
THE INTERNATIONAL CONSTRUCTION LAW REVIEW

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CONSTRUCTIVE ACCELERATION: EXPLORING THE DELAY/ACCELERATE QUANDARY¹

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“‘Acceleration’ tends to be bandied about as if it were a term of art with a precise technical meaning, but I have found nothing to persuade me that that is the case.”⁶

¹ Some notes on this paper: (a) the co-authors would like to extend their gratitude to Stefan Pislevik, Associate, Freshfields for his great assistance with this paper; (b) given the multiple co-authors involved, the views expressed in this paper are not necessarily held by each co-author; (c) Professor Doug Jones AO contributed Section VIII of this paper only and for the reasons indicated in that section has not authored, nor expressed any views on, the other sections of this paper; and (d) the original version of this paper was produced for the 10th Society of Construction Law International Conference in Istanbul in 2023.

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⁶ *Ascon Contracting Ltd v Alfred McAlpine Construction Isle of Man Ltd* (QBD (TCC)) [1999] All ER (D) 1147; 66 Con LR 119; (2000) 16 Const LJ 316 at paragraph 50.

I. ABSTRACT

A motivational speaker once said: The bad news is time flies. The good news is you're the pilot.⁷ This neatly sums up the contractor's perspective at the start of a construction project. The problem is that too often delays then creep in (or arrive with a thud). Where air traffic control (ie, the engineer/employer)⁸ considers the pilot (ie, the contractor) is responsible for that delay, the pilot has a choice: be late or accelerate – what we call the “delay/accelerate quandary”. But responsibility for the time and cost consequences is often contentious. And while the pilot and air traffic control continue to argue, that can imperil the economical implementation of sensible acceleration measures. Ultimately, the pilot may feel compelled to accelerate without a formal instruction to protect itself from the potential consequences of being late – and argue later. This is one of the most challenging situations on a construction project from the perspectives of cost, time and commercial management – both contemporaneously and after-the-event in a dispute context.

This paper addresses the following topics:

- (a) Section II introduces the different types of acceleration and some of the commercial realities;
- (b) Section III identifies the origins of the “*constructive acceleration*” doctrine;
- (c) Section IV then explains the elements of a constructive acceleration cause of action in the US;
- (d) Section V considers potential constructive acceleration causes of action in other jurisdictions;
- (e) Section VI addresses some thorny aspects of causation in the context of a constructive acceleration claim – in particular, how to prove the cause of the underlying delay and demonstrate that the costs claimed relate to acceleration measures;
- (f) Section VII provides a checklist of steps a prudent contractor ought to consider when faced with the delay/accelerate quandary to put themselves in the most favourable position when seeking to then recover its additional costs;
- (g) Section VIII provides the perspective of an international arbitral tribunal when faced with constructive acceleration claims;
- (h) Section IX sets out a couple of innovative contractual ways to avoid or address the delay/accelerate quandary to minimise disputes and promote the overall project economics; and
- (i) finally, Section X sets out the paper's conclusions.

⁷ Attributed to Michael Altshuler.

⁸ For ease of reference, this paper refers generically to: (a) the “*engineer*” (which is the nomenclature in the FIDIC suite) as the person or entity appointed to act as the employer's agent/certifier under the construction contract (whereas other standard form contracts use terms such as architect, superintendent or contract administrator); and (b) the “*employer*” as the counterparty to the construction contract that is procuring the works. Further, while this paper refers to the situation between the contractor and the employer, often the commentary is equally applicable as between a sub-contractor and the contractor and so on down the supply chain.

II. INTRODUCTION

There are three types of acceleration:⁹

- (a) Voluntary: where the contractor chooses to accelerate of its own volition. In doing so, though, the contractor needs to be mindful of any contractual obligation to proceed in accordance with the approved baseline programme.¹⁰ For example, if its voluntary acceleration efforts involve resequencing the works, that may lead to grievances from the engineer/employer, particularly if the engineer/employer had been planning their approval and coordination of activities by reference to the previous sequence.
- (b) Instructed or directed: where the contractor is instructed by the engineer/employer to accelerate. Whether the contractor is entitled to additional payment for those acceleration efforts is a different question. For example, in clause 8.7 of the FIDIC 2017 suite,¹¹ if the contractor's progress is behind programme because of *non-excusable* causes, the engineer may instruct the contractor to issue a revised programme incorporating acceleration measures. The contractor does not have an entitlement to additional payment for effecting those acceleration measures. Conversely, if the engineer instructs acceleration measures to reduce delays arising out of *excusable* causes, the variations procedure – and valuation – in clause 13.3.1 is to apply. In the US, ASCE 67 recommends that the right to direct acceleration unilaterally should be addressed by contract.¹² Under other forms of contract, depending on the circumstances, arguments might arise that a directive from the engineer/employer to recover delay constitutes an instruction to accelerate.
- (c) Constructive: where the contractor says it was owed an extension of time (“EoT”), but its EoT claim was wrongly denied or not timely granted, forcing it to accelerate. In other words, this is where the contractor faces the delay/accelerate quandary mentioned earlier – whether to maintain its stance of EoT entitlement or mitigate the risk of liquidated damages/penalties by accelerating to recover some or all the critical delay – and chose to accelerate.

⁹ See generally, Dale, W S and D’Onofrio, R M, *Construction Schedule Delays* (Thomson Reuters, 2023), § 3:8 Acceleration; Wilbraham, A and Rovinescu, L, “Acceleration” in Rosenberg, K, Miller Rankin, E, Dayton, B (eds), *Dealing with Delay and Disruption on Construction Projects* (Sweet & Maxwell, 2020), Ch 6.

¹⁰ Throughout this paper, the authors refer to both programme and schedule to mean the same thing. Industry nomenclature differs slightly on each side of the Atlantic.

¹¹ For example, Fédération Internationale des Ingénieurs-Conseils (FIDIC), *Conditions of Contract for Construction* (2nd Edition, 2017) (Red Book), clause 8.7.

¹² American Society of Civil Engineers (ASCE), *Schedule Delay Analysis 67-17* (2017), Guideline 11.2, p 21.

Constructive acceleration is the focus of this paper given, in many jurisdictions, it can present the most difficult legal entitlement issues of any acceleration claim, indeed probably of any construction claim.

Before turning to constructive acceleration, though, it is helpful to note three commercial realities relevant to acceleration on delayed construction projects. First, it is obvious that where there is critical delay, in the absence of acceleration, the works will be completed late. There are financial consequences of that delay, which counterparties tend to address as between themselves through liquidated damages/penalties or additional payment for prolongation (depending on which party is responsible for the cause of delay). From an overall project economics perspective, it makes sense to accelerate where the costs of those measures are less than the financial consequences of the delay. This is called efficient acceleration. Both parties are financially better off if efficient acceleration is achieved, rather than delayed completion (regardless of whether the contractor or employer bears the risk of the delay). Secondly, there is often a window when efficient acceleration measures are available but if those measures are not timely taken, the alternative to recovering critical delay is inefficient acceleration measures, where the cost of those measures is greater than the financial consequences of the project being finished late. For example, there may be efficient acceleration where an additional concreting labour gang is added immediately after defective concrete pours are identified to rectify that defect, as opposed to seeking to recover critical delay by adding additional (and more expensive) electricians later in the project when the site is more congested. Thirdly, at the time decisions need to be taken or are taken regarding acceleration measures, the parties may have imprecise information available to them regarding the cost of the proposed acceleration measures and the financial consequences of critical delay. That can make it difficult to determine whether the proposed measures would permit efficient acceleration.

With these introductory concepts in mind, we turn then to constructive acceleration, a concept often bandied about in the context of construction projects, but perhaps sometimes without a proper understanding of what it legally means.

III. ORIGINS OF THE CONSTRUCTIVE ACCELERATION DOCTRINE

The doctrine of constructive acceleration traces its origins to the US Armed Services Board of Contract Appeals, which administered contractual disputes between contractors and certain federal government agencies. Historically, its jurisdiction was limited to hearing claims under and within the contract, and not for breach of contract or for other causes of action outside the terms of the contract.

