The Concurrency Conundrum

Presented by Scott Lowe, PE, Principal, Trauner Consulting Services, Inc.
“The identification and quantification of concurrent delay is arguably the most contentious technical subject in forensic schedule analysis. Accordingly, it is important that all sides, if possible, agree on either the **Literal or Functional theory** (See Subsection 4.2.D.1.) employed in the identification and quantification of concurrent delay.”
108.06 Determining a Time Extension to the Completion Date and Payment for Excusable Delays...

F. Concurrent Delays. Concurrent delays are separate critical delays that occur at the same time. When a noncompensable delay is concurrent with a compensable delay, the Contractor is entitled to additional time but not entitled to additional compensation.
1806 Determination and Extension of Contract Time

1806.2 Types of Delays

D Concurrent Delays

Concurrent delays are independent sources of delay that occur at the same time. When a non-excusable delay is concurrent with an excusable delay, the Contractor is not entitled to an extension of Contract Time for the period the non-excusable delay is concurrent with the excusable delay. When a non-compensable delay is concurrent with a compensable delay, the Contractor is entitled to an extension of Contract Time, but not entitled to compensation for the period the non-compensable delay is concurrent with the compensable delay.
E. Concurrent Delays

Concurrent delays are independent sources of critical delay that occur at the same time. To be concurrent, delays must be literally concurrent. When a non-excusable delay is concurrent with an excusable delay, the contractor is not entitled to an extension of the contract time for the period the non-excusable delay is concurrent with the excusable delay. When an excusable, non-compensable delay is concurrent with a compensable delay, the contractor is entitled to an extension of the contract time, but not entitled to compensation for the period the non-compensable delay is concurrent with the compensable delay.
For concurrency to exist, there must be:

- Two or more delays that are unrelated, independent, and would have delayed the project even if the other delay did not exist.
- Two or more delays that are the contractual responsibility of different parties, but one may be a force majeure event.
- The delays must be involuntary.
- The delayed work must be substantial and not easily curable.
The definitions of the Literal and Functional theories are as follows:

“Under the Literal Theory, the delays have to be literally concurrent in time, as in happening at the same time. In contrast, under the Functional Theory, the delays need to be occurring within the same analysis period.”
Of the two theories, the functional theory is the more liberal approach to identifying and quantifying concurrency since the delays need only occur within the same measurement period. While in the literal theory delays require same-time occurrence.

The assumption made by the functional theory practitioner is that most delays have the potential for becoming critical once float on the path on which the delayed work resides has been consumed.
Literal Versus Functional Concurrency

- Concurrent delays as defined under the Literal Theory are rare.
- Concurrent delays as defined under the Functional Theory would occur more often as the delays need only occur during the same time period.
Graphically, the Literal and Functional theories look like this:

**Literal Concurrency Theory:**

Delay Concurrent from Day 21 through Day 25
Graphically, the Literal and Functional theories look like this:

**Functional Concurrency Theory:**

Both Paths A & B, finished 10 days later than originally planned on Day 50.
AACEI says that concurrent delays must be “unrelated, independent, and would have delayed the project even if the other delay did not exist.”

It also says that they must be involuntary.

ODOT’s spec says that concurrent delays must be “separate.”

MnDOT’s spec says they must be “independent.”

DelDOT’s spec also requires independence.
When the delays are not independent, then the concept of “primacy of delay” becomes more important. The concept of primacy of delay says that the delay that occurs first determines excusability and compensability.
Graphically, the Literal and Functional theories look like this:

Functional Concurrency Theory:

Both Paths A & B, finished 10 days later than originally planned on Day 50.
Pacing

- Pacing occurs when one delay allows another delay to occur.
- Pacing occurs when delays are not independent.
- Pacing delays are voluntary.
- The concept of pacing is embodied in the statement that “A contractor doesn’t have the obligation to hurry up and wait.”
Graphically, the Literal and Functional theories look like this:

**Functional Concurrency Theory:**

Both Paths A & B, finished 10 days later than originally planned on Day 50.
Literal or Functional?

- ODOT says that “Concurrent delays are separate critical delays that occur at the same time.”
- MnDOT says that “Concurrent delays are independent sources of delay that occur at the same time.”
- DelDOT says “Concurrent delays are independent sources of critical delay that occur at the same time,” but adds that “To be concurrent, delays must be literally concurrent.”
What Does “At the Same Time” Mean?

- Does it mean literally at the exact same time? (Literal concurrent delay?)

  OR

- Does it mean during the same time period? (Functional concurrent delay?)
Excusability and Compensability

- ODOT’s spec says that “When a noncompensable delay is concurrent with a compensable delay, the Contractor is entitled to additional time but not entitled to additional compensation.”

