry, which involved not only a building project, but a JCT contract. Justice Akenhead refers to Justice Hamblen's judgement in *Adyard* and describes it as a "shipbuilding dispute", before immediately saying "in any case" and then giving an alternative view to Justice Hamblen on the JCT contract.

Justice Akenhead says, *"I am clearly of the view that, where there is an extension of time clause such as that agreed upon in this case and* ***where delay is caused by two or more effective causes****, one of which entitles the Contractor to an extension of time as being a Relevant Event, the Contractor is entitled to a full extension of time…there is a straight contractual interpretation of Clause 25 which points very strongly in favour of the view that,* ***provided that the Relevant Events can be shown to have delayed the Works, the Contractor is entitled to an extension of time for the whole period of delay caused by the Relevant Events in question****".*

It's not clear (because 'effective cause' is not defined), but this seems to support the *Balfour Beatty v Chestermount* approach.

Saga Cruises

Saga Cruises v Fincantieri (2016) was another ship building case heard in the commercial court.

The agreed 'Date for Completion' (the "SCD") was 2 March 2012. It was held that the contractor ("the Yard") actually achieved completion on 16 March 2012, 14 calendar days late.

The Judge held that the Owner/Employer completed an item of its own works to the ship (alternator bearings for Genset 3) on 7 March, and another item (lifeboats) on 14 March, i.e. 2 days before the Yard achieved Completion.

The judge applied "concurrent delay" principles to these findings, to hold that the Yard was responsible for the period of delay from the SCD (2 March) to actual completion on 16 March.

In doing so the judge agreed with the Owner's argument which she sets out at para 293 to the effect that, "**On concurrent delay** they say that…*the Yard would not…*(have been able to) *deliver the Vessel before 13 / 14 March 2012 (i.e.* when the Owner's activities were completed), ***this was not a critical delay because the Yard had in any event not completed other (substantive) work which it* needed to complete…before it…(could) *deliver the Vessel***".

In other words, where the judge is referring to "*concurrent delay*", she is actually considering the issue of whether a delay is on the critical path or not.

It's nothing to do with a situation where, as the SCL puts it, an Employer delay event "*occurs after the commencement of the Contractor Delay to Completion but continues in parallel with the Contractor Delay".* There's no reference in the judge's reasoning to when delay events arose. The issue was solely when they finished, and specifically whether they drove completion (the judge didn't even look at events prior to the completion date stated in the contract, which was 2 weeks prior to completion, or examine when delays occurred**).**

In fact, there were numerous substantial apparent peculiarities about this judgement. Bearing in mind that it seems to have resulted (via the SCL Protocol), in much of the world-wide construction industry spending what could be as much as billions of dollars on disputes and other costs relating to the arguably seemingly farcical first in time approach to concurrency over the last 5 years, it seems important to make reference to these matters, which are summarised below.

- In assessing liability for the delays to completion **the judge only examines events and activities which took place *after* the SCD (contract completion date) had passed**. There's no consideration of the possibility that the Owners may have caused delay prior to the SCD to activities which the Yard was still working on after the SCD, or to any of their predecessors. No reference at all is made to any events or facts occurring prior to 2nd March 2012, i.e. the completion date/SCD.
- In fact no consideration appears to be given at all to the possibility of Employer/Owner delays to Contractor/Yard items of work. **All that the judge considers is which party's scope the items of work fell under, and within whose scope the item which finished last was.**
- The judge states (para 230) that one of the key issues in the case (and the only such key issue relating to causation for delays) is one of, "*whether any or all periods of delay for which the Yard is found responsible were also the fault of Owners and therefore concurrently caused*" (the assumption was that the whole of the period of delay was the Contractor's fault, other than to the

extent that there was concurrent Employer delay). This seems back to front. It seems to make no recognition of the concept of sequential Employer delays.