This theory of constructive acceleration was used to justify an acceleration claim within the confines of a contract (under the changes clause), without resorting to extra-contractual causes of action such as a breach of contract, that would otherwise fall outside of the Board's jurisdiction.

Despite provisions requiring changes (ie, variations) to be instructed in writing, the Board rendered decisions finding that in some circumstances a written instruction was not required to effectively instigate a change, thus creating the doctrine of constructive change.¹³ Under the US Federal Acquisition Regulations (FAR), if [a]ny other written or oral order of the contracting officer (ie, the employer) causes an increase or decrease in the work, even if not specifically directed, the contractor may seek an equitable adjustment provided the contractor provides notice that it deems the action to be a change to the contract.¹⁴ Over time, that principle was applied in circumstances where the contractor was deprived of an EoT to which it was entitled, and where the government continued to insist on timely performance, and threatened liquidated damages or ordered the contractor to complete on time.¹⁵ It is in this context that the doctrine of constructive acceleration arose.

IV. ELEMENTS OF A CONSTRUCTIVE ACCELERATION CAUSE OF ACTION IN THE UNITED STATES

So, what are the elements of a claim advanced under the US doctrine of constructive acceleration? Although the specific elements vary across jurisdictions in the US, in general terms, the contractor is required to demonstrate the following:¹⁶

¹³ *Farnsworth & Chambers Co Inc* ASBCA No 4945, 59-2 BCA ¶1960 WL 765 (1958) (“We ... conclude that the act of the government requiring the appellant to complete the buildings sooner than would have been the contract completion date had the time of performance been extended for excusable delays, was a change for which appellant was entitled to an equitable adjustment in contract price.”).

¹⁴ The Federal Acquisition Regulation (FAR) 52.243-4.

¹⁵ See, eg, *Appeal of Mech Utilities Inc* ASBCA No 7345, 1962 BCA (CCH) ¶ 3556 (31 October 1962) (It follows that the directions to the contractor to complete the work on time without regard to the excusable delays were the equivalent of an order to perform work at a faster rate than required by the contract); *Appeal of Peter Kiewit Sons' Co* ASBCA No 9921, 69-1 BCA (CCH) ¶ 7510 (31 January 1969) citing *Yukon Construction Company Ltd* ASBCA No 10859, 67-1 BCA ¶6334 (“If, while a claim for time extension is pending, the contracting officer takes away the contractor's option of continuing work at a normal pace by ordering him to complete the work by the original contract completion date without regard to the pending extension of time, the contracting officer assumes for the Government the responsibility of paying the appellant for the cost of acceleration if the time extension later proves to be justified.”).

¹⁶ *Fraser Construction Co v US* 384 F.3d 1354, 1361 (Fed. Cir. 2004) (note that in this case, in the context of contracting with the federal government, the fourth element also requires that the contractor notified that it regarded the alleged order to accelerate as a constructive change in the contract); *Murdock & Sons Construction Inc v Goheen General Construction Inc* 461 F.3d 837, 840 (7th Cir 2006); *SNC-Lavalin America Inc v Alliant Techsystems Inc* 858 F.Supp 2d 620 (W.D Va. 2012). See generally, Dale, W S and D'Onofrio, R M, *Construction Schedule Delays* (Thomson Reuters, 2023), § 3:8 Acceleration.

- (a) the contractor encountered critical delay that is excusable under the contract;
- (b) the contractor made a timely and sufficient request for an extension of the contract schedule;
- (c) the employer denied the contractor's request for an extension or failed to act on it within a reasonable time;¹⁷
- (d) the employer insisted on completion of the contract within a period shorter than the period to which the contractor would be entitled considering the period of excusable delay; and
- (e) the contractor was required to (and did) expend extra resources to compensate for the lost time and remain on schedule.

These elements are also generally reflected in industry standard ASCE 67-17, Schedule Delay Analysis, which outlines a very similar five-part test.¹⁸

Each of these elements may give rise to difficulties in making out a successful constructive acceleration claim. Each element is taken in turn below.

(a) Excusable Critical Delay

The first element is that the contractor encountered critical delay that is excusable under the contract (but it need not be a compensable delay).¹⁹ The primary difficulty here is that at the time a decision is made to accelerate, the cause of the predicate critical delay may be unclear. That can be as a matter of fact, ie, what caused the critical delay, as well as a matter of law, ie, who is responsible for the critical delay under the contract. Indeed, the position under each may not be any clearer at the time a formal claim for acceleration costs is made.

¹⁷ It is noted that most standard form contracts commonly used in the US along with the US Federal Acquisition Regulations do not have a third party fulfilling the certification function. Instead, it is the Employer who assesses EoT requests.

¹⁸ American Society of Civil Engineers (ASCE), *Schedule Delay Analysis 67-17* (2017), Guideline 11.3, p 21: "Constructive acceleration may be proved by showing that: (1) the contractor encountered an excusable delay; (2) the contractor made an appropriate time extension request; (3) the owner denied all or part of the time extension request or failed to act on it within a reasonable time; (4) the owner insisted the earlier completion date must be met or insinuated liquidated damages and the contractor notified the owner that the alleged acceleration order was regarded as a constructive change; and (5) the contractor expended additional costs to accelerate performance."

¹⁹ See, eg, *Norair Engineering Corp v US* 229 Ct. Cl. 160; 666 F.2d 546; 29 Cont. Cas. Fed (CCH) ¶ 82055 (Ct. Cl. 1981) (acceleration costs allowed for strikes, unusually severe weather, and changes); *Appeals of Atlantic Dry Dock Corp* ASBCA No 42609 et al, 98-2 BCA (CCH) ¶ 30025, 1998 WL 681504 (Armed Serv BCA 1998), on reconsideration, ASBCA No 42679, 99-1 BCA (CCH) ¶ 30208, 1999 WL 6662 (Armed Serv BCA 1999) (allowing acceleration costs for unusually severe weather); *Appeal of Lagnion* ENGBCA No 3778, 78-2 BCA (CCH) ¶ 13260, 1978 WL 2233 (Corps Eng'rs BCA 1978) (allowing acceleration costs for unusually severe weather); *Appeal of Pathman Const Co* ASBCA No 14285, 71-1 BCA (CCH) ¶ 8905, 1971 WL 1337 (Armed Serv BCA 1971) (acceleration costs allowed for strikes).

For example, if the sole predicate critical delay event is the contractor's lack of site access and the employer carries responsibility for such delay, this would arguably provide the contractor with greater comfort to embark upon a course of acceleration, in contrast to a scenario where there are multiple delay events for which the employer and contractor may each carry liability and it is not clear which actually caused the critical delay. To make things more difficult, consider a scenario where culpability for the delay event is disputed – eg, where defective work could arise either because of poor contractor workmanship, or poor employer-supplied design. The cause of a defect may not be clear for quite some time, particularly if the defective work is concealed by subsequent trades. Under disputed entitlement, an ultimate determination that the delay was excusable is often not resolved until a proceeding in front of a court or tribunal, frequently preventing early resolution of constructive acceleration claims.

How the contractor might demonstrate excusable critical delay for the purposes of entitlement overlaps with proving causation, which is further addressed below.

(b) Timely and Sufficient Request for an EoT

The second element is a timely and sufficient request for an EoT for the predicate delay event. The potential issues in the context of a constructive acceleration claim are no different than a standalone EoT request. Care needs to be taken by the contractor not just in respect of abiding by contractually prescribed notice and claim *periods*, but notices and claims must also adhere to content requirements.

Depending on the contract wording and governing law of the contract, notice and claim provisions may be conditions precedent to entitlement such that a failure to adhere may be fatal to an EoT request as well as for the corresponding constructive acceleration claim. For example, courts in the US have denied constructive acceleration claims where notice was provided and a request for an EoT was made timely, but the EoT did not request a specific number of days.²⁰ US courts have also denied constructive acceleration claims where the EoT request was made after substantial completion, and any acceleration costs were already incurred by the time of the EoT request.²¹

²⁰ *Zafer Taahhut Insaat Ve Ticaret AS v US* 833 F.3d 1356 (Fed. Cir. 2016).

