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Christopher J. Brasco

## Preserving Concurrent Delay As A Defense Against The Assessment Of Liquidated Damages, Part I

by Christopher J. Brasco, Senior Partner,  
Matthew D. Baker, Associate and Noah R. Meissner,  
Associate



Matthew D. Baker



Noah R. Meissner

The defense of owner-caused or concurrent delay has long been successfully employed by contractors to challenge owner assessments of liquidated damages. The defense of concurrent delay is firmly rooted in principles of causation. When a project would have been independently delayed regardless of the contractor's delay, the contractor's delay is not the but-for cause of the owner's damages. Nevertheless, a string

of relatively recent cases threatens to preclude contractors from raising the well-established defense of owner-caused or concurrent delay to challenge owner assessments of liquidated damages. These cases would appear to contravene general principles of causation and permit the owner to reap a windfall by recovering damages from the contractor for delays that are excusable or even compensable.

### Liquidated Damages Fundamentals

Given the complexity of measuring damages arising from delayed construction projects, the widespread inclusion of liquidated damages provisions in construction contracts is unsurprising. These provisions allow the parties to establish a predetermined amount, usually applied at a daily rate, that will be charged against the contractor for failure to complete the project by a certain contractual milestone.

Two basic principles of contract law underlie the use of liquidated damages provisions. One is the concept of "freedom of contract," that

parties may freely choose to enter contracts and the terms on which those contracts will operate. This is tempered by the compensatory purpose undergirding breach of contract remedies – to put the non-breaching party in the position it would have been "but for" the breach. Courts have recognized that sophisticated parties may be best situated to consider and agree upon the variety of damages arising from project delays, such as loss of use, lost profits, and increased financing costs. By serving as a substitute for an owner's actual damages, liquidated damages benefit all parties by providing a straightforward method establishing what delay damages will be and avoiding the time and cost that would otherwise be spent in proving the actual damages. For owners, liquidated damages provisions help ensure proper compensation where entitlement is clear, but proving the various elements of damages with reasonable certainty is unduly burdensome or costly. These beneficial ends, however, are only properly served when liquidated damages are measured in conformity with principles of causation.

### The Enforceability Of Liquidated Damages Provisions

The law is well established that liquidated damages provisions which are designed to be punitive or to compel contractual performance are unenforceable. *See, e.g., 172 Van Duzer Realty Corp. v. Globe Alumni Student Assistance Ass'n, Inc.*, 24 N.Y.3d 528, 536 (2014) (citation omitted) ("Liquidated damages that constitute a penalty, however, violate public policy, and are unenforceable."). When evaluating whether a particular liquidated damages provision is enforceable, courts generally consider three factors, including whether:

- [1] the injury caused by a breach of the contract is difficult or impossible to estimate accurately;
- [2] the amount specified in the provision is a reasonable forecast of the probable damage likely to result from the breach;
- [and]

[3] the parties intended the provision to be compensatory rather than punitive.

24 Williston on Contracts § 65:3 (4th ed.).

Liquidated damages provisions are certainly intended to simplify the process of proving difficult to establish damages. However, causation remains “an essential element of damages in a breach of contract action.” *Nat’l Mkt. Share, Inc. v. Sterling Nat. Bank*, 392 F.3d 520, 525 (2d Cir. 2004). Far from ignoring causation, considerations governing the enforceability of a liquidated damages provision are rooted in such principles. Indeed, each of the three factors which courts generally consider when evaluating the enforceability of a liquidated damages provision has some connection to causation.

The requirement that liquidated damages be compensatory rather than punitive requires that the liquidated damages provision at issue be qualitatively linked to causation. If the liquidated damages agreed upon by the parties have no connection to the damages likely to be caused by a breach, such a provision is punitive rather than compensatory. Similarly, the requirement that liquidated damages constitute a reasonable pre-estimate of probable loss mandates a quantitative link to causation. As noted by the Restatement (Second) of Contracts § 356 (1981) (emphasis added), “[d]amages for breach by either party may be liquidated in the agreement but only at an amount that is reasonable in the light of the anticipated or actual loss caused by the breach ....” Finally, the requirement that the actual damages for which stipulated damages are substituted must be difficult to estimate recognizes that liquidated damages are inappropriate where they are almost certain to diverge from the amount of damages actually caused by the breach.

Appreciating the nexus between causation and the enforceability of liquidated damages is essential to any meaningful evaluation of the enforceability of a liquidated damages provision. Similarly, principles of causation cannot be ignored when evaluating the apportionment of delay for purposes of assessing liquidated damages in the construction context.

### **The Advancement Of Scheduling Technology And The Evolution Of The Law Of Delay Apportionment**

The ability to analyze the root-cause of project delay has steadily improved with the advancement of project scheduling technologies. The successful use of Gantt charts on the Hoover Dam project in the 1930s, the

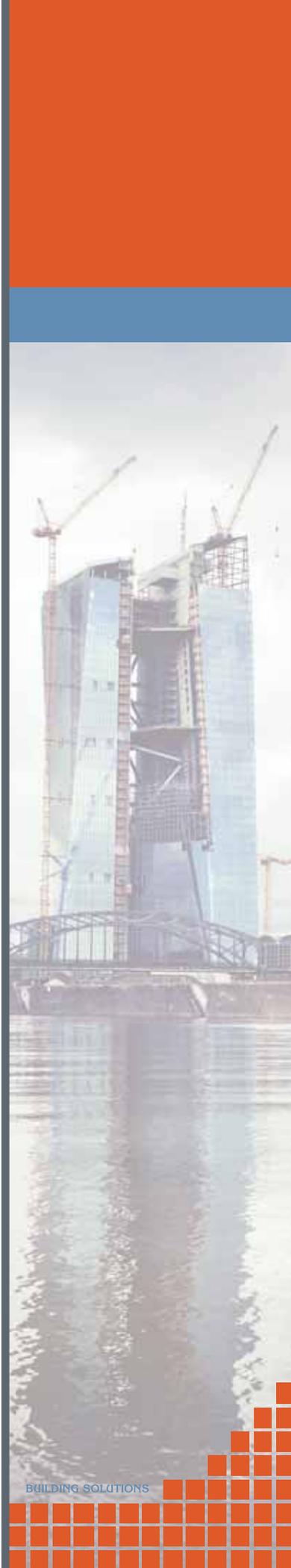
development of critical path method (“CPM”) in the 1950s, and the launch of computerized scheduling software such as Primavera in the 1980s each represented a significant step forward in the construction industry’s ability to analyze the root-cause of project delay. The evolution of the law regarding the apportionment of liquidated damages has generally tracked the increasing sophistication of scheduling technology.