- The Judge explained that the Contractor had argued that the prevention principle applied on account of there being no extension of time clause (para 245), but then after apparently agreeing that there was no extension of time clause, appears to have never mentioned the argument again, and did not address it in her conclusion.
- The contract included a clause titled "Permitted Delay", which began with the words*, "The Scheduled Completion Date shall be extended only in the following circumstances…".* Yet the judge appears to have held that it was not an extension of time clause.
    - The judge described (at para 241) the Owner's argument[212] to the effect that there <u>was</u> an extension of time clause[213] i.e. the clause entitled "Permitted Delay" which stated, "*The Scheduled Completion Date shall be extended only in the following circumstances…"*, as being "<u>*over elaborate*</u>".
    - The judge described it as being a "*fact*" (para 246) that there was no extension of time clause
    - The judge embarked upon a mission of identifying Contractor/Yard delay rather than delay caused by the Owners (para 230, see above).
- Notwithstanding the conclusion that there was no extension of time clause, the judge subsequently went on to make reference to, "*extension to the SCD*" and "*extending the SCD*". It seems difficult to see how the SCD could be extended when it was a "fact" that there was no extension of time clause.
- The Judge appeared to support a contention that, "as is *often the case in construction in contracts*" the Liquidated Damages clause was a separate "regime" from the regime which, "*deals with extensions of time*…(which) *enables* (the Contractor)…*not only to avoid liability for liquidated damages, but also to make a claim for time related costs*". (para 238). In construction contracts however, the extension of time clause is a part of the LDs regime, not a part of the cost claims regime. This appears to be the same mistake which the Society of Construction Law's John Marrin paper made in 2002.
- Perhaps most incredible of all, the judge states that, "*it is not uncommon for liquidated damages clauses to be triggered simply by a date, with no correlation of fault at all."* (para 239). Furthermore, she finds for the Yard (with no criticism of its arguments) on a point on which it argues in part that an express clause is required in a contract in order in order to oust/preclude a *"claim for liquidated damages by the Owner when the Owner is responsible for the delay"* (para 239). **In other words, the argument was that without including an express clause to oust such a claim by an Owner/Employer, it would be valid, and the Owner/Employer could cause delay and recover damages payments from the Contractor for that delay. It is submitted that this proposition would effectively be the end of English contract law. It would be the opposite of justice, or anything resembling it. And yet the judge finds in favour of the overall argument without criticism of this contention.**

[212] which was presumably primarily a defence to the prevention principle argument
[213] albeit linked to a notice condition precedent

- The judge said that, "*The Owners' case is simple. They say that completion did not take place until 16 March 2012…The Owners therefore claim liquidated damages in respect of the delay between 2 and 16 March 2012*" (paras 228, 229). In other words the Owners case was that there was no causation consideration at all, but whatever the reason was the ship was late, the Yard had to pay liquidated damages. Many judges might have found this argument to be an unusual one. All the more so on the basis that the contract provided for Liquidated Damages to be paid by the Yard where late completion occurred "*for any reason whatsoever for which the Contractor is, or its employees, agents or sub-contractors are, responsible".* Yet again there is no criticism from the judge of this approach by the Owner (she actually finds for the Owner).

North Midland Building

The leading judgment in the Court of Appeal was given by the Society of Construction Law's current President Lord Justice Coulson. The case is called *North Midland Construction Ltd v Cyden Homes Ltd* (2018).

The judgement allows an express concurrent delay clause and formally adopts a part of the description given by John Marrin's 2003 Society of Construction Law paper as a legal definition of concurrent delay, "*a period of project overrun which is caused by two or more effective causes of delay which are of approximately equal causative potency".*

The Contractor in this case argued that the prevention principle meant that an express clause which stated that the Employer can take damages the Contractor can not get an extension of time, where there is concurrent delay, must be invalid, or at least the Employer can not rely on it to recover damages.

The court held that that was not the case.

Lord Justice Coulson states (at paragraph 32) that*, "the prevention principle has no obvious connection with the separate issues that may arise from concurrent delay. There is no mention of concurrent delay in any of the authorities on which the prevention principle is based (i.e. Holmes v Guppy, Dodd v Churton, Peak v Mackinney and Multiplex v Honeywell)."*

He also states that parties can contract out of the prevention principle (paragraphs 36 and 37).

See further comment on this case in Appendix A of the paper, and section 17 above.

Society of Construction Law Lord Justice Coulson paper

In 2019, the **Society of Construction Law** published a paper by their President Lord Justice Coulson on the topic of concurrent delay, titled, *"Prevention or cure ? Delay claims and the rise of concurrency*".

It is a very interesting and very informative paper. It does though contain a couple of slight peculiarities.

Firstly, Lord Justice Coulson spends almost all of the paper talking about the prevention principle and relating it to concurrent delay, notwithstanding that in the *Cyden Homes* judgement he states that the prevention principle is not related to concurrent delay.

Secondly, he states that a 2010 judgement of Justice Edwards-Stuart, which had taken the but for approach in favour of the Contractor, *De Beers v Atos Origin,* was a case which, "*turned…on the precise wording of the extension of time provision*". This is notwithstanding that Justice Edwards-Stuart's reasoning reflected what he described as,*"The general rule in construction and engineering cases"*.