²¹ *LCC-MZT Team IV v US* No 16-1406C (Fed. Cl. 23 April 2021).

(c) Denial of EoT or Failure to Assess within Reasonable Time

The third element is that the employer denies the EoT request, grants an inadequate amount of time compared to the EoT request, or the contractually prescribed period to respond to an EoT request expires without a determination having been made. On this latter point, attention should be given to the contract in case it provides that a claim is deemed rejected where it is not determined within a specified timeframe.²²

This third element becomes more challenging where the contract does not specify the time period in which an EoT claim is to be determined. In that situation, the employer (or engineer) would be given a reasonable time to determine the EoT request, the actual duration of which will be fact specific.

Even if an EoT is not fully denied, but partially denied, the employer may still have liability for constructive acceleration.²³ For instance, if the number of days awarded as an EoT is inadequate to cover the contractor's full entitlement, this element can still be met.²⁴

Taking these last two elements together, the contractor should avoid accelerating before an EoT request for the predicate delay event is fully made and a determination issued (or the period for the determination has expired), irrespective of whether they believe the EoT will be granted. Otherwise, the contractor runs the risk that any acceleration that could ultimately be instructed or constructive becomes voluntary acceleration that will not be compensated.

To describe this in more practical terms, the engineer/employer cannot be taken to have impliedly directed acceleration of the works in circumstances where they did not have an opportunity to grant or refuse an EoT. The authors recognise, however, that it takes time to prepare a properly particularised and substantiated claim and for it to be properly assessed by the engineer/employer and the passage of time for these steps may mean the parties miss the window for implementing efficient acceleration measures.

²² For example, Fédération Internationale des Ingénieurs-Conseils (FIDIC), *Conditions of Contract for Construction* (2nd Edition, 2017) (Red Book), clause 3.7.3(i).

²³ See, eg, *Fraser Construction Co v US* 384 F.3d 1354, 1362 (Fed. Cir. 2004) ("The Corps granted time extensions totalling 30 calendar days to Fraser during the course of the project. In order to prevail on its claim of constructive acceleration, Fraser was required to prove that the delays it encountered were not adequately remedied by the 30 additional days it received.")

²⁴ See eg, *United Constructors LLC v United States* 95 Fed. Cl. 26, 41 (2010) (constructive acceleration claim denied because the contractor failed to show that it needed more time than the 15 days it was given to account for its portion of concurrent delay).

(d) Insistence on Scheduled Completion

The fourth element is that the employer insisted on scheduled completion alongside a threat of liquidated damages.²⁵ In the US federal contracting context, the courts also require contemporaneous notice from the contractor that it considers it has received an instruction for a constructive change under the contract – seen as necessary for the claim to fall within the specific requirements of the changes clause of the US Federal Acquisition Regulations.²⁶ Whether or not the insistence on scheduled completion alongside the threat of liquidated damages can amount to an instruction to accelerate will be an assessment that likely turns on the facts at hand and the provisions of the contract.

(e) Expending Resources to Accelerate

The final element is that the contractor pursued acceleration measures. In other words, the contractor in fact took measures to accelerate the works and incurred increased costs in doing so. This often includes using additional crews; overtime; supplemental labour; expediting materials, equipment, permits or shop drawings; delegated design; or working in unproductive or planned non-work periods such as winter or summer. Importantly, there is no requirement that the acceleration measures be successful in recovering critical delay under the theory that the contractor is forced into the situation and not choosing to accelerate of its own volition. Again, this element overlaps with demonstrating causation.

V. CONSTRUCTIVE ACCELERATION AS A CAUSE OF ACTION IN OTHER JURISDICTIONS

Advancing a constructive acceleration claim outside the US is more challenging as the doctrine of constructive acceleration has not gained traction to the knowledge of the authors.²⁷ Instead, a claim analogous to constructive acceleration needs to be shoehorned into either a breach of

²⁵ See eg, *Norair Engineering Corp v US* 229 Ct. Cl. 160; 666 F.2d 546, 549; 29 Cont. Cas. Fed (CCH) ¶ 82055 (Ct. Cl. 1981) (“An order to accelerate, to be effective, need not be couched in terms of a specific command. A request to accelerate, or even an expression of concern about lagging progress, may have the same effect as an order.”)

²⁶ *Fraser Construction Co v US* 384 F.3d 1354, 1361 (Fed. Cir. 2004); *SNC-Lavalin America Inc v Alliant Techsystems Inc* 858 F.Supp 2d 620 (W.D. Va. 2012).

²⁷ It is noted that in *Ascon Contracting Ltd v Alfred McAlpine Construction Isle of Man Ltd* (QBD (TCC)) [1999] All ER (D) 1147; 66 Con LR 119; (2000) 16 Const LJ 316, HHJ Hicks QC indicated, without using these words, that the constructive acceleration construct “*might have been arguable*”, however, that is not the way the case had been pleaded. See paragraphs 52–53.

contract cause of action²⁸ or, less likely and akin to the genesis of constructive acceleration in the US, a variation claim.

(a) Breach of Contract

Essentially, the contractor would need to demonstrate a relevant breach of contract by its counterparty, the employer. The losses that flow from that breach (which would be recoverable as damages) include the contractor's additional costs of the acceleration measures.

There are (at least) three potential grounds on which such a breach of contract claim may be based:

- (a) breach of an obligation to award an EoT to which the contractor was entitled or breach of an obligation to ensure the Engineer discharged its functions properly given the wrongful rejection of an EoT;
- (b) in causing the predicate critical delay, breach of an implied obligation to not hinder the contractor's progress or possibly breach of an express term by the employer to meet certain requirements by certain dates; or
- (c) where available under the governing law, breach of the obligation incorporated into the contract at law to perform each contractual obligation in a manner consistent with the duty of good faith.²⁹ The predicate contractual obligation in this regard may match one of the obligations in the preceding two sub-paragraphs.

Each of these grounds, however, presents some challenges.

For the *first* potential ground, the key challenge is whether the contract imposed on the Contractor's counterparty the relevant obligation that is alleged to have been breached. This is because in many international construction contracts and in certain domestic markets (eg, the UK and Australia), the typical position is that the contractor and the employer are the only parties to the construction contract, with the employer separately appointing the Engineer, which is tasked with carrying out, amongst other things, a certification function to assess EoT claims under the construction contract and, when doing so, does not act as the agent of the employer. For example, clause 3.7 of the FIDIC Red Book 2017 provides that when the engineer carries out their duties under that sub-clause "*the engineer shall act neutrally between the parties and shall not be deemed to act for the employer*".³⁰

²⁸ See generally, Wilbraham, A and Rovinescu, L, "Acceleration" in Rosenberg, K, Miller Rankin, E, Dayton, B (eds), *Dealing with Delay and Disruption on Construction Projects* (Sweet & Maxwell, 2020), Ch 6.

²⁹ For example, UAE Civil Code, article 246(1): "The contract must be performed in accordance with its contents, and in a manner consistent with the requirements of good faith."

³⁰ Fédération Internationale des Ingénieurs-Conseils (FIDIC), *Conditions of Contract for Construction* (2nd Edition, 2017) (Red Book), clause 3.7 (Emphasis added).

This is the provision under which the engineer determines EoT claims. That means that any erroneous rejection of an EoT claim is made by the engineer, which is not a party to the contract.

There may be some hope for the contractor if the employer is under an obligation (express or implied)³¹ to ensure the engineer properly discharges its function under the contract. For example, AS2124-1992 in Australia provides that the employer “*must ensure that*” the Engineer “*acts within the time prescribed by the contract ...*” and “*arrives at a reasonable measure or value of work, quantities or time*”.³² Accordingly, if the engineer does not grant a reasonable EoT (having applied the contract elements for that claim), the contractor has recourse against the employer for breach of contract.

Many standard form contracts, however, do not include an express obligation on the employer to ensure the engineer properly discharges their function, but rather limit the employer’s obligation to appointing the engineer who is to have suitable qualifications and experience. This is the case in the FIDIC suite for example.³³ That is a relatively low bar for the employer to satisfy. In such contracts, it may be difficult then to successfully argue for the implication of a more onerous obligation on the employer to ensure the engineer properly discharges its function.