- MnDOT and DelDOT both say that “When a non-excusable delay is concurrent with an excusable delay, the Contractor is not entitled to an extension of Contract Time for the period the non-excusable delay is concurrent with the excusable delay. When a non-compensable delay is concurrent with a compensable delay, the Contractor is entitled to an extension of Contract Time, but not entitled to compensation for the period the non-compensable delay is concurrent with the compensable delay.”
“4.6 In situations where the completion date is adjusted properly for change orders and the contractor is behind schedule, owner delays that occur thereafter on a separate path may have a mitigating effect on assessment of damages.”
ASCE’s SDA’s Definition of Offsetting Delay

“In certain situations when the current, as adjusted contract completion date has passed or the current, updated schedule is projecting a completion date that is later than the contract completion date, owner-responsible delays occurring thereafter may mitigate the assessment of liquidated damages. This type of delay is referred to as “offsetting delay,” recognizing that an owner-caused delay may result in recognizing a noncompensable time extension to offset all or a portion of any potential liquidated damages.”
The critical path is forecasting a late completion of 60 calendar days.

It is undisputed that the 60-CD project delay is the contractor’s responsibility.
Offsetting Delay Depicted Graphically

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Critical path
Non-critical path
As-built

Contract Completion Date

TF = -60
TF = -30

Contractor delay
Owner delay

Sch 1 Data Date
Sch 2 Data Date

The Concurrency Conundrum
The owner delayed a non-critical work path 30 CDs.

Offsetting Delay advocates believe the contractor is entitled to a 30-CD Time Extension for a *non-critical path delay* to offset the owner’s assessment of LDs.
In defense of the offsetting delay concept, its proponents argue that the insertion of the word “may” in the title of Guideline 4.6 and in the guideline’s first sentence places a restriction on the ability of someone to argue that an owner must allow for offsetting delays and reduce the assessment of liquidated damages.
The word “may” conveys exactly the opposite message.

The online Merriam-Webster dictionary defines the word “may” as “1a: have the ability to; 1b: have permission to, be free to…"

The use of the term “may” places no limit on the application of an offsetting delay; rather it provides unrestricted permission.

The word “may” as used in the Standard can and will be interpreted as permission to rely on the offsetting delay concept to reduce the assessment of liquidated damages…
Offsetting Delay and Fairness

- Based on discussions with proponents of the offsetting delay concept, they believe that it is unfair for owners to fully assess liquidated damages when an owner’s non-critical-work path delay creates negative float.

- This perceived unfairness is based on the presumption that this owner-caused, non-critical-path delay could potentially prevent the contractor from fully recovering its delay and completing the project on time should it try to do so.
Offsetting Delay and Fairness

For example, returning to Figure 2, offsetting delay proponents argue that the contractor should be entitled to a 30-day time extension that would offset or alleviate the owner’s assessment of liquidated damages for 30 of the 60 days that the project was delayed. They believe that this 30-day extension is justified because the owner’s 30-day, non-critical delay would prevent the contractor from fully recovering all 60 days of contractor-caused critical delay, if the contractor decided to attempt to recover its delay.
Offsetting Delay and Fairness

However, if the tables are turned, the same rules don’t apply to the contractor that apply to the owner.
Offsetting Delay and Fairness

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- **Data Date**
- **Contract Completion Date**

- **Critical path**
- **Non-critical path**
- **As-built**

- **TF = -60**
- **Owner critical path delay**
- **TF = -30**

**Contractor non-critical delay**
If this situation were to occur on a project, offsetting delay proponents vehemently assert that the contractor’s 30-day non-critical-path delay would not offset or negate 30 of the 60 days of delay-related damages (assuming that the owner’s delay is compensable) that the owner would owe the contractor for the owner’s critical path delay.

This lack of reciprocity or mutual benefit from the offsetting delay concept is inherently unfair and biased to favor the contractor.
The offsetting delay concept doesn’t require the contractor to actually mitigate its critical project delay in order to establish its entitlement to a time extension and relieve it of responsibility for liquidated damages. The only requirement identified by the Standard is the presence of an offsetting delay. The contractor need not make any attempt to recover its delays to be entitled to a reduction in the assessment of liquidated damages.

If a contractor could delay the project, yet point to an owner-caused, non-critical-path delay to offset or relieve it from being assessed liquidated damages, what incentive would a contractor have to mitigate its own delay?
However, it would be unfair to allow the owner’s delay, without consequence, to stand in the way of the contractor’s recovery of its delay.

No owner can or should be able to safely assert that it is entitled to assess liquidated damages in a circumstance where its delay prevented a contractor from fully recovering its delay.

But addressing this circumstance requires a scalpel, not the Standard’s offsetting delay sledge hammer.
In accordance with the Standard, a contractor would be entitled to a reduction in the assessment of liquidated damages, even if the project finishes late solely due to the contractor’s delay and even when the contractor made no effort to mitigate its delay.

Clearly, such an outcome is unjust and contrary to established industry best practices.
Questions/Comments?