National Association of Women in Construction (NAWIC)

The Law, The Analysis
and the Accounting of Delays

TRAUNER CONSULTING SERVICES

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Introductions

Mark F. Nagata, PSP, CDT
Project Manager, Lead Analyst, Expert Witness

Mark's expertise lies in the areas of construction claims preparation and evaluation, Development and review of critical path method schedules, delay analysis, dispute resolution, specification writing, and training.

- Directs and performs all types of analyses from schedule delay analyses to inefficiency analyses and determination of damages.
- Evaluates project performance and change orders and works closely with his project teams during construction process.
- Certifications:
  - Planning and Scheduling Professional, AACE International
- B.A. – Economics, University of Pennsylvania

Mary A. Salamone, Esq.
Senior Partner, Atkinson, Andelson, Loya, Ruud & Romo

Mary has dedicated her 30-year career exclusively to the area of construction law. Her practice encompasses a wide array of matters such as alternative project delivery methods, competitive bidding, contract drafting, scheduling and delay issues, change orders, cost overruns, statutory remedies, risk management, and claims resolution.

- Memberships and Affiliations:
  Construction Management Association of America, Associated Builders and Contractors of California, Western Council of Construction Consumers, National Association of Women in Construction, California Special Districts Association, and Associated General Contractors. Ms. Salamone also serves as a neutral for American Arbitration Association for construction disputes.
- Awards and Honors:
  AV® Preeminent™ rating with LexisNexis/Martindale Hubbell; Fellow, Litigation Counsel of America (a trial lawyer honorary society limited to top .5% of trial lawyers); Ms. Salamone has been repeatedly recognized by Chambers USA, America's Leading Lawyers for Business in the field of Construction Law. Best Lawyers in America - 2018
- B.A. – Political Science and International Relations, University of Rochester, Phi Beta Kappa
- J.D. – Cornell Law School

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Karen A. Monfre, CPA/ABV, CFF, ASA
Partner, Valuation, Forensics, and Litigation Services

Karen's expertise is in the areas of financial and economic damages, claims preparation and evaluation.

- Seasoned expert witness, working exclusively with attorneys for accounting, economic damages, and valuation-related litigation.
- Designations:
  - Certified Public Accountant
  - Accredited in Business Valuation
  - Certified in Financial Forensics
  - Accredited by the American Society of Appraisers as a senior appraiser
- BBA-Accounting and Computer Information Systems, the University of Wisconsin-Madison

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What is a Delay?

What is the Critical Path?

- It is the longest ***continuous path of activities*** in the schedule that forecasts ***when the project will finish.***
- ***Float*** is the amount of time an activity can be delayed and not delay the project. Activities with float are not critical.
- The critical path can and often changes during a project. This shifting of the critical path occurs when a work path with float relative to the critical path does not progress, consumes its available float, and becomes the critical path.

Critical Delay vs. Non-Critical Delay

- A delay to the critical path is a “critical delay.”
- ***Only a delay to an activity on the critical path will delay the project.***
- A non-critical delay is when an activity with float is delayed and, thus, does not result in project delay.
- Contractors are not entitled to a time extension for non-critical delays.

Establishing Contractor's Entitlement to Time Extension

Establishing Entitlement

- Review contractual requirements and strictly comply
  - Timely notification of delays and impacts
  - Submission of TIA's and supporting documentation
  - Follow claims resolution process

- Essential recordkeeping
  - Photographs & videos
  - Daily progress reports – no editorializing
  - Schedules & updates
  - Meeting minutes
  - Change orders – watch out for waiver/release language

Types of Delay

- Excusable vs. Inexcusable Delay
- Compensable vs. Non-Compensable Delay

Types of Delay

- Excusable Delay
  - Entitles contractor to extension of time but not necessarily increased compensation
  - Usually unforeseen and not the fault of either party

  Examples of Excusable Delay:

  - Acts of God (earthquakes, landslides, hurricanes, lightning, floods, etc.)
  - Labor strikes
  - Inability to obtain materials
  - Unusually severe weather

