Arkansas Law Review

Volume 75 | Number 2

Article 6

June 2022

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Recommended Citation

Carl J. Circo, Construction Law Apologetics, 75 Ark. L. Rev. (2022). Available at: https://scholarworks.uark.edu/alr/vol75/iss2/6

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CONSTRUCTION LAW APOLOGETICS

Carl J. Circo*

The construction industry constitutes one of the most significant segments of the global economy and presents a constant stream of legal issues and policy questions.¹ A highly specialized construction bar creatively solves complex transactional challenges and implements innovative dispute resolution practices. The legal academy, however, barely allots construction law a place in the law school curriculum, and legal scholars all but ignore it as a topic for scholarly attention.² Many law professors see construction law, if they acknowledge it at all, as a narrow practice specialty requiring lawyers and courts to do little more than apply general legal principles to a commercial activity.

This Article challenges the legal academy's perceptions and offers an alternative assessment of the relationship between the construction industry and law. Part I reviews practical reasons for teaching construction law to law students. In brief, Part I first demonstrates how a construction law course pairs advanced instruction in several topics introduced in the core curriculum,

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^{1.} See generally Philip L. Bruner, Construction Law: Its Historical Origins and Its 20th Century Emergence as a Major Field of Modern American and International Legal Practice, 75 ARK. L. REV. 207 (2022).

^{2.} See id. at 234-36 (estimating only twenty-six accredited law schools offer construction law courses); Paula Gerber, The Teaching of Construction Law and the Practice of Construction Law: Never the Twain Shall Meet?, 20 LEGAL ED. REV. 59, 61 (2010) (also finding twenty-six law schools offer construction law courses in America, which amounts to only eleven percent of schools); Lawrence C. Melton, What We Teach When We Teach Construction Law, Constr. Law., Summer 2009, at 8 (noting at least twenty-six Forum members are teaching construction law in law schools). My own informal surveys comport with these estimates. Part II of this Article discusses the state of scholarly engagement with construction law.

such as contracts, torts, civil procedure, evidence, remedies, and dispute resolution, with lessons on adapting legal knowledge to the specialized construction industry practice. Next, it explains how studying construction law can prepare students to represent clients in a wide range of complex commercial matters that require expertise in transactional practice, advocacy, and dispute resolution. Then, Part II makes the case for greater scholarly engagement with the legal aspects of the built environment, exploring some especially promising contract and tort topics in detail before briefly suggesting other potential research projects. Part III concludes by proposing an ongoing dialogue between construction lawyers and the legal academy.

I. REASONS TO TEACH CONSTRUCTION LAW IN LAW SCHOOLS

The relatively few law schools that regularly offer construction law courses do so for the same reasons schools teach many other practice specialty courses in the upper-level These offerings differ from courses primarily curriculum. focused on advanced legal doctrine (say First Amendment as a subset of Constitutional Law), legal theory (such as Jurisprudence and Law and Economics), or targeted practice skills (such as Trial Advocacy and Negotiations) because practice specialty courses immerse students in the legal aspects of an industry or a segment of the economy. As such, these courses cross doctrinal, theoretical, and skills boundaries. Courses such as Real Estate Transactions and Mergers and Acquisitions, among many others, sometimes approach their subjects primarily as advanced doctrinal studies and at other times as practice specialty courses. The same can be said of other upper-level courses, such as Health Law, Entertainment Law, and Cybersecurity, to name but a few, that have become popular more recently.

Legal educators and critics of legal education disagree about whether, or the extent to which, the curriculum should expand beyond traditional subjects.³ One opinion has it that law schools

^{3.} See generally J. Lyn Entrikin, The Death of Common Law, 42 HARV. J.L. & PUB. POL'Y 351, 464-87 (2019) (discussing the need to include legislative and administrative law in legal education and the barriers to innovating the law school curriculum); Michael

should teach courses that "illuminate the entire law" rather than ones "suited to dilettantes." From that perspective, a construction law course might seem to be concerned merely with law about construction industry activities and disputes rather than with a legitimately distinct field of law. Advocates for teaching practice specialty courses, not surprisingly including construction law teachers, contest such a characterization to one degree or another. For the purposes of this Article, I happily abstain from the general debate. I simply argue that to the extent practice specialty courses belong in law schools, and admittedly I believe they do, construction law stands equal to those that have already achieved much wider acceptance.

My purpose in this Part is not to review a typical or model construction law course or to explore the full range of issues and skills a model course might cover. At least two popular textbooks offer that kind of guidance for those unfamiliar with construction law as an academic topic.⁶ For more comprehensive coverage, two treatises discuss the relevant principles, cases, legislation, and regulations in great depth.⁷ This Part simply advances reasons for teaching construction law. My advocacy goes well beyond the claim that law schools should introduce students to construction law as a major practice specialty. More compelling than that is how the course can help students begin to understand what it means to represent clients engaged in a major segment of the economy, in which multiple participants interact over an extended duration in complicated and interdependent

Millemann, *The Symposium on the Profession and the Academy: Concluding Thoughts*, 70 MD. L. REV. 513, 519-24 (2011) (discussing Symposium participants' proposed changes to the law school curriculum and teaching methods and differing views about whether such changes could be integrated).

^{4.} Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. LEGAL F. 207, 207 (1996).

^{5.} See Melton, supra note 2, at 8; Allen L. Overcash, The Case for Construction Law Education, CONSTR. LAW., Summer 2009, at 5.

^{6.} See Construction Law (Carol J. Patterson et al. eds., 2d ed. 2019) [hereinafter Forum Textbook]; Justin Sweet & Marc M. Schneier, Legal Aspects of Architecture, Engineering and the Construction Process (9th ed. 2013). I have used each of these resources to teach my construction law course at different times.

^{7.} See PHILIP L. BRUNER & PATRICK J. O'CONNOR, JR., BRUNER & O'CONNOR ON CONSTRUCTION LAW, Westlaw (database updated Mar. 2022); STEVEN G.M. STEIN, CONSTRUCTION LAW (2022), LexisNexis.

relationships, and for which law is but one of many key factors. Accordingly, an important purpose of this Part is to explore the study of construction law as an especially effective vehicle—I would say the ideal vehicle—for introducing students to a highly complex commercial practice. First, however, an overview of substantive elements common to construction law courses will help define construction law as a distinct subject in the law school curriculum.

A. Basic Training for Future Construction Lawyers

A construction law course inevitably offers advanced lessons in several topics. Contracts immediately come to mind. Few human activities test contract law principles as thoroughly and intensely as the construction industry does, with its high-risk environment and complex web of interdependent exchange relationships. The cases offer classic examples challenging the boundaries of principles as basic as offer and acceptance,⁸ privity of contract,⁹ and implied warranty.¹⁰ Construction cases have played dominant roles in the development and refinement of several of the most important contract law doctrines, including substantial performance,¹¹ reliance as a substitute for consideration,¹² the economic waste limitation on breach of

^{8.} See, e.g., Drennan v. Star Paving Co., 333 P.2d 757, 759-61 (Cal. 1958).

^{9.} See, e.g., Blagg v. Fred Hunt Co., 272 Ark. 185, 186-90, 612 S.W.2d 321, 322-24 (1981).

^{10.} See, e.g., Lane v. Trenholm Bldg. Co., 229 S.E.2d 728, 729-31 (S.C. 1976).

^{11.} See, e.g., Clem Martone Constr., LLC v. DePino, 77 A.3d 760, 771-74 (Conn. App. Ct. 2013); W. E. Erickson Constr., Inc. v. Cong.-Kenilworth Corp., 503 N.E.2d 233, 237 (Ill. 1986); Plante v. Jacobs, 103 N.W.2d 296, 297-99 (Wis. 1960); S. D. & D. L. Cota Plastering Co. v. Moore, 77 N.W.2d 475, 477-78 (Iowa 1956); Jacob & Youngs, Inc. v. Kent, 129 N.E. 889, 891-92 (N.Y. 1921); see also 5 BRUNER & O'CONNOR, supra note 7, at § 18:12 (providing that "[s]ubstantial performance" of a construction contract is the point at which the work can be used for its intended purpose, notwithstanding minor remaining nonconformances or uncorrected deficiencies, and negates materiality of any uncured breach, and allows the contractors to recover its full contract price less damages for any uncured breach").