On the final page of the paper, Lord Justice Coulson refers to his 2018 judgement and states, *"it seems likely that the popularity of concurrency clauses will continue to grow*", before concluding and warning that he expects these matters to, "***continue to supply work to lawyers and arbitrators for years to come*.".**

Thomas Barnes & Sons

In the recent judgement of *Thomas Barnes & Sons (in Administration) v Blackburn with Darwen Borough Council* (2022), Justice Davies considered the issue of concurrent delay.

In this case, there were 2 different (non-related) periods of delay in respect of each of which the judge considered the concurrency principle.

The issue which took up a larger part of the judgement, involved a claim by the Contractor for a period of 133 days extension of time, in respect of steelwork deflections for which the Employer was responsible, and upon which the commencement of concrete topping to floor slabs was dependent, and upon which the commencement of the "SBS finishes" was dependent.

The Employer's expert argued that this should be reduced to 39 days, on account of separate delays caused by the Contractor to some roof coverings, which it contended the SBS finishes was also dependent upon.

The Employer argued that for part of the period of delay contended by the Contractor, it was actually the roof coverings and not the steelwork deflections which were on the critical path. It was also noted that there was, "*a substantial period of delay **within** this period* (the period relating to the steelwork deflections) *which was caused by the roof coverings issue*"

Justice Davies held that the two paths were jointly critical throughout the period in which they were impacted by the respective delays (this appears to be a difficult finding to establish on the facts).

He awarded a full extension of time (save for a reduction of 14 days due to non-related issues). **He did not discount entirely the smaller period of delay caused by the Contractor's roof coverings which fell "within" the Employer's steelwork delay, but rather regarded it as an "*effective cause*" of delay**, and thereby "*concurrent over the period of delay caused by the roof coverings*" (which

appears to give a wide interpretation of the definition of that principle which Lord Justice Coulson gave in *Cyden Homes v North Midland Construction* in 2018).

Relying on Keating 11th Edition, he held that the law on concurrency, which he described as being "settled", provided that there should be a full extension of time for the period of the Employer delay. The Society of Construction Law Protocol would provide (on the same findings of facts) the same result, but would not consider the period to represent true concurrency, and would not consider the Contractor event to be an effective cause of delay.

Justice Davies then went on (paras 150-153) to consider a subsequent delay to a single critical path, involving setting out of finishes. After the finishes were completed, an instruction was issued to remove and replace the work due to a setting out issue. The Contractor argued that setting out was the Employer's responsibility. The facts are a little unclear, but it seems to have argued that it was entitled to an extension of time for the whole period effectively from commencement of the finishes the first time, until their completion the second time (presumably less a period for their reasonable installation, which was estimated to be 5 days) (75 days EOT). The Employer argued that this period should be reduced by some 51 days to 24 days, on account of exceptionally slow progress by the Contractor in undertaking the work, and that if it had completed the work in an orderly fashion, then the instruction to re-do the work would have been issued earlier.

The judge actually found that the setting out was not a Relevant Event. However he said that if he had found otherwise, then even though he accepted that the works would have been completed earlier if the Contractor had performed the works at a normal pace, then the Contractor would still be entitled to an EOT for the full period of delay, on the basis that it constituted "concurrent delay". It is suggested that the judge has made a mistake here. This is not concurrent delay in any sense (it's not even a dominant cause of a period of delay), it is two different sequential periods of delay caused by two different events. What's of note though is that it seems clear that if there had been parallel causes of the same period of delay, then the judge would have provided relief to the Contractor, notwithstanding that the Employer delay was subsumed by the Contractor's larger delay.

What seems clear (from the basis of the Judge's findings in respect of both of the periods of delay reviewed), is that in terms of concurrency, the judge in this case is reverting to the old position pre-Malmaison.

THE CASES REVIEWED ARE SUMMARISED WITHIN SECTION 25 OF THE REPORT ABOVE

APPENDIX F THE SOCIETY OF CONSTRUCTION LAW PROTOCOL DOCUMENTS

F1. GUIDANCE STRUCTURE AND HEADINGS

2001 Consultation

Section 3.5 was titled **Extensions of time**

Section 3.7 was titled **Concurrency as it relates to extension of time**

Appendix 5 was titled **Model methodology for analysis of delay events**

2002 1st edition

Guidance section 1 contains **Core Principles.**

Guidance section 1.4 was titled **Concurrency as it relates to extensions of time**

Guidance Section 3 was titled **Guidance on dealing with extensions of time during the course of the project**

2017 2nd edition

The document opens with a summary of **Core Principles**.