Otherwise, there may be an argument that the employer has an implied obligation to not interfere with the engineer’s performance of its role as certifier.³⁴ To succeed with a claim based on breach of this obligation likely requires compelling evidence of interference by the Employer. This type of argument was favourably considered in the recent Australian case of *V601 Developments Pty Ltd v Probuild Constructions (Aust) Pty Ltd*,³⁵ where the Supreme Court of Victoria determined that the employer had breached its implied obligation to not interfere in the engineer’s assessment of the contractor’s EoT claims (along with its express obligation to not direct the engineer when the latter was carrying out its certification role).³⁶ The factual circumstances of this case were extreme – there was evidence of

³¹ There is case law in Australia where, on the respective facts there in issue, the courts accepted the employer had an implied obligation to ensure the Engineer properly performed its duty as certifier (*Perini Corporation v Commonwealth of Australia* [1969] 2 NSW 530, 545; (1969) 12 BLR 82; *Baulderstone Hornibrook Pty Ltd v Qantas Airways Ltd* [2003] FCA 174, 93: the employer was under an implied obligation to ensure the engineer “Acted independently and in accordance with its obligations, if it noticed that [the engineer] was acting, or was about to act, outside its duty.”

³² General conditions of a contract (AS2124-1992), clause 23. This is also similar in AS4300-1995.

³³ For example, Fédération Internationale des Ingénieurs-Conseils (FIDIC), *Conditions of Contract for Construction* (2nd Edition, 2017) (Red Book), clause 3.1.

³⁴ Again, there is case law in Australia where, on the facts there in issue, the courts accepted the Employer had such an implied obligation: *Perini Corporation v Commonwealth of Australia* (1969) 2 NSW 530, 543; (1969) 12 BLR 82. See also *Kane Constructions Pty Ltd v Sopov* [2005] VSC 237, 623 where the court listed out the indicia of interference with the engineer.

³⁵ *V601 Developments Pty Ltd v Probuild Constructions (Aust) Pty Ltd* [2021] VSC 849. The employer sought a stay of the judgment pending its application for leave to appeal. That stay application was refused: [2022] VSCA 77.

³⁶ *Ibid*, paragraph 402(k).

widespread “collusion and co-operation between [the employer] and the [engineer] to work in unison and deploy their strategy and tactics to manage the contractor’s claims”³⁷ and evidence of the engineer being placed under “inappropriate and considerable undue influence from [the employer] and its advisers to delay and minimise certification of [the contractor’s] contractual entitlements to time extensions and delay damages and thereby to financially advantage [the employer]”.³⁸

Unless there is either compelling evidence of interference by the employer into the engineer’s assessment, or a positive (express or implied) obligation on the employer to ensure the engineer properly discharges their certification function and the latter’s determinations are not reasonable, the contractor is unlikely to succeed in a claim analogous to constructive acceleration based on breach of contract relating to the engineer’s unfavourable assessment of the EoT claim.

The same challenges may not exist, though, if the construction contract does not contemplate the involvement of the engineer to discharge the certification function. Instead, if it is the employer’s role to assess EoT claims and it fails to properly discharge that function such that the contractor is not awarded the EoT to which it is entitled, there is likely a more streamlined avenue available for the contractor to pursue a breach of contract claim against the employer and recover its acceleration costs as damages. Claims analogous to constructive acceleration premised on this breach of contract cause of action have succeeded in Canada. For example, in *WA Stephenson Construction (Western) Ltd v Metro Canada Ltd*,³⁹ the court accepted the employer had breached the contract by insisting that EoTs would not be granted for any reasons, with damages awarded to the contractor for its additional costs arising out of acceleration efforts.

The *second* potential ground for a breach of contract claim – that by causing the predicate delay the employer either breached an implied obligation to not hinder the contractor’s progress or possibly breached an express obligation to meet certain requirements by certain dates – also has challenges. Under this legal theory, the contractor could assert that it took steps to accelerate to mitigate its prolongation costs/losses arising out of the employer’s breach. There was a partially analogous situation in the English case of *Cleveland Bridge UK Ltd v Severfield-Rowan Structures Ltd*,⁴⁰ involving a dispute between the steelwork sub-contractor and its steelwork fabricator. The latter was late in delivering steel and the steelwork sub-contractor took steps to attempt acceleration to mitigate the predicate delay (as it was

³⁷ *Ibid*, paragraph 341.

³⁸ *Ibid*, paragraph 403(p).

³⁹ *WA Stephenson Construction (Western) Ltd v Metro Canada Ltd* (BCSC) (1987) 27 CLR 113. See also *Morrison-Knudsen Co Inc et al v British Columbia Hydro and Power Authority (No 2)* (BCCA) [1978] 85 DLR (3d) 186; (1978) 7 Const LJ 227.

⁴⁰ *Cleveland Bridge UK Ltd v Severfield-Rowan Structures Ltd* (QBD (TCC)) [2012] EWHC 3652 (TCC).

exposed to liquidated damages up the line to the contractor). The steelwork sub-contractor advanced a breach of contract claim against the steelwork fabricator, claiming its additional costs of those acceleration measures (even though those measures were ultimately unsuccessful). The court accepted this claim and awarded damages to the steelwork sub-contractor for its additional costs of the acceleration measures taken in mitigation of the steelwork fabricator's delay.⁴¹ By extrapolation, it may be possible for the contractor to advance this type of breach of contract claim against the employer: that by causing critical delay, the employer breached its implied obligation not to hinder the contractor's progress and the contractor can recover as damages its reasonable costs of acceleration measures taken in mitigation of its losses arising out of that breach.

However, there tends to be a significant snag with that argument. As noted in *Ascon Contracting Ltd v Alfred McAlpine Construction Isle of Man Ltd*:⁴²

"It is difficult to see how there can be any room for the doctrine of mitigation in relation to damage suffered by reason of the employer's culpable delay in the face of express contractual machinery for dealing with the situation by extension of time and reimbursement of loss and expense."

Given most construction contracts include express EoT provisions, such a breach of contract claim would face a significant uphill battle in many common law jurisdictions, particularly England and Wales.

However, there is an oft-mentioned first instance English case where the court permitted a sub-contractor to recover its acceleration costs where it had been critically delayed by events for which the contractor was responsible, and the contractor had not awarded the EoT to which the sub-contractor was entitled. In *Motherwell Bridge Construction Ltd v Micafil Vakuumtechnik*,⁴³ the sub-contractor advanced, amongst many others, a claim against the contractor for the additional costs of introducing a night shift, day shift premium time and additional welders. The sub-contractor asserted it had "incurred these costs in attempting to comply with [the contractor's] wish for the contract to be kept to time and against the background of [the contractor's] refusal to grant appropriate extensions of time".⁴⁴ With very little reasoning, the court permitted the sub-contractor to recover its acceleration costs. The court accepted that: (a) the additional costs "were incurred by [the sub-contractor] in an attempt to recover time lost in completing the work in circumstances where [the sub-contractor] were subject to significant penalties for delay if they failed to complete the work on time";⁴⁵ and (b) the "causes" were

⁴¹ *Ibid.*

⁴² *Ascon Contracting Ltd v Alfred McAlpine Construction Isle of Man Ltd* (QBD) [1999] All ER (D) 1147; 66 Con LR 119 paragraph 56.

⁴³ *Motherwell Bridge Construction Ltd (t/a Motherwell Bridge Storage Tanks) v Micafil Vakuumtechnik and Another* (2002) CILL 1913; 81 Con LR 44.

⁴⁴ *Ibid.*, paragraph 544.

⁴⁵ *Ibid.*, paragraph 548.

the site restrictions faced by the sub-contractor and the increased scope of work, for which the contractor was responsible. The legal basis for the court's award of damages in favour of the sub-contractor appears to be mitigation of the contractor's breach of contract, but it is not apparent what term was held to have been breached – failure to award the EoT or hindering progress by causing the predicate critical delay. This lack of clear reasoning is likely why there has been no apparent judicial reliance on this case since it was decided over 20 years ago.