Courts initially dealt with the relative lack of sophistication when apportioning responsibility for concurrent delay in the context of liquidated damages by applying the Rule Against Apportionment. Under this rule, “[w]here delays are caused by both parties to the contract the court will not attempt to apportion them, but will simply hold that the provisions of the contract with reference to liquidated damages will be annulled.” *Acme Process Equip. Co. v. United States*, 347 F.2d 509, 515 (Ct. Cl. 1965), *rev’d on other grounds*, 385 U.S. 138 (1966) (citations omitted). The reluctance of courts during this time period to apportion project delays was justified given the limitations of scheduling technology. Without a means of easily assuring that a party would not be charged with damages that it did not cause, the Rule Against Apportionment represented a safe approach to the assessment of liquidated damages.

The widespread adoption of computerized CPM scheduling software in the 1980s revolutionized delay analysis. The improved ability to determine the root cause of project delay made the Rule Against Apportionment appear “harsh and outdated.” *PCL Constr. Servs., Inc. v. United States*, 53 Fed. Cl. 479, 485 (2002). Consequently, courts began to embrace a new approach – the Rule of Clear Apportionment. Under the Rule of Clear Apportionment, courts will permit the assessment of liquidated damages, even where there is both contractor and owner-caused delay, “when there ‘is in the proof a clear apportionment of the delay and the expense attributable to each party.’” *Id.* at 487 (citing *Sauer Inc. v. Danzig*, 224 F.3d 1340, 1347 (Fed. Cir. 2000) (citation omitted)). This shift in approach and increased willingness to engage complex scheduling issues was made possible by CPM scheduling software. CPM scheduling software permitted courts, aided by expert testimony, to award liquidated damages with reasonable certainty that such awards provided compensation for damages actually caused by the contractor.

Although the enforceability of liquidated damages is determined by state law, the Rule

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of Clear Apportionment currently reflects the majority approach applied across the United States in connection with the apportionment of delay. See *Hutton Contracting Co. v. City of Coffeyville*, 487 F.3d 772, 785 (10th Cir. 2007).

### The Emerging “Rule”

Despite the widespread acceptance of the Rule of Clear Apportionment, a handful of courts may be adopting an emerging “rule” in connection with the apportionment of project delay for purposes of awarding liquidated damages. In recent years, sophisticated owners have increasingly deployed procedural arguments to limit a contractor’s ability to raise the defense of concurrent delay when opposing assessments of liquidated damages. Many of these contractual provisions (such as notice and claim submission requirements) being utilized to bar the defense of owner-caused delay were originally intended to provide owners with the opportunity to mitigate damages associated with affirmative contractor delay claims. However, a series of recent court decisions have sided with owners and enforced such contractual provisions to preclude contractors from relying on the defense of owner-caused or concurrent delay when opposing assessments of liquidated damages. Under this emerging “rule,” owners may recover liquidated damages, including amounts for owner-caused delays, where contractors fail to follow procedural provisions to preserve their defenses. Precluding any consideration of owner-caused delay would appear to represent a dramatic departure from the focus on causation found in both the traditional Rule Against Apportionment and the modern Rule of Clear Apportionment.

The decision in *Greg Opinski Constr., Inc. v. City of Oakdale*, 199 Cal. App. 4th 1107 (Ct. App. 2011) illustrates the application of the emerging “rule.” In *Opinski*, the contractor entered into an agreement with the City of Oakdale for the construction of a municipal project. The contract provided that the contractor could only obtain an extension of time by obtaining a change order through the procedure specified in the contract. The contract also provided that the contractor was entitled to an extension of time for delays caused by “circumstances beyond the control of the contractor.” In the event the contractor and owner were unable to agree upon a change order, the contractor could only obtain an extension of time by submitting a written claim for a time extension to the project

engineer. The contractor encountered delays on the project but failed to obtain a change order or submit a written claim for an extension of time as required by the contract. The city ultimately assessed liquidated damages against the contractor. At trial, the contractor argued that “its timely performance was impossible because of . . . city-caused delays.” Nevertheless, the trial court found that where the contractor failed to follow the contract’s procedure for obtaining a time extension, the cause of the delays was irrelevant for purposes of assessing liquidated damages. The California Court of Appeals affirmed the trial court’s decision, finding that:

If the contractor wished to claim it needed an extension of time because of delays caused by the city, the contractor was required to obtain a written change order by mutual consent or submit a claim in writing requesting a formal decision by the engineer. It did neither. The court was correct to rely on its failure and enforce the terms of the contract. It makes no difference whether Opinski’s timely performance was possible or impossible under these circumstances.

*Id.* at 1117-18. The *Opinski* court appeared to rely heavily on a recent, corrective statutory amendment that it believed required strict compliance with the contract’s procedural requirements in order to raise the issue of owner interference. Statutory nuance alone, however, does not explain the outcome reached by the California Court of Appeals in *Opinski*.

Courts in Alabama, Ohio, and Michigan have reached similar results. See *Cove Creek Development Corp. v. APAC-Alabama, Inc.*, 588 So. 2d 458, 459 (Ala. 1991); *Dugan & Meyers Constr. Co. v. Ohio Dep’t of Adm. Servs.*, 864 N.E.2d 68, 74 (Ohio 2009); *Abhe & Suboda, Inc. v. State, Department of Transportation*, 2017 WL 3722001 (Mich. Ct. App. 2017), appeal denied 501 Mich. 983 (Mich. 2018) (unpublished). The outcomes reached in these cases represent a new challenge to a contractor’s ability to rely on the defenses of owner-caused or concurrent delay to oppose the assessment of liquidated damages.

*Part II of this article, which will appear in Watt Tieder’s Fall 2019 Newsletter, will address legal challenges to the emerging “rule” as well as takeaways for construction professionals.* ◀



## Arbitration Agreements In Bankruptcy: An Overview

by Marguerite Lee DeVoll, Associate

### Introduction

Arbitration clauses and agreements are common place in many industries such as banking and construction. Disputes arise, however, over the enforceability of an arbitration agreement when one of the parties to the agreement seeks protection under the Bankruptcy Code (11 U.S.C. §§ 101 *et seq.*). Bankruptcy courts encountering an arbitration agreement must balance the overriding federal policy under the Federal Arbitration Act (the “FAA”) favoring arbitration with the overriding policy under the Bankruptcy Code to administer a debtor’s affairs under the supervision of the bankruptcy court. This article provides an overview of the factors considered by bankruptcy courts in deciding whether to enforce an arbitration clause.