Guidance Section 4 is titled **Do not 'wait and see' regarding impact of delay events (contemporaneous analysis)**.

Core Principle 10 is titled **Concurrent delay- effect on entitlement to EOT**

F2. PRESENTATION OF THE GENERAL PRINCIPLE

2001 Consultation

Para 3.7.1 stated (in bold font) that, "*Where Contractor Delay to Completion* ***occurs*** *concurrently with Employer Delay to Completion, the Contractor's concurrent delay should not reduce any EOT due*".

2002 1st edition

Para 1.4.1 stated (in bold font) that, "*Where Contractor Delay to Completion* ***occurs*** *concurrently with Employer Delay to Completion, the Contractor's concurrent delay should not reduce any EOT due*".

2017 2nd edition

Core Principle 10 states, "*…Where Contractor Delay to Completion* ***occurs or has an effect*** *concurrently with Employer Delay to Completion, the Contractor's concurrent delay should not reduce any EOT due*".

F3. DEFINTION OF TRUE CONCURRENCY

2001 Consultation

Para 3.7.4 stated, "*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. True concurrent delay will be a rare occurrence*…"

2002 1st edition

Para 1.4.4 stated, "*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. True concurrent delay will be a rare occurrence*…"

2017 2nd edition

Para 10.3 states, "*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. True concurrent delay will be a rare occurrence*…"

F4. INTRODUCTION TO THE CONCURRENT EFFECTS OF SEQUENTIAL DELAYS

2001 Consultation

Para 3.7.6 stated, "*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***."

Para 3.7.6 stated, "*To avoid confusion, this is more correctly termed the 'concurrent effect' of* ***sequential delay events***".

2002 1st edition

Para 1.4.6 stated, "*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***."

Para 1.4.6 stated, "*To avoid confusion, this is more accurately termed the 'concurrent effect' of* ***sequential delays***".

2017 2nd edition

Para 10.4 states, "*In contrast, a more common useage of the term 'concurrent delay' concerns the situation where two or more delay events arise at different times, but the effects of them are* ***felt at the same time***".

Note: these changes do not appear to have any significance

F.5 SUBSTANTIVE GUIDANCE ON THE CONCURRENT EFFECTS OF SEQUENTIAL DELAYS

2001 Consultation

Paragraph 3.7.7 stated, "*Where Employer Risk Events and Contractor Risk Events occur sequentially but have concurrent effects…Contractor Delay should not reduce the amount of EOT due to the Contractor as a result of the Employer Delay.*.".

2002 1st edition

Paragraph 1.4.7 stated ***(now written in bold)*** , "*Where Employer Risk Events and Contractor Risk Events occur sequentially but have concurrent effects, here again any Contractor Delay should not reduce the amount of EOT due to the Contractor as a result of the Employer Delay".*."

2017 2nd edition

Paragraph 4.13 (in a section headed "contemporaneous analysis of delay") states, "*As noted in the Guidance to Core Principle 10**…** where Employer Risk Events and Contractor Risk Events occur sequentially but have concurrent effects, the delay analysis should determine whether there is concurrent delay and, if so, that an EOT is due for the period of that concurrency. In this situation any Contractor Delay should not reduce the amount of EOT due to the Contractor as a result of the Employer Delay."*

Paras 10.5-10.10 state, "*for concurrent delay to exist, each…must be an effective cause of Delay to Completion*…from a legal perspective there are competing views as to *whether an Employer Delay is an effective cause of Delay to Completion where it where occurs after the commencement of the Contractor Delay to Completion but continues in parallel with the Contractor Delay…the Employer Delay will not result in the works being completed later than would otherwise have been the case because the works were already going to be delayed by a greater period because of the Contractor Delay to Completion. Thus, the only effective cause of the Delay to Completion is the Contractor Risk Event. This is the consistent position taken in recent lower level English court decisions…the Employer Risk Event should be seen as not causing Delay to Completion (and therefore no concurrency). Concurrent Delay only arises where the Employer Risk Event is shown to have caused delay to Completion or, in other words, caused critical delay*"

An example is stated in paragraph 10.7, thus, "*a Contractor Risk Event will result in five weeks Contractor Delay to Completion, delaying the contract completion date from 21 January to 25 February. Independently and a few weeks later, a variation is instructed….which, in the absence of the preceding Contractor Delay to Completion, would result in Employer Delay to Completion from 1 February to 14 February*".