The *third* potential ground for a breach claim – based on good faith – is predicated on one of the relevant obligations referenced in the previous two potential breach arguments (ie, that those obligations will be performed in good faith). It therefore suffers similar challenges. However, there is at least one case where the French court accepted that an improper rejection of an EoT claim may amount to a breach of the employer's duty of good faith (and the predicate underlying obligation), the damages for which could include costs of acceleration measures.⁴⁶

(b) Variation

If the wording of the relevant contract bestows on the engineer a decision point about whether to instruct a variation for acceleration measures, there may be a novel argument that the court or arbitral tribunal ought to step into the shoes of the engineer and decide to instruct such a variation (similarly to what the court or arbitral tribunal does when assessing an EoT claim). For example, the FIDIC Red Book 1987 had language that “the engineer shall make any variations of the form, quality or quantity of the works or any part thereof that *may, in his opinion, be necessary* and for that purpose, or if *for any other reason it shall, in his opinion, be appropriate, he shall have the authority*, to instruct the contractor to do and the contractor shall [...] (f) *change any specified sequence or timing* of construction of any part of the works”.⁴⁷

There is no established body of case law to support such a claim. Whether such a claim has any chance of success depends on the wording of the contract, but it is posited that the above language may support such a claim. Commentary on this clause in the FIDIC Red Book 1987 provides some support for the proposition that the court or arbitral tribunal can review the Engineer's decisions and replace any decision with its own (which would mean the decision not to instruct a variation can be reviewed by the court or

⁴⁶ Cour Administrative d'Appel de Versailles, 3^e Chambre, 7 October 2008, 05VE00834; cf. Cour Administrative d'Appel de Marseille, 6^e Chambre-formation à 3, 29 February 2016, 15MA00758.

⁴⁷ Fédération Internationale des Ingénieurs-Conseils (FIDIC), *Conditions of Contract for Construction* (Red Book) (1987) (Emphasis added).

arbitral tribunal).⁴⁸ However, the same commentary also considers that subparagraph (f) of this clause does not permit an instruction for acceleration except to the extent of sequences or timing “*specified*” in the contract.⁴⁹ On this latter point, whether there is to be a change in any specified sequence or timing will require an analysis of the construction contract as a whole given such contracts tend to incorporate numerous documents that could address sequence and timing.

It is noted, however, that FIDIC changed the language of the variations clause in the 1999 suite (which is reiterated in the 2017 suite) to remove the engineer’s decision point regarding variations and instead simply bestows authority on the engineer to instruct a variation.⁵⁰ That makes it more difficult to assert that the court or arbitral tribunal could (and should) step into the shoes of the engineer to instruct a variation to introduce acceleration measures.

Given the above challenges with a claim analogous to constructive acceleration under English law, the Society of Construction Law Delay and Disruption Protocol states that when faced with the delay/accelerate quandary “the Contractor should first take steps to have the dispute or difference about entitlement to an EoT resolved in accordance with the contract dispute resolution provisions”.⁵¹ That *may* be practically possible for English construction projects where statutory adjudication allows the parties to have an interim decision on an EoT claim from a third party in short order.⁵² However, in the international sphere, unless there is a standing DAB, it is usually unlikely that the parties will have access to a swift interim decision from a third party on the relevant EoT claim. That leaves the contractor facing the delay/accelerate quandary with the available window for carrying out efficient acceleration measures at risk of passing by. This is why the authors consider constructive acceleration to be one of the most difficult construction claims.

⁴⁸ This is in the context of the opposite situation, where the contractor disagrees with the engineer’s decision to instruct the variation as opposed to the engineer’s failure to issue the instruction. However, the accepted underlying premise is that the court or arbitral tribunal can review the engineer’s opinion and supplant its decision with its own: Corbett, E. C., *FIDIC 4th - A Practical Legal Guide* (1991), p 296.

⁴⁹ *Ibid.*

⁵⁰ For example, Fédération Internationale des Ingénieurs-Conseils (FIDIC), *Conditions of Contract for Construction* (Red Book) (1st Edition, 1999), clause 13.1; Fédération Internationale des Ingénieurs-Conseils (FIDIC), *Conditions of Contract for Construction* (Red Book) (2nd Edition, 2017), clause 13.1.

⁵¹ Society of Construction Law, *Delay and Disruption Protocol* (2nd Edition, 2017), Core Principles, paragraph 16. That is more tempered guidance than the first edition, which provided that if the Contractor “accelerates as a result of not receiving an EoT that it considers is due to it, it is not recommended that a claim for so-called constructive acceleration be made”, Society of Construction Law, *Delay and Disruption Protocol* (1st Edition, 2002), paragraph 1.18.5.

⁵² Pursuant to the Housing Grants, Construction and Regeneration Act 1996 (UK). While a limited number of other jurisdictions have also introduced statutory adjudication, not all of them would permit adjudication on an EoT claim in isolation. For example, in Australia, the relevant legislation (introduced on a state-by-state basis) provides for adjudication of payment disputes, rather than standalone EoT claims.

VI. PROVING CAUSATION FOR A CONSTRUCTIVE ACCELERATION CLAIM

If legal entitlement for a constructive acceleration claim (or an analogous claim) was not challenging enough, the contractor next faces the task of proving causation – that the claimed acceleration costs were caused by the relevant entitling events. The precise scope of the task for the contractor in this regard depends on the contract, along with the governing law and the legal basis of the claim.

Where the contractor advances its claim based on breach of contract, there are two preliminary issues relevant to causation that need to be considered. The first concerns the burden of proof. In many civil law jurisdictions (particularly in the Middle East), where a claimant advances a breach of contract claim, once it proves the breach and the loss, causation is presumed at law and the burden of proof shifts to the defendant to demonstrate that the loss was not caused by the alleged breach.⁵³ In the context of a breach of contract claim analogous to constructive acceleration, the burden on the defendant likely is not particularly high and once it has adduced reasonable evidence of an alternative cause of the loss, the burden shifts back to the claimant again to prove its case on causation.

The second issue concerns legal causation questions around remoteness and measure of damages. Are the additional costs of acceleration measures too remote from the Employer's breach of contract such that the causal link is broken? And does the measure of damages permit the contractor to recover those additional costs? After all, where the breach allegation concerns the failure to award the EoT, how can it be said that damages in the amount of the contractor's acceleration costs would put the contractor in the position it would have been in, had the contract been performed⁵⁴ (given, if the contract had been performed as agreed, the EoT would have been awarded and there would have been no compulsion to accelerate to avoid liquidated damages and prolongation costs)? The answer to these questions will in part depend on the nature of the obligation that is alleged to have been breached by the employer.

However, two cases illustrate how these issues have been addressed in common law jurisdictions in the context of analogous constructive acceleration claims. First, is the Canadian case of *BG Checo International Ltd v British Columbia Hydro and Power Authority*,⁵⁵ where the employer was required to clear the right-of-way in preparation for transmission works to

⁵³ Al-Sanhuri, A, *Treatise of Civil Law* (2004) Vol 1, p 564; Soliman Morcos, El Wafy, *Treatise on the Civil Law*, Vol 3, pp 474–475.

⁵⁴ Under English law (and most common law jurisdictions), a plaintiff suing for breach of contract is, "so far as money can do it, to be placed in the same position, with respect to damages, as if the contract had been performed", see the 1848 decision by the Court of Exchequer, *Robinson v Harman* (Exch) 154 ER 363, p 365, paragraph 855.

⁵⁵ *BG Checo International Ltd v British Columbia Hydro and Power Authority* [1993] 1 SCR 12.

be constructed by the contractor, but failed to do so, in breach of contract, resulting in delay to the contractor. In considering the contractor's claim for its additional costs of acceleration measures to recover that delay, the majority of the Supreme Court recognised that the contractor could not recover as damages "those expenses [that] may have been so unexpected that they are too remote to be compensable for breach of contract".⁵⁶ However, on the facts of this case, the majority concluded that "the damages in contract would include not only the costs flowing directly from the improperly cleared work site, but also consequent indirect costs such as acceleration costs due to delays in construction".⁵⁷ Accordingly, the contractor succeeded in its claim for acceleration costs arising out of the employer's breach of contract.