### The Bankruptcy Code – A Fresh Start

When a debtor files for bankruptcy protection, a stay of all acts to enforce or collect on an obligation against the debtor automatically arises. This automatic stay is central to the bankruptcy process and serves to protect the principal purposes of the Bankruptcy Code: (1) providing the debtor with a fresh start; (2) protecting the assets of the debtor’s estate (which is automatically created when the debtor files for bankruptcy); and (3) allowing the bankruptcy court to centralize disputes concerning the debtor, its assets, and the estate in one forum. This third purpose protects both debtors and creditors from piecemeal litigation and conflicting judgments. In other words, “[e]ase and centrality of administration are thus foundational characteristics of bankruptcy law.” *Moses v. CashCall, Inc.*, 781 F.3d 63, 72 (4th Cir. 2015).

### The FAA – Robustly Followed

On the other hand, the FAA provides, in relevant part, that arbitration agreements “shall be valid, irrevocable, and enforceable, save upon grounds as exist at law or in equity for the revocation of any contract.” 9 U.S.C. § 2. Courts have interpreted the FAA as establishing a “liberal federal policy favoring arbitration agreements.” *Moses*, 781 F.3d at 71 (internal

citations omitted). Consequently, courts have found that unless Congress has clearly expressed an intent to preclude the arbitration of a statutory claim, an agreement to arbitrate will be enforced.

To determine Congress’ intent, the United States Supreme Court promulgated a three-factor test in *Shearson/American Express, Inc. v. McMahon*, 482 U.S. 220 (1987). First, courts look to the text of the statute at issue. If the statute does not clearly indicate Congress’ intent, then the courts look to the legislative history of the statute. If neither the text of the statute nor the legislative history provides guidance as to Congress’ intent, then the courts turn to the third factor: whether an inherent conflict exists between arbitration and the underlying purposes of the statute at issue.

In the context of the Bankruptcy Code, bankruptcy courts have generally found that neither the text of the Bankruptcy Code nor the legislative history establish a clear Congressional intent to create an exception to the FAA in the Bankruptcy Code. As such, bankruptcy courts focus their examination on the third factor: whether an inherent conflict exists.

### Determining Whether An Inherent Conflict Exists: Core Versus Non-Core Issues

In determining whether an inherent conflict exists, bankruptcy courts examine whether the dispute involves a core or non-core bankruptcy matter.

Core matters are generally those matters for which the bankruptcy court has complete statutory authority to issue judgments and orders. Specifically, 28 U.S.C. § 157(b)(2) sets forth a non-exhaustive list of matters that are “core” proceedings. Those matters include:

- Matters concerning the administration of the debtor’s estate;
- Allowance or disallowance of claims against the debtor’s estate;
- Determining property that is exempt from the debtor’s estate;

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- The estimation of claims or interests for purposes of confirming a plan under chapters 11, 12, or 13 of the Bankruptcy Code;
  - Counterclaims by the debtor's estate against persons filing claims against the debtor's estate;
  - Orders with respect to the debtor obtaining credit during the pendency of the bankruptcy;
  - Orders to turn over property of the estate;
  - Proceedings to determine, avoid, or recover preferences (transfers by debtors to creditors within a period before the bankruptcy filing that are determined to be preferential);
  - Motions to terminate, annul, or modify the automatic stay;
  - Proceedings to determine, avoid, or recover fraudulent transfers;
  - Determination as to the dischargeability of particular debts owed to particular creditors;
  - Objections to a debtor's discharge;
  - Determination of the validity, extent, or priority of liens;
  - Confirmation of plans;
  - Orders approving the use or lease of property, including a debtor's ability to continue to use their cash collateral; and
  - Orders approving the sale of property.
- Claim subordination issues; and
  - Automatic stay or discharge injunction issues.

“Procedurally” core matters, on the other hand, do not implicate the substantive rights granted parties under the Bankruptcy Code and bankruptcy law. Rather, procedurally core matters are those matters that could have arisen outside of the bankruptcy context. For example, a debtor's estate may have a counterclaim against a third-party. The right to bring this counterclaim may be a breach of contract claim. The debtor's breach of contract claim is one that could have been brought by the debtor regardless of whether the debtor filed for bankruptcy protection.

If the court finds the matter to be a substantively core matter, then the court has discretion to compel or refuse to compel arbitration of the matter. If the court finds that the matter is non-core or a procedurally core matter, then the bankruptcy courts will generally find that they lack discretion to refuse to compel arbitration. For example, the Court of Appeals for the Eleventh Circuit held in *In re Electric Mach. Enterprises, Inc.*, 479 F.3d 791 (11th Cir. 2007) that a determination of a debtor-subcontractor's claim against a general contractor for payment from part of the general contractor's settlement with a project owner over delay damages would have arisen irrespective of the debtor-subcontractor's bankruptcy filing. As such, the bankruptcy court lacked discretion to refuse to compel arbitration of the dispute.

### Other Considerations

Although the core versus non-core analysis is an important step in determining whether an inherent conflict exists, bankruptcy courts also examine other factors – such as interference with the administration of the bankruptcy estate, piecemeal litigation, cost-efficiency considerations to arbitrate in a different venue, and the types of claims involved.

### Conclusion

In short, whether an inherent conflict exists between the Bankruptcy Code and liberal enforcement of a valid agreement to arbitrate under the FAA is case and fact-specific. Seemingly minor differences – such as whether the bankruptcy case is in its infancy or near completion – may result in different determinations. Parties should proceed with caution once a bankruptcy case is filed to protect their rights, including the potential for waiving their right to arbitration. ◀

Section 157(b)(2) also includes a catch-all: other proceedings affecting the liquidation of the assets of the estate or the adjustment of the debtor-creditor or equity security holder relationship.