Paragraphs 10.12-10.16 are under the heading, "*Dealing with concurrent delay*".

Para 10.12 states, "*Where concurrent delay has been established, the Contractor should be entitled to an EOT for the Employer Delay to Completion…The Contractor*

Delay should not reduce the amount of EOT due to the Contractor as a result of the Employer Delay…"

Para 10.16 states, "*The Protocol's position on concurrent delay is influenced by the English law 'prevention principle'…"*

Paragraph 4.13 (in a section headed "contemporaneous analysis of delay") states, "*As noted in the Guidance to Core Principle 10… where Employer Risk Events and Contractor Risk Events occur sequentially but have concurrent effects, the delay analysis should determine whether there is concurrent delay and, if so, that an EOT is due for the period of that concurrency. In this situation any Contractor Delay should not reduce the amount of EOT due to the Contractor as a result of the Employer Delay. Analyses should be carried out for each event separately and strictly in the sequence in which they arose*."

F6. PRACTICAL GUIDANCE ON SEQUENTIAL UPDATING

2001 Consultation

Paragraph 3.7.7 stated, "*Where Employer Risk Events and Contractor Risk Events occur sequentially but have concurrent effects…Analyses should be carried out for each event separately and strictly in the sequence in which they arose*.".

Appendix 5 was stated to relate to prospective and retrospective analyses. It contained a heading "concurrency" which stated, *(NB When Considering EOT when a Contractor Risk Event occurs on the same day as an Employer Risk Event, the effects of the Contractor Risk Event would not reduce any EOT indicated by the Employer Risk Event alone)*"

2002 1st edition

Paragraph 1.4.7 stated, "*Where Employer Risk Events and Contractor Risk Events occur sequentially but have concurrent effects…**Again it will be necessary to carry out analyses of each delay…This analysis will be important for determining whether any compensation will be due for the Employer Delay**…Analyses should be carried out for each event separately and strictly in the sequence in which they arose*."

Para 3.2.12, "*As noted in…1.4.7, where Employer Risk Events and Contractor Risk Events occur sequentially but have concurrent effects….Analyses should be carried out for each event separately and strictly in the sequence in which they arose*.".

2017 2nd edition

Paragraph 4.13 (in a section headed "contemporaneous analysis of delay") states, "*As noted in the Guidance to Core Principle 10… where Employer Risk Events and Contractor Risk Events occur sequentially but have concurrent effects**, the delay analysis should determine whether there is concurrent delay and, if so, that an EOT is due for the period of that concurrency**…Analyses should be carried out for each event separately and strictly in the sequence in which they arose*."

F7. PRACTICAL GUIDANCE ON IMPACTING DELAY EVENTS

2001 Consultation

Paragraph 3.5 stated, "*The amount of EOT is determined by using the Updated Programme. The steps to be taken are as follows:*

- *The approved programme should be brought fully up to date (as to progress and the effect of all delays that have occurred up to that date, whether Employer Delays or Contractor Delays) to the point immediately before the occurrence of the Employer Risk Event*
- *The sub-network representing the Employer Risk Event should then be entered into the programme*
- *The impact on the contract completion dates should be noted*"

Appendix 5 was stated to relate to prospective and retrospective analyses. It contained a heading "concurrency" which stated, *"A frequent response to any delay claims…specifically address (culpable delay)…by the inclusion of Contractor progress by statusing the network before incorporating any event subnets and* ***by the inclusion of all known prospective Contractor delays***[214]*….Because the analysis is sequenced so that on any given analysis date the Contractor's progress is updated before any subnets are added or updated, the analysis can not be said to favour either party*

2002 1st edition

Paragraph 3.2.7 stated, "*A guide to the amount of EOT is obtained by using the Updated Programme. The steps to be taken are as follows:*

- *The Programme should be brought fully up to date (as to progress and the effect of all delays that have occurred up to that date, whether Employer Delays or Contractor Delays) to the point immediately before the occurrence of the Employer Risk Event*
- *The programme should then be modified to reflect the Contractor's realistic and achievable plans to recover any delays that have occurred, including any changes in the logic of the Programme proposed for that purpose (subject to CA review…)*
- *The sub-network representing the Employer Risk Event should then be entered into the programme; and*
- *The impact on the contract completion dates should be noted*"

2017 2nd edition

Paragraph 4.8, under the heading "*contemporaneous analysis of delay*" is identical to Paragraph 3.2.7 in the 1st edition, except that in the second step, modifications of the programme are limited to those which are, "**reasonable***, realistic and achievable plans to recover any delays that have occurred…subject to CA review* ***and acceptance****…)*