The second case is the first instance Supreme Court of Victoria's decision in the Australian case of *V601 Developments Pty Ltd v Probuild Constructions (Aust) Pty Ltd*.⁵⁸ The court considered whether the contractor was entitled to recover its additional costs of acceleration measures where the employer was in breach of contract for interfering in the engineer's certification of the contractor's EoT claims (resulting in the engineer refusing to award the EoT to which the contractor was entitled). The court concluded that the contractor was entitled to recover those additional costs for acceleration on two bases – first, as damages flowing from the employer's breach (so, like the earlier *BG Checo International* case) and, alternatively, as necessary and reasonable costs incurred in mitigation of the employer's breach of contract.⁵⁹

Accordingly, there is judicial support for the principle that the contractor can recover as damages arising out of the employer's breach of contract the costs of acceleration measures taken to overcome the employer's delay or where the engineer unreasonably failed to award an EoT to which the contractor is entitled. Of course, each case needs to be considered on its specific facts.

Once the legal causation hurdles have been surmounted (where relevant), there remain various matters of factual causation that the contractor needs

⁵⁶ *Ibid*, 42g.

⁵⁷ *Ibid*, 42i-43a.

⁵⁸ *V601 Developments Pty Ltd v Probuild Constructions (Aust) Pty Ltd* [2021] VSC 849. The employer sought a stay of the judgment pending its application for leave to appeal. That stay application was refused: [2022] VSCA 77.

⁵⁹ *Ibid*, paragraphs 1300-1307. The Supreme Court of Victoria also referred back to the earlier decision of *Perini Corporation v Commonwealth of Australia* [1969] 2 NSW 530, 542; (1969) 12 BLR 82, where the New South Wales Supreme Court disagreed with the argument (advanced against the implication of a term) that if "there had been a wrongful, in the sense of unauthorised, exercise of powers by a certifier with the knowledge of the employer of the certifier, the employer being the other party to the contract pursuant to which the certifier was appointed, the only right of the contractor was that he was entitled to disregard the provisions of the agreement with respect to time and either to sue for the price or resist a claim for liquidated damages by way of penalty (citation omitted)": see *V601 Developments Pty Ltd v Probuild Constructions (Aust) Pty Ltd* [2021] VSC 849, paragraph 1252.

to consider, whether the claim is based on the US doctrine of constructive acceleration or analogous breach of contract by the employer:

- (a) that the predicate critical delay was caused by an excusable event under the contract;
- (b) the extent of that critical delay;
- (c) that the contractor's plan was reasonable to achieve the time for completion but for the excusable delay event;
- (d) that acceleration measures were implemented; and
- (e) that the costs/losses claimed were a result of the excusable event.

Some of these elements overlap with the entitlement elements addressed above.

(a) The Predicate Critical Delay was Caused by an Excusable Event under the Contract

This is one of the elements that overlaps with a demonstration of entitlement. The contractor must prove that the predicate critical delay is excusable under the contract. This does not, however, mean that it must be compensable delay. To demonstrate that the critical delay was caused by the relevant excusable event, the contractor should perform a critical path method schedule delay analysis.

While the excusable delay is ongoing, this typically entails what is commonly referred to as a prospective analysis, with the time impact analysis method being recommended by the Society of Construction Law Delay and Disruption Protocol in this situation.⁶⁰ A prospective time impact analysis involves using the critical path method schedule update just prior to the delay impact. This is most commonly the regular monthly schedule update prior to the delay impact and should be the most recent prior accepted schedule. However, if schedules are rejected on the project, particularly for reasons such as the works are behind schedule and not for technical reasons such as flaws in logic, the last submitted schedule update is typically used as opposed to the last approved schedule which may be long outdated. The contractor should then prepare a fragmentary network, often abbreviated as "*fragnet*." A fragnet consists of a sequence of activities that reflect the best-known estimate at the time it is created for how long the excusable delay event will extend. The fragnet is then inserted logically into the schedule to determine the change to the scheduled completion date.

The prospective time impact analysis method is typically only used while the predicate delay is ongoing, but before it is finished. By contrast, after the excusable delay has ceased, the actual period of the delay may be

⁶⁰ Society of Construction Law, *Delay and Disruption Protocol* (2nd Edition, 2017), Part B, paragraphs 4.2–4.12.

determined using other methods appropriate to the EoT claim in issue. One common way to do this in the US is by comparing the scheduled completion date before the start of the excusable delay versus the scheduled completion date after the excusable delay is no longer on the critical path. This is a variation of the time impact analysis method, sometimes called a retrospective time impact analysis or a time slice windows analysis method. However, if the acceleration starts prior to the excusable delay finishing, the schedule update issued after the delay has ceased may not show the impact of the delay – because the acceleration may already have been implemented. This is one instance where a prospective analysis (impacted as-planned or prospective time impact analysis methods) in a retrospective context may be preferable. For example, in the 2021 US case of *DA Nolt Inc v Philadelphia Municipal Authority*, an expert's impacted as-planned analysis was accepted over another expert's windows analysis where the delay took place right after the baseline schedule was agreed, such that every schedule update was a recovery schedule.⁶¹

(b) The Extent of that Predicate Critical Delay

The contractor should identify in its schedule delay analysis the specific number of days of critical path delay caused by the excusable delay event.

(c) That the Contractor's Plan was Reasonable to Achieve the Time for Completion but for the Excusable Delay Event

To recover for constructive acceleration, the contractor's original plan in terms of sequence, resource allocation and work methods should be reasonable such that it would have permitted the contractor to complete on time but for the predicate excusable delay event(s). Normally, particularly in North America, the view is that there is a rebuttable presumption of correctness in the contemporaneous critical path method schedules prepared and submitted during the works.⁶² In other words, the burden of proof is on the party claiming to show the contemporaneous schedule update was incorrect, rather than making it incumbent upon the contractor or its schedule delay expert

⁶¹ *DA Nolt Inc v Philadelphia Municipal Authority* No CV 18-4997, 2021 WL 6049829 at *15 (E.D. Pa. 21 December 2021), dismissed sub nom. *DA Nolt Inc v Philadelphia Municipal Authority* No 22-1120, 2022 WL 18457428 (3rd Cir 17 October 2022).

⁶² See eg, *Appeal of Santa Fe Inc* VABCA No 2168, 87-3 BCA (CCH) paragraph 20,104 (25 August 1987) ("There is a rebuttable presumption of correctness attached to CPM's upon which the parties have previously mutually agreed. [...] To put it another way, in the absence of compelling evidence of actual errors in the CPM's, we will let the parties 'live or die' by the CPM applicable to the relevant time frames.").

to show that the contractor's schedule was correct and reasonable.⁶³ However, this varies slightly from the Society of Construction Law's Delay and Disruption Protocol, which shifts the responsibility, in the example case of a time slice analysis, "to verify (or develop) a reliable series of contemporaneously updated baseline programmes or revised contemporaneous programmes reflecting an accurate status of the works" to the person performing the schedule delay analysis.⁶⁴ In either case, if the employer asserts that the contractor's schedules were not reasonable, realistic, or achievable, it would benefit the contractor to show that its plan was indeed reasonable, realistic, and achievable.

(d) That Acceleration Measures were Implemented

The fourth element again overlaps with entitlement: proving that acceleration measures were in fact implemented. In doing so, the contractor needs to show that it added resources, performed overtime, or expended costs to expedite progress on the critical path to recover delay. The contractor should show that these acceleration measures were over and above its original plan. For instance, if the contractor's original plan included planned overtime, added overtime would constitute acceleration only to the extent it exceeded the ordinary planned amount of overtime. At the same time, the overtime needs to be implemented to recover the excusable delay as opposed to any separate delay or problems for which the contractor is responsible.