Determining whether a matter is core or non-core is only the first step. If the court determines the matter is a core matter, then the court will examine whether it is a substantively or procedurally core matter. “Substantively” core matters are those matters that involve substantive rights that either arise under the Bankruptcy Code or implicate the principal function of the bankruptcy process. Courts have found the following to be substantively core matters:

- A creditor's (or debtor's) exercise of the right of setoff;
- Adjudication of disputes regarding whether property constitutes property of the debtor's estate (*e.g.*, whether funds are trust funds held for the benefit of a non-debtor party);
- Actions to recover preference or fraudulent transfers;
- Orders involving the debtor's use of cash collateral;



## Cybersecurity As An Allowable Cost: Uniform Standards And Recovery For Costs Of Improving Data Protection

by CharCretia V. Di Bartolo, Partner

Firewalls. Encryption. Training. Insurance. Vigilance.

How do you protect your data and mitigate the risks inherent in the digital workplace? Experience confirms that information technology systems can easily be accessed by an unfriendly third party when one employee believes a single misleading email – and one such mistake can be extremely costly. But protections sufficient to truly secure your systems may be expensive, involve time otherwise spent on business pursuits, and will likely require buy-in at all levels of an organization. When margins are already slim, cybersecurity may take a back seat to other more immediate costs. A recent development in federal procurements, though, holds promise for contractors hoping to find a way to pay for improved cybersecurity.

The Department of Defense (“DoD”), through Katie Arrington, the Special Assistant to the Assistant Secretary of Defense for Acquisition for Cybersecurity, recently announced at the Professional Services Council’s Federal Acquisition Conference, in June 2019, that costs associated with improving cybersecurity will constitute an allowable cost on some DoD contracts. One commentator recently wrote in response to this news that “if the Pentagon follows through with its promise . . . this is one of those moments in procurement history that we will all remember.”

Although the extent of the allowance has not yet been detailed, the announcement is important because it recognizes that there is a cost that contractors and vendors bear to secure their systems in support of government projects. And like other project costs, the government, as owner, must play a direct role in both setting the bar for cybersecurity and providing compensation to address this important national security issue. This development also seemingly ends the debate as to whether cybersecurity costs can be included in overhead, at least on certain contracts and in some percentage.

The announcement that cybersecurity will be an allowable cost follows DoD’s rollout of its effort to develop and institutionalize its Cybersecurity Maturity Model Certification (CMMC) Program for contractors and vendors, which builds on the Defense Federal Acquisition Regulation Supplement regulation that required defense contractors, by December 2017, to implement the security controls in the National Institute of Standards and Technology’s Special Publication (NIST SP) 800-171. The concept of the CMMC is to standardize cybersecurity practices and require certification by third party assessment organizations. Currently, defense contractors are required to meet the NIST standard but are not audited; instead, contractors self-certify that their cybersecurity practices are sufficient. That is about to change.

The draft CMMC standard defines five maturity levels of protection, ranging from “basic hygiene,” which is presumably inexpensive enough that a small contractor or vendor could meet it, to “state-of-the-art” protections. The plan is for DoD to use third-party auditors to rate contractors on their ability to protect sensitive information on this five-point scale and then work minimum rating requirements into defense contracts. The apparent goal is to secure the entire supply chain (“supply chain risk management” according to one commentator), including by raising contractors, and their subcontractors and vendors, above the basic hygiene level, to protect DoD information. General contractors may become responsible for ensuring the cyber hygiene of their subcontractors and suppliers, a recognition that some of the most significant successful hacks in recent memory occurred because a low level supplier’s systems were unprotected.

The timing for putting the CMMC into place is aggressive. Arrington announced that the goal is to have a draft standard out in summer 2019, with third party assessors ready to certify vendors in January 2020. DoD will begin adding

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the CMMC standards to requests for information in June 2020 and will include the standards in solicitations beginning in September 2020. If that timing holds, contractors bidding on DoD contracts must be prepared to satisfy these standards in less than a year.

So how does this affect contractors who do not bid on DoD work? If, as Arrington suggested, this effort results in a standardization of cybersecurity protocols, the CMMC or similar requirements will likely expand to other federal work, and eventually to state contracts.

The interest in cybersecurity at the state level is clear. Just in the first half of 2019, 45 states and Puerto Rico introduced or considered more than 260 bills or resolutions that deal significantly with cybersecurity. Some of the key areas of legislative activity seek to:

- Improve government security practices.
- Address the security of connected devices.
- Regulate cybersecurity insurance or establish standards for insurance data and information security.
- Address elections security.
- Create cybersecurity commissions, task forces or studies.

In Massachusetts and Rhode Island, for example, where I practice, bills were introduced to give preference to technical vendors carrying cybersecurity insurance (MA H 2728 Pending), to set standards for some state contracts (MA H 2692 Pending), and to criminalize accessing the user account of another person without consent for the purpose of viewing or using information maintained on any electronic database, website, or account, with each instance constituting a separate offense (RI H 5987 Pending). Given this interest, it seems inevitable that state contracts will begin implementing requirements to secure government data obtained or shared in the course of construction projects, particularly

given the increasing cyber-connectivity between owners, general contractors and their subcontractors and vendors. Such implementation by the states will be much easier if the federal government has already put standards in place.

Given these developments, it makes good sense to revisit and update your company's cyber risk management plan. Strong protocols that protect systems from third party access, including the use of firewalls, encryption and frequent password changes, are recommended. In addition, employee training is a must, *e.g.*, to provide updates on how hackers target and access systems and to reinforce the essential habit of not clicking that attachment from a stranger's email. Revisions to contract language to shift the liability and cost to subcontractors and vendors may also be appropriate. Finally, insurance programs should be reviewed with an insurance agent or legal professional to confirm that the coverage in place truly provides the first- and third-party protections that are desired and expected.

For good reason, strong cyber hygiene is increasingly viewed as a necessity rather than a luxury, and at some point in the near future it may no longer be optional. As the federal government moves toward a common standard, it remains to be seen whether DoD will implement attainable goals for small and medium sized contractors. But the explicit indication that DoD will allow costs for cybersecurity to be included in overhead, at least on some contracts, is a recognition by the government that it must share in the cost burden if it wants to accomplish its goal of protecting valuable data. Contractors who recognize that the bar for cybersecurity is being set and position themselves now to both achieve compliance and recover the associated costs, where possible, will have the competitive edge. ◀

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Shelly L. Ewald



Albert L. Chollet III



Sara M. Bour

# Navigating Lost Productivity Claims

by Shelly L. Ewald, Senior Partner, Albert L. Chollet III, Partner, and Sara M. Bour, Associate

Change is inevitable on a construction project. When unanticipated changes interfere with or disrupt a contractor's performance of the work, the changed circumstances may result in diminished productivity, increased costs, and decreased margins. The contractor may have the right under the terms of its contract to assert a claim for the resulting damages, but the likelihood and extent of recovery is significantly enhanced if the contractor has taken appropriate steps to preserve its contractual rights

and build a sufficient record to enable proof of its claim. The contractor must be mindful of these considerations during performance and take appropriate steps to preserve and prepare for a future claim.