^{12.} See Drennan, 333 P.2d at 759-60; CARL J. CIRCO, CONTRACT LAW IN THE CONSTRUCTION INDUSTRY CONTEXT 34-37 (2020) [hereinafter CONTRACT IN INDUSTRY CONTEXT].

contract damages, ¹³ unilateral mistake, ¹⁴ and the demise of the pre-existing duty rule.¹⁵ More broadly, construction industry cases figured prominently in the transition from the formalism of classical contract theory to the far more flexible principles of neoclassical contract and relational contract theory. 16 influence appears especially in contextual approaches courts often employ in the interpretive process.¹⁷ The trend toward a more flexible framework manifested as early as the late nineteenth and early twentieth centuries in the judicial willingness to imply obligations into construction and design contracts based on customs, usages, and other characteristics specific to the industry. 18 In some of the most influential early cases, courts imposed implied representations and duties of disclosure on project owners based on the obligations of good faith and fair dealing under industry circumstances.¹⁹

^{13.} See Legacy Builders, LLC. v. Andrews, 335 P.3d 1063, 1068, 1070 (Wyo. 2014); Plante, 103 N.W.2d at 299; Jacob & Youngs, Inc., 129 N.E. at 891-92.

^{14.} See King v. Duluth, M & N Ry. Co., 63 N.W. 1105, 1107 (Minn. 1895); see also 1 BRUNER & O'CONNOR, supra note 7, at § 2:138 (discussing the impact of a subcontractor's mistake on a prime bid).

^{15.} See Corneill A. Stephens, Abandoning the Pre-Existing Duty Rule: Eliminating the Unnecessary, 8 HOUS. BUS. & TAX L.J. 355, 359-63 (2008); Hazel Glenn Beh, Allocating the Risk of the Unforeseen, Subsurface and Latent Conditions in Construction Contracts: Is There Room for the Common Law?, 46 KAN. L. REV. 115, 120-24 (1997). See generally Lingenfelder v. Wainwright Brewery Co., 15 S.W. 844, 846-47 (Mo. 1891) (discussing the policy rationale underlying the pre-existing duty rule and a finding against new consideration).

^{16.} See CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 135-54.

^{17.} See, e.g., W. States Constr. Co. v. United States, 26 Cl. Ct. 818, 826 (Ct. Cl. 1992) (holding that a contract specification to wrap metallic pipe did not necessarily apply to a certain class of metal pipe considering evidence of industry meaning); Jake C. Byers, Inc. v. J.B.C. Invs., 834 S.W.2d 806, 810-20 (Mo. Ct. App. 1992) (interpreting a contractual requirement "to fill" a sewage lagoon); see also Travelers Cas. & Sur. Co. v. United States, 75 Fed. Cl. 696, 705-08 (Fed. Cl. 2007) (contrasting the classical and neoclassical approaches to contract interpretation).

^{18.} See, e.g., Wells Bros. Co. v. United States, 254 U.S. 83, 86-87 (1920); Guerini Stone Co. v. P.J. Carlin Constr. Co., 248 U.S. 334, 344-45 (1919); United States v. A. Bentley & Sons Co., 293 F. 229, 239-41 (S.D. Ohio 1923); Bates & Rogers Constr. Co. v. Bd. of Com'rs, 274 F. 659, 661-62 (N.D. Ohio 1920). See generally CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 44-49 (discussing the history of implied warranties and obligations generally and in the construction industry).

^{19.} See, e.g., United States v. Atl. Dredging Co., 253 U.S. 1, 11-12 (1920); United States v. Spearin, 248 U.S. 132, 137-38 (1918); MacKnight Flintic Stone Co. v. Mayor of New York, 54 N.E. 661, 664-65 (N.Y. 1899); Bentley v. State, 41 N.W. 338, 344-45 (Wis. 1889).

Construction industry cases have also offered courts some of the best opportunities to refine principles applicable to subcontract relationships.²⁰ Courts have often resisted subcontractor assertions of third-party beneficiary status under contracts between other participants in a construction project.²¹ The cases have also regularly addressed whether a general contractor can sponsor a claim against a project owner on behalf of a subcontractor.²² Another issue especially significant to construction industry subcontracts involves the interpretation and legal effect of clauses incorporating into a subcontract obligations, rights, or other terms from related contracts.²³

By studying contract law in action in the construction industry, in addition to learning advanced contract law as applied by the courts to the construction industry, students will also encounter innovative contract terms and structures that show them how construction lawyers react and adapt to evolving contract law developments. Section I.B. further explores this aspect of a construction law course.

Tort principles also present and inform a rich assortment of industry disputes and practices. Construction activity, of course, often results in serious personal injury, death, and property damage, frequently in situations that implicate multiple defendants.²⁴ Sorting out whether or on what theory tort law

^{20.} See Adrian L. Bastianelli III, Construction Subcontracting: A Comprehensive Practical and Legal Guide, CONSTR. LAW., Summer 2014, at 47; CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 65.

^{21.} See, e.g., John V. Burch, P.C., Third-Party Beneficiaries to the Construction Contract Documents, CONSTR. LAW., Apr. 1988, at 1, 23; see also Benton T. Wheatley & Jessica Neufeld, The Universal Applicability of Pass-Through Claims to All Parties to a Construction Project, CONSTR. LAW., Winter 2012, at 12, 12 (discussing pass-through claims as a way for subcontractors and other participants to overcome privity issues and recover when not parties to the contract).

^{22.} See 6 BRUNER & O'CONNOR, supra note 7, at § 19:25 (discussing the Severin doctrine as a limit to liquidating [or pass-through] agreements); Allen L. Overcash, Subcontractors and Suppliers, in FORUM TEXTBOOK, supra note 6, at 283, 307-13 (also discussing the Severin doctrine and barriers to subcontractor claims); Wheatley & Neufeld, supra note 21, at 12 ("The overwhelming majority of cases concerning pass-through claims involve a subcontractor as the damaged party, a general contractor as the intermediary, and an owner as the responsible party.").

^{23.} See generally Stanley P. Sklar, A Subcontractor's View of Construction Contracts, CONSTR. LAW., Jan. 1988, at 1, 18-19; CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 66-67.

^{24.} See infra notes 134-40 and accompanying text.

should afford remedies in these situations can offer exceptional opportunities to expand students' understanding of tort law issues and policies. Circumstances at a project site can test the limits of duty and foreseeability under negligence law, as when the contractual obligations of a project participant are asserted as the basis for a tort duty of care owed to those not parties to the contract.²⁵ Interdependent construction industry relationships also generate novel theories of negligent misrepresentation.²⁶ Design professional services give rise to some intriguing tort claims based on the foreseeable consequences that the acts and omissions of designers may have for many other project participants or on the overarching authority that design professionals sometimes possess.²⁷ Claims arising from industry relationships sometimes combine theories of contract liability with related tort theories, such as misrepresentation, fraud, and interference with prospective business advantage.²⁸ Damage claims for harm arising from allegedly defective equipment, materials, and components incorporated into a construction project sometimes strain the boundaries of strict liability.²⁹ Circumstances unique to construction activity also lead to interesting opportunities for punitive damage claims.³⁰

^{25.} See, e.g., Thompson v. Gordon, 948 N.E.2d 39, 42-43 (III. 2011); Caldwell v. Bechtel, Inc., 631 F.2d 989, 992, 1002-03 (D.C. Cir. 1980); see also infra notes 143-60 and accompanying text.

^{26.} See Ossining Union Free Sch. Dist. v. Anderson LaRocca Anderson, 539 N.E.2d 91, 91-92 (N.Y. 1989).

^{27.} See Shiva S. Hamidinia, The Misadventures of Shared Design Risk in the New Design-Build World: Managing Design Risk and Responsibility on Federal Design-Build Projects, CONSTR. LAW., Spring 2018, at 7, 9-10; Carl J. Circo, When Specialty Designs Cause Building Disasters: Responsibility for Shared Architectural and Engineering Services, 84 NEB. L. REV. 162, 179-92 (2005); Marc M. Schneier, Tortious Interference with Contract Claims Against Architects and Engineers, CONSTR. LAW., May 1990, at 3, 3; see also infra notes 148-62 and accompanying text (providing a more in-depth discussion of the theories of liability asserted against design professionals).