(e) That the Costs/Losses Claimed were a Result of the Excusable Event

The contractor should tie the claimed costs/losses to the legal basis of entitlement. For example, if the contractor claims productivity losses as a result of excessive overtime due to constructive acceleration, it should still prove the cause-and-effect relationship between the overtime to accelerate and resultant additional costs. The preferred method for proving loss of productivity losses is a properly implemented measured mile analysis,⁶⁵ where, in a constructive acceleration context, the productivity of the

⁶³ See eg. American Society of Civil Engineers (ASCE), *Schedule Delay Analysis 67-17* (2017), Guideline 10.1 ("The schedules should be presumed correct as they were used during the project, unless otherwise shown to be inaccurate").

⁶⁴ Society of Construction Law, *Delay and Disruption Protocol* (2nd Edition, 2017), Part B, paragraph 11.6(c); See also paragraph 11.6(b) in the context of a time impact analysis method where the analyst using the schedule updates "needs to verify that the baseline programme's historical components reflect the actual progress of the works and its future sequences and durations for the works are reasonable, realistic and achievable and properly logically linked within the software.")

⁶⁵ American Society of Civil Engineers (ASCE), *Identifying, Quantifying, and Proving Loss of Productivity*, ANSI/ASCE/CI 71-21, section 5.1, p 17; Society of Construction Law, *Delay and Disruption Protocol* (2nd Edition, 2017), Part B, paragraph 18.25.

contractor prior to the acceleration may be compared to the productivity after the acceleration measures are implemented.

The contractor should also show that its acceleration was reasonable. At the same time, because the contractor is forced into the position of constructive acceleration and not performing by choice, some inefficiency would normally be expected. As such, where the contractor is advancing a claim for loss of productivity arising out of constructive acceleration measures, at least in the US, the burden of proving this requirement of reasonableness might shift to the employer to show that the contractor's acceleration measures were *unreasonable*, rather than incumbent upon the contractor to show its efforts were reasonable.

VII. CHECKLIST TO ASSIST WITH CONSTRUCTIVE ACCELERATION CLAIM

In this Section, we set out/summarise guidance (some of which are requirements) of what a prudent contractor might do when faced with the delay/accelerate quandary and the prospect of being forced to accelerate, to put itself in the best position for subsequently advancing a constructive acceleration or analogous claim (subject to any additional requirements in the contract for perfecting claims and depending on the governing law):

Prior to Accelerating

- (a) Ensure adequate project records (particularly a resource loaded baseline programme and status updates) are kept and maintained: This is relevant for two reasons. First, inherent in a constructive acceleration claim is a dispute over who is responsible for the predicate critical delay. It is therefore necessary for the contractor to ensure it maintains project records to allow it to quickly demonstrate critical delay caused by an excusable delay event. Secondly, in proving causation, the contractor will need to demonstrate that it did in fact attempt reasonable acceleration. That requires the contractor to show that: (i) its original plan (including resource allocation) was reasonable to complete on time but for the predicate excusable delay event(s); (ii) it did something different (at additional cost) to that original plan in implementing acceleration measures; and (iii) those measures were reasonable for recovering the excusable critical delay ie, its measures were intended to permit efficient acceleration.
- (b) Ensure compliance with notice and claim requirements: It is important for the contractor to meet the time and content requirements for all notice and EoT claim provisions in respect of

the predicate excusable delay event(s). That should include, as part of the EoT claim, a comprehensive delay analysis demonstrating critical delay and the cause(s) and a request for a specific number of days of excusable delay.

- (c) Consider mitigation measures: Contracts sometimes impose on the contractor an obligation to mitigate any delay (which is different to mitigation at law in the context of a damages claim). In this contractual context, the authors understand that what is often meant is that the contractor take reasonable and sensible steps that are not costly to seek to recover delay such as reasonable resequencing of the works (as distinct from costly acceleration measures, such as adding labour gangs or using more expensive air freight). Where there is such a contractual mitigation obligation, the contractor ought to consider what mitigation measures might be available, implement any such measures and inform the engineer/employer that it has done so, with the forecast effect on the programme (which presumably is not sufficient to recover the predicate critical delay).
- (d) Wait for a determination on the EoT claims: The contractor ought to wait until the Engineer/Employer has responded to the EoT claim (or the duration for such determinations has expired, whichever is the earlier). In addition, on the assumption that the EoT claim is rejected, in whole or part (which is inherent in a constructive acceleration claim), and if contemplated in the contract, the contractor ought to issue a timely and compliant notice of dissatisfaction with the engineer's determination (eg, as contemplated in clause 3.7.5 of the FIDIC Red Book 2017).
- (e) Give notice of intended acceleration: The contractor ought to notify the Engineer/Employer that, given the (in the contractor's view) wrongful rejection of the EoT claim for the predicate critical delay, which has the effect of the employer insisting on the original time for completion, that the contractor considers it has been implicitly instructed to accelerate. In some jurisdictions notice is required, and in those it is not it may still be helpful in pursuing a claim. Such notice ought to comply with the contractual notice requirement for the claim for additional payment relating to constructive acceleration (which is different to the EoT claim). In doing so, it is desirable for the contractor to set out in as much detail as possible its proposed acceleration measures, the anticipated cost, and the intended effect of those measures on the programme.
- (f) Seek to agree on the methods of acceleration: The contractor ought to seek to agree or obtain the input of the engineer/employer on the proposed acceleration measures. Doing so attempts to head

off any subsequent argument by the employer that the chosen acceleration measures were unreasonable.

- (g) Ensure compliance with claim requirements: As indicated above, the constructive acceleration claim is separate and distinct from the EoT claim that has been rejected. The contractor therefore needs to ensure it complies with the relevant contractual requirements for submitting its claim for additional payment arising out of constructive acceleration.

During/After its Acceleration Measures

- (a) Maintain progress records during the acceleration period: These records are important for both demonstrating acceleration measures have been implemented and the reasonableness of those measures.
- (b) Assess delay recovery and reassess: Whilst the acceleration measures need not be effective to succeed in a constructive acceleration or analogous claim, it is sensible to assess how acceleration measures are progressing. Where delay recovery is minimal, or not being achieved, the contractor should consider whether it might attempt different acceleration measures. Again, doing so may pre-empt any subsequent debate that the measures were not reasonable.
- (c) Maintain separate cost codes and records: The costs of acceleration to be claimed from the employer (as distinct from costs relating to the original plan or voluntary acceleration efforts) need to be isolated. For example, payroll records, equipment charges, sub-contractor costs, freight costs and any others incurred specifically in accelerating for excusable delays should be demonstrable. Segregating these costs also means they can be more easily assessed for reasonableness. It is also helpful to set up separate cost codes that track those claimable acceleration costs and to monitor that those cost codes are actually being used by the project team. It is easier to ensure compliance during the acceleration measures than to try to identify the relevant costs after-the-fact.
- (d) Regularly update the engineer/employer: It is helpful for the contractor to update the engineer/employer on the steps it is taking to accelerate, and the costs being incurred. While the parties may disagree as to who is responsible for those costs, by giving regular updates, the contractor is allowing the engineer/employer the contemporaneous opportunity to comment on the reasonableness of the measures being taken.

VIII. PERSPECTIVE OF AN INTERNATIONAL ARBITRAL TRIBUNAL WHEN FACED WITH CONSTRUCTIVE ACCELERATION CLAIMS⁶⁶

It is unwise for arbitrators and judges to express views which might later be said to establish issue bias on legal theories or approaches to the conduct of cases. The comments in this section do not express any such views. To the contrary they represent observations from the experience as an arbitrator, and a judge, on the ventilation in proceedings of claims for acceleration generally, and constructive acceleration in particular.

Although merits will not be a substitute for a legal basis for a claim it is not desirable to advance a claim for which there may be a legal basis without the merits of the claim being clearly established.

A common issue associated with merits in the context of acceleration is convincing factual proof of actual acceleration. To put it neutrally, this is easier said than done.

An obvious but related issue is establishing the cost of actual acceleration be it direct, or indirect (such as loss of productivity of labour) cost.

There is a necessary interrelationship between expert evidence on progress, and expert quantum evidence, in this context, but the value of site and management evidence of motivation and project management decision making can never be overestimated. The same can be said of the value of site supervision and direct labour evidence going to what changed from that originally intended, and the impact of those changes.