Interference and disruption of the orderly progress of a contractor's work can produce costly impacts, including inefficiency caused by out-of-sequence work, overtime and night shifts, duplication of effort, idle time, material complications, and unanticipated manpower requirements. While inefficiency can have any number of causes, one common cause of inefficiency is interference or delay by third parties, leading to unplanned re-sequencing of work, trade-stacking, overtime, and limits on or dramatic changes to site access. To establish entitlement on a claim for lost productivity, the contractor must focus first on the nature of the impacts and then on the cause of the impacts, identifying the entity or entities that bear responsibility. Once entitlement has been established, the next step is to prove quantum.

Pursuing a claim for lost productivity is no small feat, and the likelihood of success will

be increased if the claimant does not wait until all impacts are known to begin pursuing its rights. The time to plan and take action is when the unanticipated changes first occur or when the impacts of those unanticipated changes is first realized. Moreover, contractors seeking to recover their productivity losses must be prepared to prove their claim with contemporaneous data. Preserving the legal and contractual right to bring the claim and maintaining comprehensive and detailed records will enable persuasive packaging and presentation of the claim.

## Entitlement In Connection With Lost Productivity Claims

A claim of lost productivity is a claim arising out of a changed condition, delay or occurrence on a construction project that causes a contractor to alter its method of performance so as to proceed in a less productive and usually more costly manner. While a lost productivity claim may share many of the same hallmark causes as a pure delay or extension of time claim, it is important to recognize the distinction between the two types of claims. [For a discussion of the differences between delay and disruption damages and the requisite elements of the latter claim, see *Sauer, Inc. v. Danzig*, 224 F.3d 1340, 1348 (Fed. Cir. 2000)]. Where a project is timely completed, but a contractor nevertheless experienced disruption during its performance—be it through changed methods of performance, defective specifications, acceleration, or other factors directly impacting manpower requirements and contractor efficiency—the contractor must be able to demonstrate that it incurred increased costs as a result of some factor which caused diminished productivity or required a more costly manner of performance. Disruption damages may be warranted where a project finishes on time, but at a greater expense than originally estimated because of disruptive events or scheduling errors which require acceleration, resequencing, increased manpower, or other changed methods of performance, which the owner either caused or were within its scope of responsibility. Hinderances on a contractor's performance may reduce the productivity, but it need not result in a delay to the completion date to be actionable. See, e.g., *Cty. of Galveston v. Triple B Servs., LLP*, 498 S.W.3d 176 (Tex. App. 2016).

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To prove a claim for loss of productivity, a contractor generally bears the burden of proof for three elements: (1) liability; (2) causation; and (3) resultant injury for the impact of changes. *See, e.g., George Sollitt Const. Co. v. United States*, 64 Fed. Cl. 229, 237 (2005). These elements generally must be proven by a preponderance of the evidence, meaning that the evidence must establish that it is more likely than not that each of these factors is present. “Liability” requires proof that the owner’s actions or inactions changed the contractor’s costs for which the owner is legally liable. “Causation” requires proof of a causal nexus between the basis for liability and the resultant damages. *See, e.g., Southern Comfort Builders, Inc. v. United States*, 67 Fed. Cl. 124 (2005). Demonstrating causation can come with its own practical complications. A general contractor claimant must show that the loss of productivity was caused by an owner’s act or failure to act and not as a result of the general contractor’s own doing. This showing is often highly factual and can be difficult to accomplish without adequate documentation showing that notice was provided, tracking the progress of the changed or impacted work, and clearly identifying those acts or failures to act that impacted the work. *See, e.g., United States ex rel. Salinas Constr., Inc. v. W. Sur. Co.*, No. C14-1963JLR, 2016 WL 3632487 (W.D. Wash. July 7, 2016). In claim documentation, contractors are well served to separate their own actions that affect their work from the owner-caused impacts that affect productivity, which is often difficult to do without a forensic schedule analysis after the project is complete. Moreover, contractors should also demonstrate the unforeseeable nature of the change or impact that affected productivity to support the causation argument. To demonstrate a “resultant injury,” a contractor must prove that it has incurred actual damages, including but not limited to extra or unanticipated costs for labor, wages, materials, overhead, general conditions or other similar costs. The caselaw doesn’t require proof to an exactitude, but it does require proof to a reasonable degree of certainty concerning the fact and amount of damage incurred. *See, e.g., Luria Bros. & Co. v. United States*, 369 F.2d 701 (Ct. Cl. 1966). This generally requires the use of competent expert opinion and analysis and acceptable methodology for quantification.

#### **Contemporaneous Documentation Is A Contractor’s Most Reliable Route for Success**

While inefficiencies may be felt throughout performance, the idea of preparing a claim may be an afterthought for many contractors. It is easy to think that, given the document-intensive

nature of construction, contemporaneous documentation such as change orders, requests for information, and routine correspondence will sufficiently document the timeline of the project. However, it is entirely possible that the ultimate audience for a general contractor’s claim may not be the owner but rather an arbitrator, judge or jury. As such, the claimant may need to produce documentation to persuasively present a claim to an individual who lacks specific knowledge of the project or the issues involved.

In practice, a successful inefficiency claim is dependent upon a contractor’s contemporaneous documentation of its work on the project. There are several methods in which a contractor may keep sufficient records of the project to support its inefficiency claim. Initially, during the bid process, contractors might establish a labor cost and productivity baseline for the original scope of work. This can be done by documenting the labor productivity factors in developing the labor component of the original bid. These baseline calculations should not include post-bid changes to the anticipated productivity or labor rates. Though this may seem contradictory to the notion that a contractor must safeguard its process of determining a bid price, this baseline will be essential to establishing the losses suffered by the contractor, including that the contractor did not underbid the project.