^{28.} See, e.g., J & S Servs., Inc. v. Tomter, 139 P.3d 544, 546 (Alaska 2006).

^{29.} See, e.g., Com. Distrib. Ctr., Inc. v. St. Regis Paper Co., 689 S.W.2d 664, 666-67, 669-70 (Mo. Ct. App. 1985). See generally Justin Sweet & Marc M. Schneier, Construction Law for Design Professionals, Construction Managers, and Contractors 86-88 (2015); Thomas F. Icard, Jr. & Wm. Cary Wright, Sick Building Syndrome and Building-Related Illness Claims: Defining the Practical and Legal Issues, Constr. Law., Oct. 1994, at 1, 29-30; Brian M. Golden, Strict Liability Applied to the Homebuilder: A Defect in the Law of Defective Products, Constr. Law., Oct. 1994, at 11, 11-12

^{30.} See 6 BRUNER & O'CONNOR, supra note 7, at § 19:4.

addition, most construction law courses cover the special aspects of the economic loss rule of tort law in construction industry cases.³¹

Construction activity and industry relationships also frequently present challenging questions of indemnity, insurance coverage, joint liability, and contribution among tortfeasors.³² Especially complex questions arise with claims implicating the acts and omissions of multiple project participants.³³ Personal injury, property damage, and other tort claims often present difficult coverage issues under policies insuring against commercial general liability,³⁴ property damage,³⁵ and other risks.³⁶ These situations afford excellent opportunities to explore these aspects of tort law as part of a more complete picture of construction law practice. Furthermore, with tort as much as with contract, a special attribute of a construction law course is, again, its utility in illustrating for students not only how an area of law applies to specific circumstances in the construction industry, but also how industry participants and their legal counsel react and

^{31.} See generally A. Holt Gwyn & Luke J. Farley, Sr., The Economic Loss Rule in Construction Law, in FORUM TEXTBOOK, supra note 6, at 653.

^{32.} See generally James S. Schenck, IV & Kelli E. Goss, Liability for Construction Defects That Result from Multiple Causes, 9 Am. COLL. CONSTR. LAWS. J. 45, 47 (2015).

^{33.} See id. at 45-46.

^{34.} See, e.g., Joseph A. Cleves Jr. & Richard G. Meyer, CGL Policies in the Construction Industry: Emerging Consensus and Coping Strategies, CONSTR. LAW., Fall 2015, at 12, 12-13; Steven G.M. Stein & Jean Gallo Wine, The Illusions of Additional Insured Coverage, CONSTR. LAW., Spring 2014, at 14, 14-15.

^{35.} See generally Amanda Anderson & Charles E. Comiskey, Make Sure You're Covered: Insurance for Natural Disasters, CONSTR. LAW., Fall 2019, at 16, 20 (discussing insurance coverage for natural disasters and "[t]he design/construction defect exclusion"); Daven G. Lowhurst & Daniel D. McMillan, Unshrouding the Mysteries of Builder's Risk Insurance, Part 1: The Basics and Beyond, CONSTR. LAW., Summer 2016, at 32, 32-33 (discussing builder's risk insurance); Mark M. Bell et al., Confronting Conventional Wisdom on Builders Risk: From Named-Insured Status to Concurrent Causation, CONSTR. LAW., Fall 2011, at 15, 15 (distinguishing between builder's risk insurance and other insurance policies addressing liability).

^{36.} See, e.g., Wendy E. Scaringe, Cargo Insurance and Construction Delay Risk, CONSTR. LAW., Fall 2018, at 34, 34; Elizabeth C. Josepfhs, Insurance and Risk Management in the Construction Industry: The Case for Decennial Liability Insurance, CONSTR. LAW., Winter 2014, at 15, 15-22; Stephen D. Palley & Arlan D. Lewis, Subrogation Waivers, CONSTR. LAW., Fall 2011, at 6, 6; Ava J. Abramowitz, Professional Liability Insurance in the Design/Build Setting, CONSTR. LAW., Aug. 1995, at 3, 3-4.

adapt to the law, such as through industry practices concerning insurance and indemnities as risk management devices.³⁷

Litigation and alternative dispute resolution practices, of course, represent other key aspects of construction law. In their first-year courses, as well as in some upper-level core courses, students learn basic principles concerning claims, defenses, and appeals in judicial proceedings, and they study many other fundamental aspects of litigation, such as civil procedure and the law of evidence. They may also be introduced to alternative dispute resolution processes. Those courses provide the necessary foundation, but because construction projects give rise to some of the most complex commercial disputes lawyers handle, future construction lawyers need to understand the nature of construction industry disputes at a more granular level. Consequently, construction industry disputes offer particularly good material for teaching about legal advocacy in the broadest sense.

In learning about construction industry litigation, students encounter many advanced problems of civil procedure.³⁸ They will likely read cases that highlight problems associated with complex, document-intensive discovery.³⁹ Litigating construction disputes also regularly gives rise to difficult challenges of proof and problems under the law of evidence.⁴⁰ Additionally, establishing liability for and defending against claims concerning construction and design defects, delays, unforeseen circumstances, and cost overruns often requires

^{37.} See generally Deborah Griffin, Insurance and Bonds, in FORUM TEXTBOOK, supra note 6, at 557, 557-68; William R. Allensworth & Matthew C. Ryan, Construction Safety, in FORUM TEXTBOOK, supra note 6, at 393, 417-23.

^{38.} An industry dispute over a forum-selection clause made its way to the U.S. Supreme Court relatively recently. *See* Atl. Marine Constr. Co. v. U.S. District Court, 571 U.S. 49, 52-55 (2013).

^{39.} See generally Christopher C. Whitney, "Rediscovering" the Rules of Discovery in Construction Litigation, 1 AM. COLL. CONSTR. LAWS. J. 1, 1-2 (2007); Eric A. O. Ruzicka & Kate Johnson, Constructing a Successful E-Discovery Strategy: Foundational Principles and Building Blocks, 12 AM. COLL. CONSTR. LAWS. J. 23, 24-25 (2018); Karen A. Denys & Michael A. Hornreich, Spoliation: Turning the Tide to Your Advantage, CONSTR. LAW., Spring 2015, at 5, 5.

^{40.} See generally Stephen A. Hess & Allison T. Mikulecky, Damages, in FORUM TEXTBOOK, supra note 6, at 717, 728-43; Richard J. Tyler, Defective Construction, in FORUM TEXTBOOK, supra note 6, at 611, 611-15.

mastery of technical data and complicated scientific evidence.⁴¹ Furthermore, these cases provide an especially close look at how lawyers use experts; deal with expert reports and dueling experts; and assess, present, and challenge expert testimony.⁴²

Special industry characteristics have also led courts to adopt distinct principles governing the measure and proof of damages.⁴³ Appellate decisions in construction industry cases have contributed to developments in the law of remedies, including restitution and the right to terminate or reform contracts.⁴⁴ The maze of construction lien statutes throughout the country presents yet another specialized aspect of construction litigation.⁴⁵ Courses also frequently explore, at least to some extent, the administrative claims and processes established under federal and state law governing public projects.⁴⁶

^{41.} See, e.g., Paul L. Stynchcomb et al., Preparing and Presenting Loss of Labor Productivity Claims: Analysis of the Methodologies with Two Exemplars, CONSTR. LAW., Summer 2020, at 18, 18-19 (2020); Wendy Kennedy Venoit & Kenji Hoshino, Follow the Money: Interpretation and Evaluation in a Forensic Schedule Analysis, CONSTR. LAW., Winter 2019, at 15, 15.

^{42.} See, e.g., Shelly L. Ewald & Julia M. Fox, Introduction of Construction Scheduling Expert Testimony: An Overview of the Current Standards in Federal and State Courts and Administrative Boards, CONSTR. LAW., Fall 2017, at 26; Venoit & Hoshino, supra note 41, at 15; Christopher J. Heffernan et al., Defending and Asserting Daubert Challenges in Construction Disputes, CONSTR. LAW., Spring 2012, at 6; Jeffrey P. Aiken, Construction Experts and Res Ipsa Loquitor: Bridging the Evidentiary Gap, CONSTR. LAW., Fall 2010, at 22.