[214] There would have been no legal precedent for this approach in relation to an extension of time claim

THE WRONG PATH

PART 9

BIBLIOGRAPHY AND TABLE OF CASES AND POSTSCRIPT

THIS PAPER DOES NOT CONTAIN LEGAL ADVICE. THIS PAPER DOES NOT PROVIDE ADVICE OR GUIDANCE, IT IS A DISCUSSION PAPER, AND IS NOT INTENDED TO BE RELIED UPON

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Our History, The Joint Contracts Tribunal **26**

Prevention and all that, Hogan Lovells International LLP (A R Marshall)/Feconslaw 2021 **133, 138, 145**

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TABLE OF CASES

Name and Year	Reference	Page
Adyard Abu Dhabi v SD Marine Services (2011)	[2011] EWHC 848 (Comm)	43, 54, 84, 90, 91, 92, 101, 104, 111, 119, 170-176
Alfred McAlpine Construction v Panatown Limited HL (2000)	[2000] UKHL 43	58
Alghussein Establishment v Eton College (1988)	[1] [1988] 1 WLR 587	24, 67, 115, 119, 123, 127, 128, 131, 144
Amalgamated Building Contractors v Waltham Holy Cross UDC (1952)	2 All England 452	36
Ascon Contracting Ltd v Alfred McAlpine Construction Isle of Man Ltd (1999)	[1999] 66 ConLR 119	38
ASTILLEROS CANARIOS S.A. v. CAPE HATTERAS SHIPPING CO. INC. AND HAMMERTON SHIPPING CO. S.A.	[1982] 1 Lloyd's Rep. 518	121
Australian Development Corp Pty Ltd v White Constructions (ACT) Pty Ltd (2001)	[2001] NSWCA 9	159
Balfour Beatty Construction Ltd v The Mayor and Burgess of the London Borough of Lambeth (2002)	[2002] EWHC 597 (TCC)	40, 50, 90, 92, 151, 166
Balfour Beatty v Chestermount Properties (1993)	(1993) 62 BLR 12	36, 39, 43, 90, 104, 110, 158, 160
BDW Trading Ltd (T/A Barratt North London) v JM Rowe (Investments) Ltd (2011)	[2011] EWCA Civ 548	116, 142, 144
Bensons Property Group Pty Ltd v Key Infrastructure Australia Pty Ltd (2021)	[2021] VSCA 69	109
Blue Circle Industries plc v Holland Dredging (UK) Ltd (1987)	(1987) 37 BLR 40	86
Bluewater Energy Services v Mercon (2014)	[2014] EWHC 2132 (TCC)	112
Bunge SA v Nidera BV (2015)	[2015] UKSC 43	59, 64, 67, 130, 136
Cavendish Square Holding BV v Talal El Makdessi (2015) ParkingEye Ltd v Beavis (2015)	[2015] UKSC 67	59, 60, 64,
Cheall v A.P.E.X (1983)	[1983] 2 AC 180	113, 143, 144
Chua Tian Chu and another v Chin Bay Ching and another ("Chua Tian Chu")	[2011] SGHC 126	139
City Inn v Shepherd (2010)	[2010] ScotCS CSIH 68	43, 90, 93, 169
Clydebank Engineering v Castaneda (1904)	[1904] UKHL 3	137