These are factual “merit” issues of considerable importance.

The *ex post facto* construction by expert evidence of an account of acceleration is no substitute for a convincing factual case of what was happening at the time.

Another way of putting this is that reconstruction of acceleration, unrealised at the time, can prove unconvincing.

It is for these reasons that contemporaneous records can prove valuable whether the claim be one for compensable acceleration or one for contested constructive acceleration.

I leave readers to consider the very interesting discussions in the other parts of the paper of the complex issues arising specifically with respect to constructive acceleration.

⁶⁶ As indicated earlier, this section of the paper has been prepared by Professor Doug Jones AO (www.dougjones.info) who for the reasons indicated in the section has not authored, nor expressed any views on, the other sections of this paper.

IX. INNOVATIVE WAYS OF DEALING WITH THE DELAY/ ACCELERATE QUANDARY

Whilst acceleration can permit the recovery of critical delay, disagreement between parties as to culpability for that critical delay often precludes accelerating when it would otherwise be efficient to do so. In other words, parties find difficulty in agreeing to what may be objectively beneficial for the project when they are entrenched in their views as to culpability for the delay. To minimise the loss of efficient acceleration opportunities often brought about by the delay/accelerate quandary, parties need to find an innovative way to work together.

One approach may be the agreement, at the time of contracting, of a mechanism that permits acceleration whilst leaving liability for the costs to be determined at a later date – where critical delay occurs and the parties disagree as to the cause(s), or responsibility for the cause(s), the parties can agree to accelerate the works where it is economically efficient to do so, whilst leaving ultimate liability for acceleration costs to be determined later. To be successful, such a mechanism may need to consider:

- (a) The importance of information sharing between the parties: No party to a project has a full view of what has taken place on site, and what the costs/loss of project critical delay may be (as a benchmark against which the costs of proposed acceleration measures can be compared). For example, the contractor may have a better understanding of what has taken place on site, its likely prolongation costs, as well as the potential costs of acceleration. In contrast, the employer knows its costs/losses associated with critical delay, which can include financing costs, or upstream costs such as under offtake agreements on an energy project. Determining whether acceleration measures are efficient therefore requires a degree of transparency between the parties.
- (b) Allocation of costs: If acceleration is to take place, a decision needs to be made on who will in the first instance bear the costs of acceleration. Whilst ultimately an issue of risk allocation, and therefore something that can be priced into a contract, efficient acceleration is most likely capable of being achieved if both parties share in the upfront costs of acceleration (eg, 50/50 split). Ultimate responsibility for costs can of course be deferred to a later date. To incentivise the contractor to not pursue unmeritorious EoT/acceleration claims and the engineer/employer not to reject meritorious EoT/acceleration claims, the contract could include provision for the payment of enhanced interest (or, where legally permitted, a penalty uplift) on top of the reimbursement of early acceleration cost contributions by the counterparty where ultimate liability is found against that first party.

- (c) The timeframe within which parties need to act: Acceleration can be efficient if undertaken at the right time, being when the costs of acceleration are less than the costs/losses associated with critical delay. If the acceleration costs are greater than the anticipated critical delay costs/losses, the window has been missed and, from a purely economic perspective, late completion is the cheapest outcome. As such, a contractual acceleration mechanism ought to stipulate a period within which the relevant discussions are to take place and a decision is to be reached on acceleration (albeit it is accepted that the window for efficient acceleration in any individual case is difficult to forecast at the time of contracting). Decisions go beyond simply deciding to accelerate but include, for example, the acceleration measures and the duration of those measures.
- (d) Deciding to accelerate: Contemplating acceleration and sharing information is not enough to ensure efficient acceleration takes place and ultimately a decision to accelerate is needed. Given liability for predicate critical delays is often contested, expecting parties to come to a joint decision to accelerate – even if in the interests of the project as a whole – can be wishful thinking. As such, providing for an independent party to make such a determination – to which the parties are temporarily bound – is one avenue to address this issue. That could be achieved through broadening the powers of a standing DAB, or by providing for the appointment of a third party (whose identity is agreed at the outset of the project) to make a swift but preliminary finding.
- (e) Responsibility for failure to recover delay: The parties ought to turn their mind at the time of contracting to who bears responsibility if the acceleration measures are not successful in recovering critical delay. It is not uncommon for acceleration measures to be implemented at additional cost, only for the predicate critical delays to remain unrecovered. In that situation, as between the contractor and the employer, which party will be responsible for the costs/losses of the unrecovered critical delay (in addition to the costs of the acceleration measures)?
- (f) How to finally resolve liability: Determining final liability for acceleration costs does not require inventing something new but can rely on the existing dispute resolution provisions.

A more streamlined approach was incorporated into Australian standard form contract PC-1 1998.⁶⁷ Under this contract, where the contractor submits an EoT claim, the engineer can instruct the contractor to accelerate

⁶⁷ Property Council of Australia, PC-1 (1998) Project Contract. This standard form contract is not widely used in Australia.

to recover the delay claimed.⁶⁸ Then, if the predicate critical delay was excusable, the contractor is entitled to recover its reasonable costs plus profit of those acceleration measures.⁶⁹ The contractor retains the risk that those acceleration measures are not successful given the employer's right to liquidated damages remains intact for any delay to completion.⁷⁰

Whilst introducing more detailed acceleration provisions to address the delay/accelerate quandary in contracts before the issue arises represents the ideal scenario, it is by no means the only option to secure efficient acceleration. Parties can agree during the course of the works to accelerate where that is in the interests of the project and leave liability for determination at a later date. The difficulty in doing so, however, is that once the predicate critical delay is encountered parties often strongly contest liability for that delay and are not prepared to act with the sufficient speed to agree on acceleration measures and how liability for such costs is to be determined in the long run.

In contrast to the above, many standard form contracts include provisions permitting the engineer/employer to request an acceleration proposal from the contractor without dealing with the situation where responsibility for the predicate critical delay (and hence acceleration measures) is contested. For example, the JCT Design and Build Contract 2016 provides an acceleration clause in Supplemental Provision 4.⁷¹ In short, this allows the employer to invite an "*Acceleration Quotation*" should it want to explore the possibility of achieving practical completion before the completion date for the Works. The contractor is required to either provide an Acceleration Quotation or explain why it would be impractical to achieve early practical completion. The Acceleration Quotation sets out the time that could be saved, the cost and additional resources, and if the employer wants to accept the quotation it must issue a "*Confirmed Acceptance*" within the stipulated time. This type of clause does not greatly aid the contractor when faced with the delay/accelerate quandary but permits the contractor to add colour to its constructive acceleration (or analogous) claim by pointing to the existence of this clause, which the contractor would say the employer could have used, but it unreasonably failed to do so.

⁶⁸ Property Council of Australia, PC-1 (1998) Project Contract, clause 10.7(d). See also Capelli, S, "The Property Council of Australia Standard Form Contract – A User's Guide" (1999) Vol 66 *Australian Construction Law Newsletter*, p 22.

⁶⁹ Property Council of Australia, PC-1 (1998) Project Contract, clause 10.15.

⁷⁰ Property Council of Australia, PC-1 (1998) Project Contract, clause 10.16.

⁷¹ Joint Contracts Tribunal, *Design and Build Contract (DB)* (2016), Schedule 2, Part 2, Supplemental Provision 4. See also, Fédération Internationale des Ingénieurs-Conseils (FIDIC), *Conditions of Contract for Construction* (Red Book) (2nd Edition, 2017), clause 8.7.

X. CONCLUSION

When the contractor faces the delay/accelerate quandary, it usually leads to a more uneconomical outcome for the project. That is because often the parties are fighting from entrenched positions on liability for the predicate critical delay and not focused on ensuring efficient acceleration measures are timely implemented. The hope is that better awareness and analysis around the delay/accelerate quandary will allow project participants to both constructively engage at optimal times to efficiently recover critical delays and objectively deal with claims in accordance with the agreed risk allocation. That might trigger the winds of change and allow the contractor pilot to safely land the project, with the approval of the engineer/employer air traffic control, without too much turbulence along the way.