^{43.} See, e.g., Julian Bailey & Stephen A. Hess, Delay Damages and Site Conditions: Contrasts in US and English Law, CONSTR. LAW., Summer 2015, at 6, 15 (discussing differing site conditions clauses, under which contractors may seek relief when performance of their promise proves to be more difficult or time-consuming than initially anticipated); John H. Dannecker et al., Recovering and Avoiding Consequential Damages in the Current Economic Climate, CONSTR. LAW., Fall 2010, at 28, 28-31; Hess & Mikulecky, supra note 40, at 717.

^{44.} See generally Bruner & O'Connor, supra note 7, at §§ 18:32-18:50, 19:35-19:43.

^{45.} See, e.g., Eileen M. Diepenbrock, Mechanic's Liens, in FORUM TEXTBOOK, supra note 6, at 529, 529-34.

^{46.} See generally, e.g., James F. Nagle, Public Construction Contracting, in FORUM TEXTBOOK, supra note 6, at 759, 804-06; James F. Nagle, A Primer on Prime-Subcontractor Disputes Under Federal Contracts, CONSTR. LAW., Winter 2009, at 39; Joshua I. Schwartz, Public Contracts Specialization as a Rationale for the Court of Federal Claims, 71 GEO. WASH. L. REV. 863, 863-64, 874-75 (2003); Jared Cohane & Peter J. Martin, The Modern Problem of Limitless Liability in Public Contracting Afforded by the Ancient Doctrine of Nullum Tempus Occurrit Regis, 7 AM. COLL. CONSTR. LAWS. J. 65, 66, 73-74 (2013).

Construction law courses generally devote at least as much attention to alternative dispute resolution as to litigation because the construction industry relies so extensively on mediation, arbitration, and other alternatives for dealing with claims and other disputes.⁴⁷ At a minimum, students will learn why so many construction industry participants and their lawyers prefer alternative dispute resolution options over litigation.⁴⁸ They may explore the advantages and disadvantages of a range of procedures, including stepped dispute processes that begin with informal conferences among on-site personnel, then continue as necessary up through higher management levels and on to designated third-party neutrals, before moving to a more formal stage such as nonbinding mediation as a condition precedent to arbitration or litigation.⁴⁹ Some courses will cover voluntary settlement negotiations strategies and techniques.⁵⁰ Students will likely study some special characteristics and challenges of construction industry mediation and arbitration.⁵¹ Students will also learn about contemporary movements toward more efficient dispute resolution via dispute review boards, as well as more

^{47.} See James P. Groton et al., Dispute Resolution Processes, in FORUM TEXTBOOK, supra note 6, at 587, 590-91; Don W. Gregory & Peter A. Berg, Construction Lawyer: Problem or Problem Solver? The Need for Cost-Effective Dispute Resolution in the Construction Industry, CONSTR. LAW., Fall 2013, at 16.

^{48.} See Gregory & Berg, supra note 47, at 16-19; Philip L. Bruner, Rapid Resolution ADR, CONSTR. LAW., Spring 2011, at 6, 6; Allen L. Overcash, Introducing a Novel ADR Technique for Handling Construction Disputes: Arbitration, CONSTR. LAW., Winter 2015, at 22; Thomas J. Stipanowich, Managing Construction Conflict: Unfinished Revolution, Continuing Evolution, CONSTR. LAW., Fall 2014, at 13, 13. But see James P. Wiezel, Cost-Effective Construction Arbitration, CONSTR. LAW., Spring 2011, at 15, 15-16 (discussing the benefits of arbitration but noting that it has come under scrutiny even within the construction industry).

^{49.} See, e.g., Groton et al., supra note 47, at 590-602.

^{50.} See generally Adrian L. Bastianelli III et al., Strategies for Successfully Navigating Cultural Differences in Construction Negotiation and Mediation, CONSTR. LAW., Spring 2020, at 11.

^{51.} See, e.g., Philip L. Bruner, Streamlining Construction Arbitration: Reducing the Peril of "Double Jeopardy" in Dual-Track Proceedings, CONSTR. LAW., Fall 2018, at 7; Tamara J. Lindsay, Compelling Arbitration By and Against Nonsignatories, CONSTR. LAW., Summer 2016, at 16; Daniel E. Toomey & Susan M. Euteneuer, The Arbitrators Have Decided the Construction Dispute: What Do I Do Now?, CONSTR. LAW., Spring 2012, at 20; Richard J. Tyler, Discovery in Arbitration, CONSTR. LAW., Winter 2015, at 5, 11-12, 15-16; Paul T. Milligan, Who Decides the Arbitrability of Construction Disputes?, CONSTR. LAW., Spring 2011, at 23.

holistic and collaborative approaches such as integrated project delivery.⁵²

Beyond giving extensive attention to contract and tort law issues and dispute resolution practices, a construction law course will generally explore the industry's intersection with several other doctrinal topics. Construction projects, of course, figure prominently in land use regulation, real estate transactions, and secured financing.⁵³ Many relationships in the industry include significant intellectual property aspects.⁵⁴ Construction activity also implicates environmental law, climate change, and sustainability.⁵⁵ Construction lawyers must deal with many aspects of governmental regulation, some of which involve potential criminal liability.⁵⁶ They must also keep up with rapid advances in industry technology impacting legal relationships and risks.⁵⁷ In addition to these topics, the textbook promulgated by

^{52.} See, e.g., Groton et al., supra note 47, at 596; Christopher T. Horner II, Should Dispute Review Board Recommendations Be Considered in Subsequent Proceedings?, CONSTR. LAW., Summer 2012, at 17, 17-18; Howard W. Ashcraft, Jr., Negotiating an Integrated Project Delivery Agreement, CONSTR. LAW., Summer 2011, at 17; Andrew D. Ness, Neutral Evaluation: Another Tool in the ADR Toolbox, CONSTR. LAW., Fall 2020, at 5; Patricia D. Galloway, The Art of Allocating Risk in an EPC Contract to Minimize Disputes, CONSTR. LAW., Fall 2018, at 26.

^{53.} See Lorence H. Slutzky & Dennis J. Powers, The Owner's Role, in FORUM TEXTBOOK, supra note 6, at 35, 38-43, 57-60.

^{54.} See Carol J. Patterson & Timothy F. Hegarty, The Design Team's Role and Contracts, in FORUM TEXTBOOK, supra note 6, at 143, 175-80.

^{55.} See Carl J. Circo, Will Green Building Contracts Transform Construction and Design Law?, 43 URB. LAW. 483, 483-84 (2011); Ujjval K. Vyas & Edward B. Gentilcore, Growing Demand For Green Construction Requires Legal Evolution, CONSTR. LAW., Summer 2010, at 10, 10; Carl J. Circo, Using Mandates and Incentives to Promote Sustainable Construction and Green Building Projects in the Private Sector: A Call for More State Land Use Policy Initiatives, 112 PENN. ST. L. REV. 731, 732-34 (2008); Howard W. Ashcraft, Jr., CERCLA Arranger Liability: Emerging Risk for Environmental Consultants, CONSTR. LAW., Jan. 1994, at 42, 42.

^{56.} See, e.g., Gretchen M. Ostroff, The Commercially Useful Function Test and Penalties for Noncompliance with Project DBE Goals, CONSTR. LAW., Winter 2020, at 25, 28-29; Daniel D. McMillan et al., The Foreign Corrupt Practices Act in a Global Construction Industry: Corruption Risks and Best Practices, CONSTR. LAW., Winter 2018, at 6, 6; G. Christian Roux & John D. Hanover, Implied False Certification Liability Under the False Claims Act: How the Materiality Standard Offers Protection After Escobar, CONSTR. LAW., Winter 2018, at 16, 16; James J. Barriere & Michael L. Koenig, DBE Fraud: What Contractors Should Be Doing Now to Avoid Criminal and Civil Liability, CONSTR. LAW., Fall 2015, at 7, 7; Wayne DeFlaminis et al., An Ounce of Prevention: A Guide for Combating Fraud in Construction, CONSTR. LAW., Summer 2014, at 17, 17-18.