Types of Delay

- Weather
  - Must be unusually severe for geographic region (consult National Oceanic and Atmospheric Administration)
  - Non-compensable time extension unless owner-caused delays pushed work into rainy season
  - Entitlement to actual days of rain and impact days (i.e., drying out and clean-up)
  - No time if not weather-sensitive work
  - Weather must impact critical path work

Types of Delay

- Inexcusable Delay
  - No time extension or extra compensation
  - Liability for damages to owner

Examples of Inexcusable Delay:

- Failure to properly man the job
- Failure to properly schedule the work
- Failure to provide equipment or materials to project in a timely manner

Types of Delay

- Compensable vs. Non-Compensable Delay
  Compensable Delay:
  - Owner has an implicit duty to cooperate and to refrain from hindering contractor in his work

Examples of Compensable Delay:

- Unreasonable delay in making site available
- Delay in investigating contractor's request for a change or time extension
- Unreasonable delay in returning submittals or shop drawings
- Failure to furnish owner-supplied materials
- Errors or omissions in the plans or specifications
- Issuance of numerous change orders
- Failure to respond to RFIs or to make decisions within a reasonable time
- Failure to make proper and timely inspections

Types of Delay

- Compensable Delay

  No damages for delay clauses:

  - Limit or avoid responsibility for owner-caused delays
  - Upheld by California courts but strictly construed against owner

➡ Such clauses will not be given effect if:

1. Evidence of fraud, bad faith or malice on the part of the owner
2. Delay is so long that it justifies the contractor's abandoning the job
3. Owner actively interferes with the contractor's progress of the work

- Enforceability disallowed by Public Contract Code § 7102 on public projects

Types of Delay

- Summary

If Excusable Delay	→	Contractor entitled to time extension but no additional compensation
If Inexcusable Delay	→	No time extension or compensation
	→	May be liable to Owner for liquidated damages or actual damages (loss of rent, loss of profit, interest expense)
If Compensable Delay	→	Contractor entitled to time extension and additional compensation

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Types of Delay

- Concurrent Delay
  - Two separate delay events overlap (one caused by owner and one caused by contractor)
  - Both cause delay to the critical path
  - Difficult to isolate portion of blame to be assigned to each party
  - Defense to owner's assessment of liquidated damages/contractor's claim for additional compensation

Identifying and Measuring Project Delay

Measuring Delays

- A properly updated schedule enables the project participants to demonstrate how a change to the project may be responsible for a project delay.
- There are two perspectives or instances when a delay(s) can be measured.
  - **Prospectively** – forward looking, not yet occurred, in the future.
  - **Retrospectively** – backward looking, has already occurred, in the past.

Measuring Delays Prospectively

- The **“Prospective” Time Impact Analysis** is the best method of demonstrating and evaluating entitlement to additional time for a delay or change that has not yet happened**.**
- Recognized as the best prospective schedule analysis technique.
- Proper application is before the changed work is performed.
- Determines how a change will affect the remainder of the project.
- Estimates impact of added or changed work and conditions.

Measuring Delay Forensically/Retrospectively

- AACE's RP-FSA identifies 9 Method Implementation Protocols (MIPs) that can be categorized into five basic forensic schedule analysis methods.

No.	MIP Titles	5 Basic Methods
3.1	Observational/Static/Gross	**As-Planned vs. As-Built**
3.2	Observational/Static/Periodic	
3.3	Observational/Dynamic/Contemporaneous As-Is	**Contemporaneous Analysis**
3.4	Observational/Dynamic/Contemporaneous Split	
3.5	Observational/Dynamic/Modified or Recreated	
3.6	Modeled/Additive/Single Base	**Impacted As-Planned**
3.7	Modeled/Additive/Multiple Base	**Retrospective Time Impact Analysis**
3.8	Modeled/Subtractive/Single Simulation	**Collapsed As-Built**
3.9	Modeled/Subtractive/Multiple Base	

Forensic Delay Analysis Techniques

- As-Planned vs. As-Built Analysis
- Impacted As-Planned Analysis
- Collapsed As-Built Analysis
- Retrospective Time Impact Analysis
- Contemporaneous Schedule Analysis
- As-Built Analysis

Delay Analysis Recommendations

- Look to the contract for guidance regarding how to identify and measure delay.
- The analysis should rely on contemporaneous project information.
- Schedules contemporaneously submitted during the project should be used to identify and measure project delay.
- Be wary of schedules developed after the fact to quantify and assign project delay.