De Beers UK Ltd (formerly Diamond Trading Co Ltd) v Atos Origin IT Services UK Ltd (2010)	[2010] EWHC 3276 (TCC)	44, 90, 168, 181
Dodd v Churton (1897)	1 QB 562	24, 25, 26, 28, 29, 30, 36, 120, 134, 143
Duncanson v Scottish Investment Co (1915)	[1915] SLR 790	25
Dunlop Pneumatic Tyre v New Garage (1914)	[1914] UKHL 1	58, 65, 136
Evergreat Construction Co Pte Ltd v Presscrete Engineering Pte Ltd [2006](“Evergreat Construction”)	1 SLR(R) 634	109, 116, 133
Fairweather v London Borough of Wandsworth (1987)	[1987] 38 BLR 106	159
Fluor v Shanghai Zhenhua Heavy Industry Co, Ltd (2018)	[2018] EWHC 490 (TCC)	44
Golden Straight Corporation v Nippon Yusen Kubishka Kaisha (2007)	[2007] UKHL 12	58
Goodlife Foods Ltd v Hall Fire Production (2018	EWCA 1371	132
Goodriaan v Jenda Corporate Holdings Ltd & Ors (2019)	[2019] IEHC 621	131, 141
Great Eastern Hotel v John Laing Construction (2005)	[2005] EWHC 181 (TCC)	42
Havant Borough Council v South Coast Shipping Company Ltd (1996).[2001]	[2001] EWHC 9017	86
Henry Boot Construction (UK) Ltd v Malmaison Hotel (Manchester) Ltd (1999)	(1999) 70 Con LR 32	39, 58, 83, 91, 92, 99, 160, 161
HM Attorney General v Blake (2000)	[2000] UKHL 45	58
Holland Dredging (UK) Ltd v Dredging and Construction Co Ltd (1987)	(1987) 37 BLR 1	86
Holme v Guppy (1836)	3 M. & W. 387	24, 25, 27, 28, 29, 31, 32, 67, 108, 120, 122, 126, 134, 143, 146
John Barker Construction Ltd v London Portman Hotel Ltd (1996)	[1996] 83 BLR 31	37, 38, 50, 91, 159,
Johnson v Agnew (1980)	[1980] AC 367	58
Jones v St. Johns College Oxford (1870)	(1870) LR 6 QB 115	32, 130
Lim Chin San Contractors Pte Ltd v LW Infrastructure Pte Ltd (2011)	[2011] 4 SLR 455	111

London Underground v. Citylink (2007)	[2007] EWHC 1749 (TCC)	42
Mirant Asia-Pacific Construction(Hong Kong) Ltd v.Ove Arup &Partners International Ltd (2007)	[2007] EWHC 918 (TCC)	43
Motherwell Bridge Construction v Micafil Vakuumtechnik	(2002) CILL 191	90, 164
MP Water Pty Ltd v Veolia Water Australia Pty Ltd (No 3) (2021	[2021] NSWSC 1023	142
Multiplex Constructions v Honeywell Control Systems (No 2) (2007)	[2007] EWHC 447 (TCC)	110, 119, 127, 140
Nautica Marine Limited v Trafigura Trading LLC (2020),	[2020] EWHC 1986 (Comm)	24
New Zealand Shipping Co v Société des Ateliers et Chantiers de France [1919]	[1919] AC 1	24, 28, 32, 108, 113, 124, 126, 128, 143
Ng Koon Yee Mickey v Mah Sau Cheong (2022)	[2022] SGHC(A) 33	109, 142
North Midland Construction Ltd v Cyden Homes Ltd (2018)	[2018] EWCA Civ 1744	66, 112, 120-140, 145, 158, 180
Peak Construction (Liverpool) Ltd v McKinney Foundation Ltd (1970)	1 BLR 111	11, 27, 29, 111, 121, 122, 124
Percy Bilton Ltd v Greater London Council (1982)	[1982] 1 WLR 794	30, 31, 111, 125, 127, 128, 131, 143
Petroplus Marketing AG v Shell Trading International Ltd (2009)	[2009] EWHC 1024 (Comm)	119, 142
Printing and Numerical Registering Co v Sampson (1875)	(1875) 19 Eq 462	108
Richo International v Alfred C Toepfer International" (1991)	[1991] 1 Lloyds Rep, 136	116, 117, 126, 144
Rede v Farr (1817)	105 E.R. 1188	24, 28, 108, 122, 128, 138
Roberts v The Bury Improvement Commissioner [1870]	[1870] LR 5 C P 310	24, 67, 108, 120, 122, 128, 146
Robinson v Harman (1848)	(1848) 1 Ex Rep 850	58
Royal Brompton Hospital National Health Service Trust v Hammond & Others (2002)	[2002] EWHC 2037 (TCC)	41, 50, 89, 90, 104, 152, 166

