# Causation is king: NSW Supreme Court delivers hammer blow to programming analysis for delay claims

By Sean Kelly and David Elston

The mere presence or otherwise of a delay analysis method in the Society of Construction Law (UK) Delay and Disruption Protocol (2nd Edition) should not determine its appropriateness for any given case.

Delay and disruption claims are commonplace in construction and infrastructure disputes. They are, however, generally difficult (and time-intensive) to prove given the highly technical and factually complex scenarios they often involve. Parties often rely upon evidence of expert programmers who provide a delay analysis of the project to prove the overall delay effects of a qualifying cause of delay.

The analysis is commonly undertaken on the basis of one of the methods set out in the Society of Construction Law (UK) Delay and Disruption Protocol (2nd Edition). However, the recent judgment by Justice Hammerschlag in the New South Wales Supreme Court decision of White Constructions Pty Ltd v PBS Holdings Pty Ltd [2019] NSWSC 1166 is a reminder that the opinion of an expert programmer alone (whether based on one of the methods in the Protocol or otherwise) is no substitute for direct evidence of the actual cause and impact of the claimed delay.

The key question for the court in determining such a claim is to ask whether, upon a close examination of the actual evidence, the claimant has proved, on the balance of probabilities, that the claimed delay event caused project delay and, if so, by how much.

### Project background

White Constructions was the developer of a 100 lot subdivision on the south coast of New South Wales. White engaged SWC (a water servicing coordinator) and IWS (a sewer designer) to design a sewerage solution that complied with NSW regulations. The initial design was not approved by Sydney Water. Approval was a precondition for the registration by the Land Titles Office of the subdivision. A subsequently updated design was later accepted.

Completion of the project was delayed by approximately 7.5 months and White sued SWC and IWS alleging that they failed to prepare a satisfactory sewer design within a reasonable time and that failure caused delay to the whole project. White claimed approximately \$1.93 million as damages in the form of alleged increased construction costs, paid out to the contractor as a result of the alleged delays and design changes.

The claim was for common law delay damages for breach of contract. It required White to prove that the project would have been completed by 15 July 2016 but for the sewerage design issues. Therefore, the causation element was at the forefront of the dispute, and the parties' respective delay experts were expected to play a crucial role.

## Delay experts and programming methods

Both parties relied upon evidence from expert civil engineer programmers in relation to the extent and cause of delay to completion of the project. Justice Hammerschlag recognised that the expert reports were complex and that "to the unschooled, they are impenetrable".



White's expert used the "as-planned versus as-built windows analysis" method in his report. In contrast, SWC/IWS's expert used the "collapsed as-built/but for analysis" method. Each method is referred to in the Protocol, and on this occasion they resulted in profoundly different conclusions.

The South Australian case of Alstom Ltd v Yokogawa Pty Ltd (no 7) [2012] SASC 49, which gave weight to whether or not a method was referred to in the Protocol, was considered. However, Justice Hammerschlag rejected the notion that the presence or otherwise of a delay method in the Protocol should be determinative of whether the method is appropriate in any given circumstances. Instead, it was held that "neither method [of delay analysis adopted by the experts for the parties] is appropriate to be adopted in this case".

Based upon general legal principles, the onus was on White to prove that the project was delayed by the sewerage design issues and that it suffered loss as a result of that delay. White failed to do so on the balance of probabilities. Central to this finding was that White's expert evidence "assumes causation rather than identifies actual evidence of it". That is, White's expert evidence was insufficient to prove the causal link between the sewerage design issues and the delay to the project overall.

# Insufficient evidence of consequences of delay

To resolve the dispute, a close examination of the actual facts happening "on the ground" was required to determine if the sewerage re-design caused the overall delay, and if so, by how much. In effect, this meant that the Court should apply "the common law common sense approach to causation".

White had relied upon an affidavit by a site foreman who gave evidence of "delayed, piecemeal and disrupted" works in an attempt to prove the underlying assumptions in its expert's programming analysis. However, this evidence was too general and it was found that it did not provide sufficient proof of the cause of the overall delay, including by reference to relationships between the activities in the construction program.

Separately, a comprehensive site diary was the primary source of evidence as to what was happening "on the ground". However, even the site diary was insufficient. Whilst there were repeated references to delays in the sewer design being finalised and approved, the diary did not "identify the activities, if any, which were being adversely affected by the wait". As a result the diary did not "enable a finding of particular consequences" caused by the sewerage design issues.

Consequently, White failed to provide evidence sufficient to prove its claims and they were dismissed.

# Important takeaways and practical tips

An important takeaway from this case is that the mere presence or otherwise of a delay analysis method in the Protocol should not determine its appropriateness for any given case, Indeed, the Protocol itself makes it clear that the listed delay analysis methods are for guidance only and the most appropriate analysis should be determined based on the "nature, scale and level of complexity of a particular project and the circumstances in which the issue is being considered". As a contrary belief had developed in the industry, this is a welcome judgment.

There are also significant practical implications for parties to a dispute involving delay analysis. Justice Hammerschlag used the phrase "close attention to the actual facts rather than opinions about what the evidence establishes" when describing the correct approach to take in determining a delay claim. The need to prove the particular consequences of delay events was emphasised. Expert programming analysis by itself is insufficient. Factual evidence that establishes the delay, including the assumptions that delay experts rely upon, is essential. This is likely to be an onerous, costly and time consuming undertaking whether for a relatively small residential subdivision or a large, complex infrastructure project.

There are practical steps that project participants can take to collect and maintain evidence during

the delivery phase of a project to put themselves in a position to make and prove, or to assess and reject, a delay claim. In addition to preparing current construction programs updated on a periodic basis, parties can:

- prepare and maintain registers that record events relevant to potential delay claims;
- update site diary precedents so that they require the identification of delay events and affected successor activities; and
- If project economics permit, engage construction surveillance officers to record delivery phase progress and delay and disruption events (including by written notes and time-stamped photographs).

Finally, it should be noted that the decision relates to a claim for delay damages for breach of contract, assessed by reference to common law principles. Extension of time, delay costs and disruption claims that are made under sophisticated construction contracts will be influenced by the precise language used in the relevant provisions, including perhaps the degree of causation and the kind of proof required.

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