^{57.} See, e.g., Kimberly A. Hurtado, Technological Advances in Construction: Building Information Modeling (BIM) and Related Tools, in FORUM TEXTBOOK, supra note 6, at 809;

the American Bar Association's Forum on Construction Law includes chapters or substantial sections on safety, labor and employment law, contract administration, insurance, and suretyship.⁵⁸

This overview of subject-matter content confirms that a construction law course in the upper-level curriculum will effectively expose students to a range of legal topics at an advanced level. In that respect, construction law equals or exceeds other practice specialty courses. Even more important than that, by studying construction law, students encounter legal practice in a setting that features not only knowledge of multiple rules, principles, and procedures first introduced in the legal silos of foundational law school courses, but also the ability to apply those rules, principles, and procedures in an environment liberated from artificial legal categories. Specific to this Article's larger purpose, as Section I.B explains, a construction law course serves as an ideal vehicle for introducing students to complex commercial practice. In that way, the course offers valuable training even for students who may never represent clients engaged in relationships and disputes within the construction industry.

B. Preparing Students for Complex Commercial Practice

To use a phrase popular among professors who teach experiential courses, a construction law course teaches transferrable skills. This is especially so with reference to certain skills most needed by lawyers who represent clients in complex, multi-party, extended-duration commercial ventures—what I will call "complex commercial practice." Indeed, construction law arguably stands as one of the best ways to prepare law students for complex commercial practice. By focusing on what lawyers do in a complex commercial practice, and not simply what

Sasha Christian et al., Technology in Construction Claims Management, CONSTR. LAW., Fall 2020, at 18, 18; Jessica E. Courtway, Wearables, Augmented and Virtual Reality, Integrated Project Delivery, and Artificial Intelligence, CONSTR. LAW., Fall 2020, at 25, 25; Carl J. Circo, A Case Study in Collaborative Technology and the Intentionally Relational Contract: Building Information Modeling and Construction Industry Contracts, 67 ARK. L. REV. 873, 873-74 (2014).

^{58.} See FORUM TEXTBOOK, supra note 6.

specialty law they know, a construction law course can help students begin to understand how lawyers engaged in complex commercial practice fields can add the kind of value their clients most often seek. When students explore law practice in the circumstances of a relationship-rich business context such as the construction industry, they see what it means to think like their clients and those with whom their clients interact. What is even more important, they begin to appreciate why that way of thinking can be more essential in a complex commercial practice than thinking only like a lawyer. Doctrinal and theoretical courses, as essential and foundational as they are to a legal education, barely hint at the advising, structuring, collaborating, problem solving, and, above all, judgment skills lawyers must develop to effectively serve clients who engage in the most sophisticated commercial endeavors.

Construction lawyers, whether involved with transactional work or dispute resolution, must learn to practice law in the total circumstances in which their clients operate. Indeed, for these lawyers, the defining feature of their practice is, in a word, context. By studying law in a defined context in this sense, students can progress beyond a mastery of abstract legal principles and doctrine. They can begin to form a more coherent understanding of the ways in which the circumstances of a challenging human endeavor—in this case, designing and constructing the built environment—can influence the application and evolution of the general legal principles they have learned in foundational courses. Just as important, students can see how skilled lawyers help their clients adapt exchange relationships in response to the law, and how they manage and resolve legal conflicts and disputes effectively and efficiently in such settings.

No single course can do all this for every area of practice, but a construction law course provides an especially effective introduction to a lawyering process that highlights structuring and managing complex transactions and resolving the disputes such transactions generate. Studying construction law offers unparalleled advantages for pairing legal theory with practical skills, for balancing zealous advocacy with efficient risk management, and for harmonizing client-centered teamwork with independent legal judgment.

In particular, the circumstances in which clients plan and execute construction projects and in which conflicts often arise in the industry, with its high-risk, low-certainty environment, make construction law an ideal introduction to complex commercial practice. The legal aspects of the construction industry, when explored coherently, place students in a context-rich environment that gives them the opportunity to grasp, or at least to glimpse, what it means for a lawyer to bring value to a client team engaged in such settings. Through a construction law course, students can begin to appreciate that law must be applied, and lawyering skills must be practiced in the complete circumstances (the context) in which their clients operate rather than in the more abstract or generalized environments they encounter in their core courses. What construction lawyers know, and what a construction law course is especially adaptable to teach, is that to be effective in a complex commercial practice, lawyers must become more than legal technicians or theorists; they must be trustworthy advisers who function as part of a client team, and they must become adept at employing the law both to help clients achieve their objectives and to manage and resolve conflicts.

A construction law course proves especially useful to introduce students to these skills essential to a complex commercial practice:

- structuring legal relations to accommodate the divergent and often conflicting interests of multiple parties engaged in a collaborative process;
- negotiating contract terms to allocate risks realistically and efficiently;
- coordinating a network of legal relationships in a transactional environment governed by a series of interrelated contracts;
- managing high-stakes risks under circumstances of constant change and low certainty;
- advising clients as they navigate challenges and conflicts inherent in complex commercial endeavors and learning to anticipate and avoid or minimize disputes when possible and to resolve them realistically when they do materialize (preferably before they become legal battles); and

• exercising judgment that balances legal expertise with the client's business objectives.

Basic aspects of a construction law practice converge in ways that facilitate these learning objectives. Pedagogically, three of the industry's defining characteristics stand out in this regard: (1) its project delivery systems and pricing conventions; (2) its highly developed contractual risk management devices; and (3) its innovative dispute resolution practices. To illustrate, the following paragraphs focus on aspects of these characteristics that receive substantial attention in most construction law courses. While other course components also bear on the skills listed above, discussing these selected elements will suffice to demonstrate the point.

1. Exploring Project Delivery Systems and Pricing Conventions

Teaching about project delivery systems, a topic commonly introduced early in most construction law courses, can be an especially effective way to orient law students toward complex commercial practice. The network of relationships, contracts, and processes that characterize even a relatively minor construction project will likely mystify the uninitiated student. When understood by reference to the distinct objectives, incentives, and expertise of the participants and the dynamic circumstances of a typical construction project—that is, when viewed in the industry context—students learn that success for such a daunting undertaking requires carefully devised contractual structures, which the industry knows as "project delivery systems." 59

Beginning with the background of the distinct perspectives of the key participants in a construction project, students learn to appreciate the challenge of structuring, negotiating, and orchestrating the interdependent relationships involved. They can see that the contracts themselves, along with applicable legal principles, especially those based on contract and tort law, constitute merely raw materials for the lawyers to use to help facilitate client objectives. In dealing with alternative project

^{59.} See generally Ross J. Altman, Project Delivery Systems, in FORUM TEXTBOOK, supra note 6, at 63.

delivery systems, construction lawyers must understand not only their own clients' business environment and objectives, but they must also recognize the totality of circumstances that affect the other project participants and even others, such as governmental agencies and the public. Students will gradually grasp this lesson by comparing and contrasting the legal relationships and incentives established in different ways by the most commonly recognized project delivery systems (probably along with several variations): design-bid-build; design-build; multiple prime contractors; construction management (agency and at-risk); program management; turnkey; public-private partnerships; and integrated project delivery.⁶⁰

The process of learning about project delivery systems may start by exploring an owner's core interests in project quality and functionality in addition to achieving completion on time and within budget.⁶¹ This is, however, only a first step because students must then come to understand that contractual arrangements that advance any one of the owner's key objectives can compromise the owner's other interests and can also implicate the interests of other project participants.⁶² Design professionals, general contractors, trade contractors, and suppliers, while always mindful of the owner's focus on quality, cost, and schedule, add other critical considerations to the mix. Each of these participants must balance the need for contractual arrangements that clearly define scope of service and scope of work with suitable compensation and risk management schemes. Whether working directly or indirectly for the project owner, they expect to undertake defined risks, but only to the extent they can control those risks and be compensated accordingly. Each of these project participants, however, functions within distinct circumstances.

Architects and engineers typically expect a degree of independence in performing their design and consulting roles, but they also want to minimize the liability risks associated with the

^{60.} *Id.* at 65-96 (featuring comparative assessments of project delivery systems based on selection factors and risk factors relevant to each).

^{61.} See id. at 63-64; Slutzky & Powers, supra note 53, at 35.

^{62.} See generally Ross J. Altman, Participants in the Design and Construction Process, in FORUM TEXTBOOK, supra note 6, at 17, 32-33.

control they exercise.⁶³ Design professionals, therefore, may seek contractual terms that objectively define deliverables, disclaim involvement with construction means and methods, and preserve the opportunity for additional compensation when unanticipated complications arise.