Calculating Delay Damages

Delay Damages

- Contractor's delay damages consist of direct and indirect expenses
  - Direct expenses are those expended at project site for supervision, office trailers, fences, and the like (i.e., general conditions)
  - Indirect expenses are costs to support job site activities such as office staff, office lease payments, project management and administrative support (i.e., home office overhead)

Delay Damages

Calculating Disruption Damages

- Owner changes method and/or sequence of construction and contractor incurs increased labor costs
- Quantification of loss of labor efficiency is a particularly vexing and complex problem
- Generally, once damages can be established with “reasonably certainty,” recovery will be allowed, even though damages cannot be stated with mathematical precision

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Delay Damages

Measured Mile Analysis

- Analyzes contractor's productivity during period when work was not impeded by owner and then compares to productivity during disruption
- Widely accepted by many courts and favored method of quantifying labor productivity claims

Delay Damages

Industry Factors

- Trade groups have published tables showing how various job site conditions can affect labor productivity (e.g., Mechanical Contractors' Association of America)
- Particular conditions are scored in percentages in terms of their effect on productivity
- Owners attack these standards as being biased since they were created by contractor trade groups

Delay Damages

Total Cost Method

- Based on premise of “cardinal change”
- Essentially turns a fixed price contract into a time and material contract
- Numerous courts have disfavored this approach

Delay Damages

Total Cost Method – Four Part Test

1. Prove bid was reasonable
2. Prove actual costs was reasonable
3. Prove contractor not responsible for its added costs
4. Demonstrate impracticability of proving its actual losses directly

Delay Damages

Modified Total Cost

- Alters total cost method by subtracting any costs incurred by contractor due to its own inefficiencies
- Main criticism of these approaches is that can be used by contractor to hide losses not caused by owner such as bidding errors or defective project management

Delay Damage Mechanics

- Contractual
  - Step one before damages are calculated
  - Many contracts define what is recoverable as to cost of a delay
  - “No damage for delay” clauses
  - General condition or other damage caps
  - Work with legal counsel to know law in the state of jurisdiction
- Labor Costs
  - Field versus home office personnel
  - Pricing – contract rates v actual cost (including burden)
- Equipment Costs - Pricing
  - Contract rates
  - Published equipment rate books
  - Internal company charge rates
  - Actual cost
  - Can get extremely complex

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Delay Damage Mechanics

- Equipment Costs
  - Equipment owned v rented
  - Operating versus idle
  - Small tools and ancillary out of pocket expenses

- Escalation costs
  - Labor
  - Materials
  - Equipment
  - Subcontractor

- Extended general conditions
  - Time-related v production based
  - One time charges
  - Pricing
    - Specific delay period quantification
    - Average project delay rate x delay days

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Delay Damage Mechanics

- Home Office Overhead
  - Which costs are allowable
  - Pricing
    - Eichleay Formula:

Contract billings / Total Company billings in contract period
x Total overhead in contract period = Allocable overhead

Allocable overhead / Actual days of contract performance
= Allocable overhead per day to contract

Allocable overhead per day x Delay days = Unabsorbed overhead

- Must be suspension of work v just a delay to be used
- Know state law applicability

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Delay Damage Mechanics

- Home Office Overhead (Continued)
  - Pricing
    - Other methods
  - Exclude overhead recovered in change orders
- Interest/Cost of capital
- Mitigation of costs

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Delay Damage Mechanics

- Recommendations
  - Preponderance of evidence must show incurred costs are reasonable, allocable, and allowable
  - Know the contract terms
  - Know the true nature of expense classification – fixed, variable, step, direct, indirect
  - Quality of damage calculation commensurate with quality of company records

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COMMENTS?
QUESTIONS?
CONCERNS?

Thank You for Attending