Royal Brompton Hospital NHS Trust v Frederick A Hammond & Others (2000)	[2000] EWCH Technology 39	39, 50, 78, 87, 90, 91, 93, 104, 161-163
Saga Cruises v Fincantieri (2016)	[2016] EWHC 1875 (Comm)	47, 84, 90, 92, 101, 119, 144, 177-179
Skanska Construction UK Ltd (formerly Kvaerner Construction Ltd) v Egger (Barony) Ltd (2004)	[2002] EWCA Civ 1914	42
SMK Cabinets v Hili Modern Electrics (1984)	VR 391	112, 155, 121, 144
Société Générale (London Branch) v Geys (2012)	[2012] UKSC 63	24, 67, 112, 128, 146
Steria Ltd v Sigma Wireless Communications Ltd (2008)	[2008] BLR 79 TCC	90, 168
Thomas Barnes & Sons PLC (IN ADMINISTRATION) v Blackburn with Darwen Borough Council (2022)	[2022] EWHC 2598 (TCC)	44, 83, 91, 103, 181
Transfield Shipping Inv v Mercator Shipping Inc (2008)	[2008] UKHL 48	58
Trollope & Colls Ltd v North West Metropolitan Regional Hospital Board (1973)	[1973] 2 AII ER 260	25, 29, 36, 111, 121, 122, 131
Walter Lilly & Company Ltd v (1) Giles Patrick Cyril Mackay (2) DMW Developments Ltd (2012)	[2012] EWHC 1773 (TCC)	44, 50, 121, 129, 132, 177
Wells v Army and Navy Co-op Society (1902)	(1902) 86 LT 764	26, 27, 32, 36, 86, 130
Yap Boon Keng Sonny v v Pacific Prince International Pte Ltd (2008)	[2009] 1 SLR(R) 0385	139
Yorkshire Water Authority v Sir Alfred McAlpine & Son (Northern) Ltd (1985)	(1986) 32 BLR 114	86

Postscript

There are two points which I did not properly bring out in the report.

The first is that the word "prevention" has, in regards to delays in the performance of a project with a fixed completion date, traditionally (since at least the 19th century) referred to the employer preventing the contractor from being able to complete within the fixed period, thereby making the completion obligation unenforceable (see Sections 6-8 of the report). Any delays on the contractor's own account had no bearing on the matter.

It's only in the 21st century, and the advent of the Society of Construction Law's Protocol, that prevention has been taken to occur only where the then projected project end date is further extended. The term 'prevention' was used by Justice Hamblen in the Adyard judgement in 2011 (see Appendix E) in this new way.

This difference is partially explained in the report, for example in Section 32 on page 122. However I myself make the mistake/slip of using the word 'prevention' in the SCL sense in places, for example on page 22 in Section 5 where I talk about critical path analysis taking a "prevention approach" in some cases, and in Section 20 where I talk about the SCL's 2001 consultation document.

The other point that should have been brought out more, is the fact that the laws on penalties (see Section 16) or 'no loss' or similar laws in civil law jurisdictions (See Section 19), appear to necessitate that damages should be assessed by measuring the difference between i) the date of actual completion, i.e. the end of the critical path, and ii) the end of the aggregate period of Employer delays beyond the completion date.

In the examples given in Section 17 (Figures 3,4 and 5 on pages 63-65),
this means measuring the difference between the end of the red line (the critical path) and the end of the green line (the Employer delay).

The end of the red line can be identified simply from the date of actual completion stated in the certificate of Practical Completion, so an extension of time provision needs to measure the Employer delay (irrespective of any delays caused by the Contractor). In the case of the working examples in Section 17 this means measuring the green line.

This approach also fulfils the purpose of an extension of time clause as explained in Section 3 of the report (which considers the theory of extension of time) and also the purpose of an extension of time clause as explained in Section 8 of the report (which considers the history and origins of the prevention rule).

Critical path analysis inexplicably and randomly only measures Employer delay when it impacts upon what happens to be - at the particular point in the project which coincides with the timing of the Employer delay event - the then longest path to the completion of the Works (i.e. the red line in the examples in Section 17). It measures the wrong line.

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Further note:

The discussion on pages 136/137 regarding the focus of consideration of a penalty being on the breach or the wrong/default of the performing party, would better have been included in Section 16.2 and cross-referenced in the discussion on pages 137/137, rather than the other way around. For avoidance of doubt, it is recommended that readers should consider that discussion when reviewing Sections 16 and 17.

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Further note:

I refer within the chapter on *North Midland Building Ltd v Cyden Homes Ltd (*within Appendix A) to Lord Justice Coulson as "*The President of the Society of Construction Law Lord Justice Coulson*". In fact, Lord Justice Coulson became President of the SCL at some point in 2018, and the decision in North Midland Building is dated early July 2018. I'm unable to find the exact date when Lord Justice Coulson took over from (the very highly respected) Sir Rupert Jackson as the SCL's President. On that basis I may well have been factually wrong to refer to Lord Justice Coulson in those terms within that chapter. Apologies for that.

Also, I don't know if it comes across in the paper, but it crossed my mind at times that there may be some kind of judicial plan to protect the critical path business. In the end, I've reached no strong view on that one way or the other even in my own mind, and I should clarify that it is quite possible that there is no such plan at all.