The owner's principal partner at the project site, which may be a general contractor, design-build firm, or construction manager, agrees to assume varying degrees of responsibility for project quality, budget, and schedule, while shifting some of those risks to trade contractors, suppliers, and others who manage more or less distinct but overlapping scopes of work. All these frontline participants, operating from varying levels of bargaining strength, must worry about sequencing, payment security, supply chain problems, weather, labor, insurance coverages, and more. They often operate in highly competitive markets that may offer modest profit margins.⁶⁴ Construction lenders, insurers, and sureties, each constrained by their own underwriting guidelines and regulatory considerations, provide critical resources attended by requirements and influences that impact the other project participants in many different ways.⁶⁵

Students learn how the industry's continuously evolving experimentation with alternative project delivery systems offers a cafeteria of choices bearing on the competing risk profiles and business objectives of the project participants. They also eventually learn how different payment schemes, such as stipulated-sum, cost-plus, and guaranteed maximum pricing, interact with project delivery system choices. By working through the advantages and disadvantages of these variations and by learning how they can be modified for specific projects and participants, students begin to see what it means to structure contractual relationships, to negotiate a coherent network of interrelated contracts, and to coordinate interdependent activities, manage risks, and accommodate conflicting perspectives in

^{63.} See generally Patterson & Hegarty, supra note 54, at 143, 145-46, 168, 186-87.

^{64.} George Hedley, 9 Numbers You Need to Keep Your Company Profitable, CONSTR. BUS. OWNER (Nov. 2, 2011), [https://perma.cc/TG66-36HJ].

^{65.} See generally Altman, supra note 62, at 25-30.

^{66.} See generally Stephen A. Hess, Pricing Construction Contracts, in FORUM TEXTBOOK, supra note 6, at 255, 255-67.

service of a common goal. Understanding project delivery systems and payment arrangements, however, is just the beginning of the process that introduces students to lawyering in a complex commercial practice.

2. Contractual Risk Management Devices

In addition to studying these fundamental aspects of project delivery systems and compensation conventions, construction law students will also encounter a range of other critical contractual risk allocation and management devices that help bring to life such concepts as structuring and coordinating complex legal relationships and managing those relationships effectively and efficiently in circumstances in which multiple participants must navigate through changing conditions over an extended duration. Several common contract terms, and the spectrum of available approaches to them, have special pedagogic value.

Representations and warranties, for example, play important roles. Beyond express warranties, which may be the product of extended negotiations, contract law in the construction industry has evolved to imply into contractual relationships certain representations and duties based on industry circumstances, as well as on customs and practices.⁶⁷ As a result of this implication process, lawyers for project participants must carefully craft contracts, sometimes to confirm and to reinforce judicially implied terms and sometimes to alter or reverse them to the extent legally permissible.⁶⁸ In addition to representations and warranties, standard industry agreements allocate project risks in different ways, and experienced construction lawyers negotiate contract terms extensively and promulgate endless contractual variations.⁶⁹ Key provisions include indemnities, provisions that anticipate differing site conditions and other changed circumstances, regulated payment procedures and security,

^{67.} See CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 44-49.

^{68.} See, e.g., Slutzky & Powers, supra note 53, at 47-51 (discussing the ability to contractually limit the Spearin Doctrine).

^{69.} See generally Bruce Merwin, Contracting for Construction Projects, in FORUM TEXTBOOK, supra note 6, at 107.

insurance requirements, labor and employment matters, safety, environmental considerations, project financing, aspects of contract administration, and intricate provisions concerning disputes, defaults, and remedies.⁷⁰ In this way, scores of interconnected contracts ideally form an effective and efficient risk allocation and risk management roadmap for project success.

By exploring construction industry contracting practices in such detail, students learn how variations in negotiated terms can impact that intricate network. By analyzing court opinions addressing some of the recurring issues that these contractual relationships generate, students see how courts have adapted general principles from different areas of the law to apply in the construction industry context. The educational impact should be transformative, as students begin to see a convergence of law they first encountered in the neat categories of contract, tort, property, civil procedure, evidence, legislation and regulation, remedies, dispute resolution, and more. All these characteristics illustrate how a construction law course can introduce students to the transferrable skills necessary to succeed in a complex commercial practice.

3. Dispute Resolution Practices

If studying project delivery systems and compensation schemes functions as the logical place to begin to explore construction law as a complex commercial practice and covering common contractual risk management devices works to supplement with important discrete and interrelated details, then teaching about industry dispute resolution practices can serve as an especially suitable concluding step to the orientation process. Difficult problems and conflicts inevitably arise when multiple participants influenced by distinct perspectives and incentives play interdependent roles in a complex and risky venture of long duration. By delving into construction industry dispute resolution practices, students learn about processes for early detection and

^{70.} The textbook published by the American Bar Association's Forum on Construction, *Construction Law*, which is repeatedly cited throughout this Article, deals with all of these issues in a range of circumstances and from the perspectives of various project participants in multiple sections of several chapters. *See* FORUM TEXTBOOK, *supra* note 6.

efficient management of problems. Drawing on what they have already learned about the distinct perspectives and objectives of project participants, students can readily appreciate the advantages that privately selected neutrals with relevant industry experience and legal expertise can have over generalist judges.

Students will explore a range of effective devices, both informal and formal, for dealing with claims, disputes, and other problems that might otherwise destroy working relationships and derail projects. These include multi-step processes that may begin with informal meetings between on-site representatives and then gradually advance to higher-level decision makers within the affected organizations, and move on to referrals to third-party facilitators, often followed by mediation as a precondition to binding arbitration or litigation.⁷¹ Variations include standing neutrals, dispute resolution boards, minitrials, and other creative procedures.⁷² Students may also study contractual arrangements designed to incentivize collaboration in the best interests of the project.⁷³ With the benefit of experience over many decades, the industry has developed advanced processes for managing and resolving problems, claims, and disputes. Exposure to these practices teaches students how structuring legal relationships and crafting contractual processes for complex commercial undertakings can help anticipate and efficiently manage many of the problems that such transactions generate.

Depending on the instructor's objectives, a construction law course can take a variety of forms. Two leading textbooks offer frameworks for teaching a comprehensive survey course adaptable to different pedagogic formats.⁷⁴ Instructors primarily interested in introducing students to the full range of a construction law practice may simply assign most or all chapters for classroom review and discussion.⁷⁵ Alternatively, practice-oriented courses can serve the special purposes of upper-level

^{71.} See Groton et al., supra note 47, at 590-602; see supra note 49 and accompanying text.

^{72.} Id. at 592-602.

^{73.} See id. at 592-94.

^{74.} See FORUM TEXTBOOK, supra note 6, at iii-xx, xxix; SWEET & SCHNEIER, supra note 6, at iv-xix.

^{75.} See generally FORUM TEXTBOOK, supra note 6, iii-xx; SWEET & SCHNEIER, supra note 6, at v-xvii.

writing courses or can follow a simulation-based model of experiential learning.⁷⁶ In simulation courses, students can engage in mock contract and settlement negotiations, undertake drafting exercises at different levels of complexity, develop advice for hypothetical clients deciding on the project delivery system and compensation structure most appropriate to a specific project, weigh options for assessing and settling claims and disputes, and practice advocacy skills in trial and dispute resolution exercises. A problem-based course can concentrate on a range of litigation skills.⁷⁷ Instructors who wish to create their own courses can assemble excellent materials by drawing on Bruner and O'Connor on Construction Law⁷⁸ and the extensive practice articles in the two leading journals for construction lawyers: The Construction Lawyer, which is published by the American Bar Association's Forum on Construction Law;⁷⁹ and The American College of Construction Lawyers Journal.80 Additionally, experienced construction lawyers make excellent class guests to work with students in many ways.⁸¹

Overall, a construction law course serves both to explore a range of legal issues at an advanced level and to introduce students to lawyering in complex commercial practices. On these bases alone, more law schools should include construction law courses among their regular elective offerings. As Part II explains, another compelling reason supports investment in construction law in the legal academy.

II. THE CASE FOR SCHOLARLY ENGAGEMENT

Phil Bruner's outstanding contribution to this symposium accurately—perhaps even charitably—characterizes the legal academy's approach to construction law as "benign neglect." 82

^{76.} See, e.g., Melton, supra note 2, at 9.