The mechanics of a lost productivity claim often include comparing the anticipated or achieved unit rate for the as-planned installation of commodities, materials or equipment with the unit rates for the impacted work. Thus, contractors should maintain detailed job data to maintain a distinction in their job reports between budgeted unit rates and the actual unit rates encountered in performing the work. Construction cost codes also provide contractors the ability to segregate costs into different categories so that specific job or task costs are easily identifiable and able to be linked to the specific causes of inefficiency. From the standpoint of the expert claim consultant or counsel who is assisting with preparation of the claim, maintaining accurate data to calculate unit rates over the life of the job and cost coding is a significant benefit. In litigation, being able to easily categorize various costs and present the data clearly to a fact finder will likely enhance presentation of the claim and lend credibility to damages analyses.

Other actions such as maintaining detailed daily reports and minute meetings can also prove crucial. Daily reports containing not only the daily actions of on-site personnel, but also

details concerning notice of issues, actions or inaction, inefficiencies being experienced, or other operations are generally useful. In the same manner, meeting minutes should highlight the issues being encountered on the project site and explain any variations in productivity, such as the reasons behind non-operational equipment or why a contractor completed only a small percentage of work in a month and a much greater percentage later in the project.

Contemporaneous documentation is generally considered more reliable and, hence, more persuasive than claim documentation created after the fact. The existence of contemporaneous documentation lends credibility to explanations concerning the root causes of impacts and the resultant inefficiency. Contemporaneous documentation may also provide a better, more persuasive basis for a contractor's assertion that a given change or impact could not have been anticipated because it provides context. Moreover, contemporaneous records can be used to establish the link between the owner's actions, such as changing the work, or inaction, such as failing to acknowledge a change order, and a specific measurable impact to the completion of the project.

#### **Methods For Quantifying Lost Productivity Claims**

Much has been written concerning the scheduling and damages analyses required to successfully pursue lost productivity damages. This Article will not attempt to address or summarize all aspects of the various approaches. It is important to note, however, that a rudimentary comparison of as-planned versus as-built performance will likely prove insufficient. Instead, after establishing entitlement to recover additional costs, contractors should quantify their lost productivity through the use of acceptable methodologies for quantification of production losses and resultant costs. This can usually best be accomplished with assistance of an expert who may not only render an opinion concerning the ultimate fact of damages but also on why the methodology chosen is appropriate under the specific circumstances at issue.

The construction industry has developed a variety of methodologies for analyzing and quantifying labor inefficiency claims. Which approach is utilized will often depend on the availability and quality of the contemporaneous project documentation, although other practical considerations including the reliability of the approach, venue of the dispute, or the costs of the analysis may factor into the final methodology selected. These approaches include the measured mile, modified total

cost, industry studies, and sampling methods, among others. These approaches have been widely discussed at length in the construction industry. One of the most comprehensive and often cited discussions of these methodologies was published by the Association for the Advancement of Cost Engineering (AACE) International in its recommended practice entitled "Estimated Lost Labor Productivity in Construction Claims." AACE International, Recommended Practice 25R-03, *Estimating Lost Labor Productivity in Construction Claims*, April 2004. The AACE International's article sets forth in great detail the recommended practices of estimating loss of productivity experienced on a job site.

The AACE recommends various methodologies in order of precedence, beginning with the measured mile analysis. This is consistent with court decisions that have concluded that the measured mile analysis is the "preferred" method of analysis. See, e.g., *Appeal of Danac, Inc.*, ASBCA No. 33394, 97-2 B.C.A. (CCH) ¶ 29184 (July 31, 1997), *aff'd*, ASBCA No. 33394, 98-1 B.C.A. (CCH) ¶ 29454 (Dec. 10, 1997), *James Corp. v. N. Allegheny Sch. Dist.*, 938 A.2d 474 (Pa. Commw. Ct. 2007). While the measured mile analysis is often recognized as the most reliable method for calculating lost productivity costs, there may be reasons to resort to other methodologies, primarily due to lack of an unimpacted period for comparable work. In such cases, contractors who have performed similar projects may utilize a comparable project analysis, using unit rate data for the same or similar work. Other recommended analyses include modified total cost or hour methodology or use of published studies that quantify lost productivity based on the nature of the impacts.

Though the methodology of proving loss of productivity damages may differ based on the facts of each case, one common requirement, particularly when presenting a measured mile or analysis using published studies, is the need to present expert testimony regarding the calculation and approach. While the contractor may attest to its original plan, the impacts, and the manner in which the costs/productivity were affected, independent and expert analysis of the appropriate unimpacted and impacted period, as well as the effect of learning curves, etc. is often necessary to present a convincing and verified analysis.

Consultation with a qualified expert and/or legal counsel early in the claim process is also advisable. Early action will provide sufficient time for the expert and/or counsel to assess

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available documentation, understand project-specific factors, institute best practices, and analyze other practical considerations weighing on the strategic decision of how best to approach the specific inefficiencies encountered.

### Conclusion

Change happens. When it does, inefficiencies can result that may lead to additional costs that

are compensable under the terms of the contract and/or the law. While there are numerous technically acceptable methods for quantifying inefficiency costs, the approach chosen may ultimately be determinative of the success or failure of the claim. Whether a given approach to quantifying productivity losses is available may turn on the quality and availability of contemporaneous documentation. ◀



## Blockchains 101: The Essentials

*by Brian C. Padove, Associate*

While many have little to no knowledge about blockchain technology, it is not an abstract concept.

Specifically, this technology presents many interesting potential possibilities and benefits, and thus, it makes sense for construction professionals to familiarize themselves with the concept and keep their eyes open for its possible implementation. This article provides a basic understanding of the technology and its potential impact on the construction industry.

Decentralization, hashes, nodes – these are just a few of the terms related to blockchain technology. When taken alone, these terms may conjure up thoughts of high-tech science (or for some of us, a foreign language). It is possible, however, that this technology could be implemented throughout the business world, and ignoring it will not be an option. While one may be timid about blockchains, understanding the basics of the technology does not require learning a “foreign language” or having a high-tech science degree. Instead, the basic principles underlying the technology are relatively straightforward → Block + Chain = Blockchain.