^{77.} See Melton, supra note 2, at 9.

^{78.} BRUNER & O'CONNOR, supra note 7.

^{79.} CONSTR. LAW., [https://perma.cc/48A2-FFXW] (last visited Apr. 1, 2022).

^{80.} AM. COLL. CONSTR. LAWS. J., [https://perma.cc/M484-S3NC] (last visited Apr. 1, 2022).

^{81.} I have invited many such guests to my construction law classes over the years, with great success.

^{82.} Bruner, supra note 1, at 233.

That observation echoes a call he and a few others have raised for years. 83 In a thought-provoking overview of construction law written in 1998, Professor Thomas Stipanowich argued compellingly that the legal academy should recognize construction law as an important field for scholarly investigation.⁸⁴ Two years later, Professor Jay Feinman lamented that "there has been no sustained scholarly attention" given to construction industry contracts.⁸⁵ Not long after that, Professor Justin Sweet, the pioneer of construction law in the U.S. legal academy, complained of continuing scholarly neglect.⁸⁶ Similar circumstances exist within the legal academies in other countries.⁸⁷ During this symposium, however, Sir Vivian Ramsey's insightful account convincingly demonstrated how much has been done to advance construction law in the international academy and, by implication, how far U.S. law faculties have to go.⁸⁸ In 2012, a construction law forum in Melbourne, Australia reflected that British and Australian scholars and law faculties have done much to advance scholarly interest in the field in their countries.⁸⁹ Indeed, they are at least a generation ahead of the U.S. legal academy. 90 While U.S. legal scholars occasionally give attention to the construction industry, there is a shocking lack of any ongoing and coherent body of

^{83.} See, e.g., 1 BRUNER & O'CONNOR, supra note 7, at § 1:4; Philip L. Bruner, Construction Law and the American College of Construction Lawyers—A History, 1 AM. COLL. CONSTR. LAWS. J. 1, 4-5 (2007).

^{84.} Thomas J. Stipanowich, Reconstructing Construction Law: Reality and Reform in a Transactional System, 1998 WIS. L. REV. 463, 493-97, 575-76 (1998).

^{85.} Jay M. Feinman, Relational Contract Theory in Context, 94 NW. U. L. REV. 737, 747 (2000).

^{86.} Justin Sweet, Standard Construction Contracts: Academic Orphan, CONSTR. LAW., Winter 2011, at 38, 39.

^{87.} See Gerber, supra note 2, at 59, 61-63.

^{88.} See generally Sir Vivian Ramsey, Construction Law: The English Route to Modern Construction Law, 75 ARK. L. REV. 251 (2022) (discussing the history of construction law in England, the impact of English caselaw, the benefits of England's Technology and Construction Court, and the development of more efficient dispute resolution procedures).

^{89.} Matthew Bell & Paula Gerber, Passing on the Torch of Learning in the "Primordial Soup" of Construction Law: Reflections from the Construction Law Academic Forum, 2012, CONSTR. L. INT'L, Oct. 2012, at 26, 26-27.

^{90.} See John Uff, Construction Law—the First 25 Years, CONSTR. L. INT'L, Jan. 2013, at 40, 40-41.

construction law scholarship.⁹¹ As even a casual review of the resources cited in this Article suggests, publications authored and edited by practicing lawyers, rather than traditional legal scholars, dominate construction law literature.

This regrettable situation persists even while the construction industry increasingly offers a rich array of legal topics and policy issues ripe for academic study. My present purpose is not to contribute substantively to construction law scholarship, nor to offer a systematic catalog of construction law topics for academic projects; rather, I merely aim to identify some especially fertile areas for academic inquiry and, in that way, perhaps to stimulate greater scholarly interest in construction law and the construction industry. Not surprisingly, some of the topics and principles of greatest academic interest correspond to those emphasized in Part I as important from a pedagogic perspective.

The construction industry presents relationships and characteristics most obviously relevant to contract and tort law scholars. Even a modest construction project creates the kind of risks to persons, property, and fortunes that naturally implicate legal duties and rights founded in contract and tort law. Likening a construction site to a battlefield, one judge observed that construction often occurs in chaotic circumstances with "limited certainty of present facts and future occurrences." This Part will consider contract and tort topics in some detail before offering a much briefer note on other promising areas for research and scholarly analysis.

The industry's routine contractual characteristics, already noted in Part I, produce some of the lowest hanging fruit for scholarly investigation. Traditionally, most of the scores of participants in a construction project interact with several others while entering into formal contracts with only one other

^{91.} Although the paucity of construction law scholarship furnishes the premise for Part II, as citations to standard law review articles scattered throughout this Article attest, some legal academics have made scholarly contributions to the field. See generally, e.g., Beh, supra note 15; Stipanowich, supra note 84; Feinman, supra note 85; Thomas C. Galligan, Jr., Extra Work in Construction Cases: Restitution, Relationship, and Revision, 63 TUL. L. REV. 799 (1989). What has been written to date, however, barely scratches the surface.

^{92.} See generally notes 11-37 and accompanying text.

^{93.} Blake Constr. Co. v. C.J. Coakley Co., 431 A.2d 569, 575 (D.C. 1981).

participant.⁹⁴ Even the project owner, while usually party to several contracts, typically has only one counterparty to each contract involved.⁹⁵ Within this network of bilateral agreements, however, nearly every contracting party shares risks with several others who provide work or services in connection with the project under a separate contract.⁹⁶ Not only does this create a complex web of interdependent contracts, but each participant provides services and performs work over an extended project duration under constantly changing circumstances.⁹⁷ The challenge of rationally and efficiently structuring these relationships provides much to pique the interest of contract scholars.

In a fruitful coincidence, as U.S. contract law began to take on its modern shape beginning in the nineteenth century, the construction industry emerged as one of the most significant and contractually complex segments of the economy. This convergence fostered a reciprocal relationship in which emerging principles of contract law influenced exchange relationships in the construction industry, while evolving industry contracting practices in turn stimulated further developments in the judicial application of those principles. This pattern persists today as industry customs and practices responding to developing contract law prompt courts, and often legislatures as well, to continue

^{94.} See Altman, supra note 59, at 70-71 (discussing the design-bid-build project delivery system, which is the system most commonly used in the United States).

^{95.} See id. at 31, 70-71. Under traditional structures, the owner contracts separately with the lead design professional, with a general contractor or possibly with several prime contractors for different scopes of work (or with a construction or project manager), and also with the construction lender. See id. at 70-71; Altman, supra note 62, at 20-25.

^{96.} See Altman, supra note 62, at 32; BRW, Inc. v. Duffiey & Sons, Inc., 99 P.3d 66, 72 (Colo. 2004); see also CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 60-61 (discussing how the "acts and omissions of contracting parties often affect the interests of those who are not parties to the underlying contractual relationship," creating issues for third-party beneficiaries).

^{97.} CONTRACT IN INDUSTRY CONTEXT, *supra* note 12, at 63-64 (noting that "[u]nanticipated events... are particularly common and troublesome within the construction industry, where contractors, subcontractors, suppliers, and manufacturers make commitments to perform in a far-distant and uncertain future").

^{98.} See id. at 116.

^{99.} See id.

adapting contract law principles.¹⁰⁰ Those who engage intimately with construction disputes have frequently highlighted this phenomenon.¹⁰¹ But, as one economic case study notes with dismay, "scholars have devoted little attention to an industry—construction—that seems to offer valuable lessons about the organization of economic activity."¹⁰²

The interweaving of so many exchange relationships under high-risk circumstances of long duration offers an especially rich opportunity for putting alternative contract theories to the test. A thorough study of construction contract practices and disputes suggests a highly contextual notion of contract, one that, in keeping with Professor Speidel's conception, "focuses upon particular types of contracts within a relevant business or social setting rather than upon contracts in general."¹⁰³ In this way, rather than "just contracts, there are contracts for the sale or lease of personal and real property, construction, personal and professional services, . . . and the settlement of disputes." 104 My own recent work explores several theoretical lessons from industry contracting practices. 105 At the broadest level, I have suggested how the case law connects contract practices and disputes to such alternative theories as classical formalism, legal realism, neoclassical principles, economic analysis, relational theory, and neoformalism. 106

^{100.} See generally Stephen A. Hess, The Sanctity of Construction Contracts, 15 AM. COLL. CONSTR. LAWS. J. 1, 3-14 (2021); BRUNER & O'CONNOR, supra note 7, at §§ 2:1, 3:3.