### What Is Blockchain Technology?

A “blockchain,” in its most basic form, is a ledger or database which stores information across a network, rather than storing information in one location on a network. In other words, it is a distributed ledger, which means that the ledger is broadcast across the blockchain network and made available to all participants on the network. Why is this important? Well, whenever a new ledger entry is submitted, the network participants (some of which are called “nodes”) will verify that the entry is valid (or in other words, the entry falls in line and makes

sense when compared to prior entries and information on the ledger), and then, if verified, the new entry is added to the ledger. Thereafter, when the next entry is added, the previous information from the first entry is included in the ledger and said information is used by the nodes to validate and verify the second entry. Again, the blockchain is just a simple ledger, but instead of intermediaries doing the validation work, the blockchain itself (through nodes) verifies the validity of each new entry. Thus, in essence, the blockchain continuously reconciles the ledger.

The simplest way to explain how blockchain technology works is through an example of a basic transaction. First, the Buyer, who is identified on the blockchain by its own unique digital signature, will attempt to purchase a widget from the Seller. After the Seller agrees to make the sale, the transaction information, including, among other things, the Buyer’s signature, timestamp, and funds that will be transferred via the transaction, is broadcast to the network. Then, the network participants/nodes analyze the transaction details to confirm the validity of the transaction (i.e. by analyzing the Buyer’s history to confirm he/she has the necessary funds to complete the transaction). Once the nodes confirm the validity, the transaction is given its own unique encrypted identifier (its “hash”), and the hash, which includes all of the transaction details, is added to a “block.” After a certain amount of time (which varies by blockchain), the “block,” which includes all of the transactions that have taken place during the time period, is closed and then added to the ledger. The process continues - additional transactions occur and are verified, the transactions are added to blocks, the blocks are closed, and then the blocks are added to the ledger. Thus, a “chain” is created between the prior blocks and new blocks, and the chain

will show the entire transaction history on the network. In sum, the blocks are connected and form a chain – the blockchain.

### Benefits Of Blockchain Technology

Why would a business use blockchain technology rather than a simple ledger or database? There are numerous benefits: it is more secure, it is generally incorruptible, and it provides greater efficiency. With regard to security and the incorruptibility of the blockchain, such characteristics are built into the basic framework of the technology. Specifically, as mentioned above, the blockchain is a “decentralized” ledger where the information is stored simultaneously across the network participants, not in one single location. Thus, if one were to attempt to hack into the ledger and alter the information, the hacker would have to access *all* of the network participants, not just one location. Moreover, given the blockchain’s protocol (i.e. where each block added to the chain is verified and confirmed as valid based on the prior blocks in the chain), in order to alter the information in the ledger, a hacker would have to modify all prior blocks and information on the chain. Thus, the blockchain is essentially incorruptible.

Additionally, blockchain technology allows for an increase in business efficiency, such as its ability to limit the necessity of an intermediary to verify entries. Specifically, given the automatic verification process the nodes complete for new data entries, there is no need for an intermediary to validate each transaction or entry. Further, in conjunction with the general characteristics of blockchains, specific coding can be built into the blockchain network to perform different tasks, including automating payments, scheduling, or supply chain management. These many nuances of blockchain technology are continuously evolving, and as they continue to do so, this technology may have an impact across all industries, including the construction industry.

### Blockchains In The Construction Industry

Before getting into specifics, it is important to note that blockchain technology is in its infancy as it was created less than two decades ago. Thus, it is imperative to understand that the developments of this technology are ongoing, and the list of potential uses will continue to grow as time goes on and new coding and algorithms arise. Nevertheless, there are two examples of how blockchain technology is being used today that could someday have an impact on the construction industry: (1) smart contracts, and (2) supply chain management.

### Smart Contracts

A smart contract is the term used to describe coding that runs in conjunction with the blockchain which sets specific sets of rules that must be met in order for something to occur. In other words, it is a type of computer code based on an “if-then” principal, whereby if something occurs, then something else will occur as a result – just as *if* you pick a drink from a vending machine and insert the required funds, *then* the machine will automatically dispense the chosen drink.

Smart contract terms (the coding) could be integrated into construction contracts to facilitate any number of things. For example, a general contractor may subcontract with a masonry contractor for the construction of five brick walls on a project. The subcontract could integrate smart contract terms as a clause and refer to the blockchain network on which the smart contract runs. Then, the smart contract coding on the blockchain can set the specific parameters – i.e. the masonry contractor will be paid one-fifth of the subcontract amount after satisfactory completion of each brick wall. Thereafter, once the masonry contractor completes the first wall, it would simply have to enter the code indicating completion onto the blockchain, and then, the subcontract funds would automatically be released to the masonry contractor. Thus, *if* the masonry contractor completes the first wall and the satisfactory completion code is entered onto the blockchain, *then* one-fifth of the subcontract funds are released to the contractor. While this is a basic example, it demonstrates the efficiency of paying subcontractors through the integration of smart contracts built on the blockchain.

Nevertheless, we know that these types of subcontract transactions do not always go off without a hitch. Accordingly, different types of safeguards could be integrated into the smart contract coding. For example, coding can be integrated for different performance issues such as delay or deficient work. That said, smart contracts are only as “smart” as those who are coding them. As such, one thing to note as smart contracts potentially become more prevalent is that not all scenarios are likely to be accounted for through coding, and thus, it will be prudent upon the contracting parties to understand the potential liabilities of using smart contracts and account for such uncertainties.

### Supply Chain Management

Another potential integration of blockchain technology is in supply chain management. Blockchain technology would be able to

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provide more detailed tracking information than what is currently available – and this exact type of integration has been studied in many different industries. For example, retail grocers have tested the use of blockchain technology allowing consumers to trace turkey meat back to its original home farm.

While the construction industry obviously would not be tracking meat from farm to consumer, one can easily see the benefits of tracking a piece of material from its origin to the end placement on a construction project. In essence, the blockchain would allow for the general contractor (or owner) to track every piece of material used on the project site from its origin, through the shipment of the material and arrival at the construction site, to its final use in the project. Thereafter, if any issues arise with the material, they will be easily tracked.

With this in mind and given the numerous industries already integrating blockchain technology to assist in supply chain management, it is possible that such integration will be coming to the construction industry.

### Conclusion

As discussed above, blockchain technology is still in its early developmental stages. Nevertheless, as the number of news stories centered on blockchains increases, along with the growing number of industries and companies testing the integration of blockchains into everyday business, the integration of blockchains into the construction industry is inevitable. Thus, understanding of the technology will be beneficial. ◀

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## » FIRM NEWS «

### New Location for Watt Tieder Office in Irvine

Please note that Watt Tieder's Irvine Office has relocated to the following address:  
4 Park Plaza  
Suite 1000, Irvine, CA 92614

Phone and fax remain the same:  
[p] +1 (949) 852-6700  
[f] +1 (949) 261-0771

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## Honors

### U.S. News and World Report - Best Lawyers 2020

The following **Watt Tieder** attorneys were named among the Best Lawyers in America for 2020: **Lewis J. Baker, Christopher J. Brasco, Bradford R. Carver, Shelly L. Ewald, Robert M. Fitzgerald, Vivian Katsantonis, Jennifer L. Kneeland, Robert C. Niesley, Kathleen O. Barnes, Edward J. Parrot, and Carter B. Reid.**

**Best Lawyers** lists are compiled based on an exhaustive peer-review evaluation. For the 2020 Edition of **The Best Lawyers in America**, over 7 million votes were collected and analyzed. Lawyers are not required or allowed to pay a fee to be listed; therefore, inclusion in **Best Lawyers** is considered a singular honor.

### U.S. News and World Report – Lawyer of the Year 2020

Best Lawyers in America, the oldest peer-review publication in the legal profession, has named Watt Tieder senior partners **Robert M. Fitzgerald** and **Robert N. Niesley** “Lawyer of the Year.” **Bob Fitzgerald** was named Lawyer of the Year for Construction law in Washington,

D.C., and **Rob Niesley** was named Lawyer of the Year for Construction Litigation in Orange County, California. Only a single lawyer in a specialty in each market is honored as “Lawyer of the Year.” ◀

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## Publications

**Handling Fidelity Bond Claims, 3d Ed., Retaliatory Litigation**, CharCretia V. Di Bartolo, November 2019.

**Lauren Rankins** served as an editor for the **Fidelity & Surety Law Committee's Spring 2019 Newsletter.** ◀

## Recent and Upcoming Events

**Joint AAA ICDR-Beijing International Arbitration Centre Summit**, June 26, 2019; New York, New York. **Shelly L. Ewald** spoke on a panel regarding Mega Projects. Shelly has worked on several power plant projects in China and Taiwan and successfully arbitrated disputes regarding the design of Taiwan's Fourth Nuclear Power Plant against the Taiwan Power Company.

**Surety Association of Massachusetts**, June 27, 2019; Boston, Massachusetts. **Jonathan C. Burwood** spoke on "Managing Contractor and Surety Risks in the Face of Opportunity."

**7th Annual Midwest Surety & Construction Claims Conference**, July 18-19, 2019; Chicago, Illinois (sponsored by Watt Tieder and others). **Lauren E. Rankins** co-moderated the event and was also a speaker. Other Watt Tieder presenters included **Matthew D. Baker**, **Sara M. Bour**, **Christopher J. Brasco**, **Albert L. Chollet**, **Aniuska C. Rovaina** and **John E. Sebastian**.

**30th Annual Northeast Surety & Fidelity Claims Conference**, September 18-20, 2019; Atlantic City, New Jersey. **Christopher J. Brasco**, **Christopher M. Harris**, and **Noah Meissner** to speak on "Stemming the Flow of Liquidated Damages."

**30th Annual Northeast Surety & Fidelity Claims Conference**, September 18-20, 2019; Atlantic City, New Jersey. **Vivian Katsantonis** and **Adam M. Tuckman** will speak on "The Psychology of Risk Management and Claims Resolution."

**CMAA 2019 National Conference**, September 22-24, 2019; Orlando, Florida. **Christopher J. Brasco** and **Kathleen O. Barnes** will speak on "Proven Risk Management Strategies for Collaboratively Addressing Project Changes."

**CMAA 2019 National Conference**, September 22-24, 2019; Orlando, Florida. **Jonathan R. Wright** will participate as a panelist for a presentation entitled "Standardizing Visual Construction Progress Documentation."

**CFMA 2019 Midwest Regional Conference**, September 23, 2019; Chicago, Illinois. **Lauren E. Rankins** and **Brian Padove** will present on "Blockchains: What Are They and How Will They Affect the Construction, Surety and Legal Industries."

**American Bar Association**, November 7-8, 2019; Boston, Massachusetts. **CharCretia V. Di Bartolo** will speak on handling fidelity bond claims. ◀

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## Announcement

**Hanna L. Blake** was elected to be Chair of the **Construction Law and Public Contracts** section of the **Virginia State Bar**.

**Marguerite Lee DeVoll** was elected to the Board for the **Maryland Bankruptcy Bar Association**

as a Director-at-Large. She was also re-elected as the **Membership Committee Co-Chair** for the **Greater Maryland Network of the International Women's Insolvency and Restructuring Confederation**. ◀

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## New Associate



**Nathan P. Walter** is an associate in Watt Tieder's Irvine office specializing in civil matters ranging from commercial and construction litigation to intellectual property prosecution. Prior to joining Watt Tieder, Nathan practiced

aviation and aerospace litigation, with a focus on emerging technologies such as drone aviation. Nathan graduated from UCLA Law School where he worked in the Los Angeles District Attorney's Hardcore Gang Unit. ◀





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WATT, TIEDER, HOFFAR & FITZGERALD, L.L.P.

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McLean, Virginia 22102

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McLean, Virginia 22102  
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(949) 852-6700

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Suite 1800  
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(305) 777-3572

10 South Wacker Drive  
Suite 1100  
Chicago, Illinois 60606  
(312) 219-6900

175 Federal Street  
Suite 1225  
Boston, MA 02110  
(857) 504-1140

HFK Rechtsanwälte\*  
Maximilianstrasse 29  
D-80539 Munich, Germany  
Phone 011 49 89 291 93 00

Global Construction & Infrastructure  
Legal Alliance  
91, rue du Faubourg Saint-Honoré  
75008 Paris, France  
Phone 33 (0)1 44 71 35 97

*\*Independent Law Firm*

The Watt, Tieder, Hoffar & Fitzgerald newsletter is published quarterly and is designed to provide information on general legal issues that are of interest to our friends and clients. For specific questions and concerns, the advice of legal counsel should be obtained. Any opinions expressed herein are solely those of the individual author.

Special Thanks to Editors, **Robert G. Barbour, William Groscup, Christopher M. Harris and Marguerite Lee DeVoll.**

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