^{101.} See, e.g., Paul Hardeman, Inc. v. Ark. Power & Light Co., 380 F. Supp. 298, 317 (E.D. Ark. 1974) (characterizing industry contracts as "a separate breed of animal"); BRW, Inc., 99 P.3d at 72 (noting the "networks of interrelated contracts" commonly involved in construction projects).

^{102.} William A. Klein & Mitu Gulati, Economic Organization in the Construction Industry: A Case Study of Collaborative Production Under High Uncertainty, 1 BERKELEY BUS. L. J. 137, 138 (2004).

^{103.} Richard E. Speidel, An Essay on the Reported Death and Continued Vitality of Contract, 27 STAN. L. REV. 1161, 1173 (1975).

^{104.} Id

^{105.} See CONTRACT LAW IN INDUSTRY CONTEXT, supra note 12, at 8-9; Circo, supra note 57, at 283-84; Carl J. Circo, The Evolving Role of Relational Contract in Construction Law, CONSTR. LAW., Fall 2012, at 16, 16; Carl J. Circo, Contract Theory and Contract Practice: Allocating Design Responsibility in the Construction Industry, 58 FLA. L. REV. 561 (2006).

^{106.} See CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 115-58. Although I have not observed influences of or implications for the critical legal theory school, it would

While each of these theories finds some degree of support among the industry cases and its contracting practices, I find the implications for relational contract theory especially intriguing.¹⁰⁷ In contrast to most other conceptions of contract law, which promote an overarching framework of rules for recognizing, effectuating, and regulating discrete transactions governed by express agreements, relational contract takes into account the complete circumstances in which the contracting parties operate. 108 Under relational contract theory, trade customs and usage, along with a range of behavioral factors, call for the adoption of legal principles far more flexible than the fixed rules that both the classical and neoclassical frameworks seek to apply more or less uniformly to all contractual dealings. 109 With a focus on preserving exchange interactions, some iterations of relational contract notions encourage courts to fill gaps in incomplete contracts and to derive the norms that govern the parties' relationship from all relevant circumstances. 110 Relational theory promotes the kind of contextual approach that would have a court be "responsive to the realities of the particular contract in context."111 Construction industry contracts often display highly relational characteristics, such "as provisions anticipating changed circumstances during the course of the performance period, procedures for making equitable adjustments to the project budget and schedule, and comprehensive claims and dispute management procedures designed to maintain the relationship in the face of disagreement between the parties."112 Relational contract scholarship can benefit from further investigation and assessment of both contract disputes and contract practices in the construction industry.

be interesting to learn how that scholarly perspective would assess contract practices and cases from the construction industry. Legal problems in residential construction and affordable housing may suggest promising places to start because our legal and economic systems can seem blind to consumer protection issues and related legislative policies tend to promote and protect the status quo for business interests and the affluent.

^{107.} Circo, supra note 57, at 873-874; Circo, supra note 105, at 16.

^{108.} See CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 119-20.

^{109.} See id.; Galligan, supra note 91, at 810-16.

^{110.} See, e.g., Richard E. Speidel, The Characteristics and Challenges of Relational Contracts, 94 Nw. U. L. Rev. 823, 827, 827 n.23 (2000).

^{111.} Speidel, supra note 103, at 1173.

^{112.} CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 120.

Proponents of alternative schools of contract theory can also find much in the construction industry cases, dispute patterns, and contracting practices relevant to their perspectives. Limited offerings in the law and economics literature demonstrate the potential for economic analysis critiquing and explaining judicial approaches to construction contract disputes and many industry contracting practices. 113 For example, Richard Posner's discussion of a nineteenth century case determining liability for damage to a project under construction has been cited as a leading example of the efficiency principle of economic analysis at work in the courts.¹¹⁴ Competing contract theories, especially those based on economic analysis and neoformalism, can also be advanced to explain, justify, or question a range of holdings in construction contract cases, including those regarding: enforceability of liquidated damages, no-damage-for-delay, and conditional payment clauses; the recognition of the betterment and economic waste doctrines; and the use of different frameworks in contract interpretation. 115 In any case, much remains to be written both on how industry cases and practices reflect or contradict competing contract theories and how those cases and practices have or could inform contract theory.

In addition to their relevance to contract theory, industry cases and contracting practices raise many discrete issues of current interest to contract law scholars. Law review articles occasionally note significant industry cases and developments on these matters, although rarely in a way that acknowledges construction law as embracing a subspecialty of contract law. The academic literature and casebooks, however, do implicitly reflect the influence of industry cases in the evolution of several

^{113.} See, e.g., Klein & Gulati, supra note 102, at 138-143.

^{114.} See Jody S. Kraus, From Langdell to Law and Economics: Two Conceptions of Stare Decisis in Contract Law and Theory, 94 VA. L. REV. 157, 191-93 (2008) (noting, however, that Posner's "efforts to explain how legal rules and principles based on various notions of efficiency could justify the exercise of political coercion were entirely unsuccessful"). The reference is to Posner's analysis of Bentley v. State, 41 N.W. 338 (Wis. 1889) in RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 83 (3d ed. 1986).

^{115.} See generally CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 25-29, 54-58, 135-42.

^{116.} See generally Stipanowich, supra note 84, at 493-97.

contract principles. 117 Industry cases have been instrumental in expounding the law of substantial performance. 118 stemming from industry bidding practices virtually define the principle of reasonable reliance as a substitute consideration. 119 Construction contract disputes also sent early signals of the demise of the pre-existing duty rule. 120 Similarly, they set the stage for the acceptance of unilateral mistake as a Many construction cases figure prominently in evolving judicial attitudes toward binding arbitration clauses. 122 Other contract law issues, some already noted above for their relevance to contract theory, that figure prominently in specific topics of current academic interest extend to economic waste, betterment, liquidated damages, conditional payment provisions, termination for convenience rights, and the evolution of the implication process and judicial attitudes toward incomplete contracts. 123

^{117.} Many of the contract textbooks feature construction industry cases to demonstrate leading principles. *See, e.g., id.* at 494 (noting that "[i]n the typical first-year contracts course, construction cases are ubiquitous, and provide a rich source of doctrine and theory" and finding that nearly one in five cases in a popular text on contracts involved construction contracts); CONTRACT IN INDUSTRY CONTEXT, *supra* note 12, at 13 (discussing the influence of industry cases on substantial performance, unilateral mistake, third-party dispute resolution, and other contract law principles).

^{118.} CONTRACT IN INDUSTRY CONTEXT, *supra* note 12, at 13; *see, e.g.*, Clem Martone Constr., LLC v. DePino, 77 A.3d 760, 771-72 (Conn. App. Ct. 2013); W.E. Erickson Constr. Inc. v. Cong.-Kenilworth Corp., 503 N.E.2d 233, 237 (III. 1986); S. D. & D. L. Cota Plastering Co. v. Moore, 77 N.W.2d 475, 477-78 (Iowa 1956); Jacob & Youngs, Inc. v. Kent, 129 N.E. 889, 890-91 (N.Y. 1921).

^{119.} See, e.g., Drennan v. Star Paving Co., 333 P.2d 757, 759-60 (Cal. 1958). See generally CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 34-37 (discussing the importance of *Drennan* but noting its scarce application in areas beyond industry bidding).

^{120.} See Lingenfelder v. Wainwright Brewery Co., 15 S.W. 844, 848 (Mo. 1891); King v. Duluth, M & N Ry. Co., 63 N.W. 1105, 1107 (Minn. 1895).

^{121.} See Wil-Fred's Inc. v. Metro. Sanitary Dist., 372 N.E.2d 946, 950-51 (Ill. App. Ct. 1978); Rushlight Automatic Sprinkler Co. v. City of Portland, 219 P.2d 732, 751 (Or. 1950); Bd. of Regents v. Cole, 273 S.W. 508, 510-11 (Ky. Ct. App. 1925); Edwin W. Patterson, Equitable Relief for Unilateral Mistake, 28 COLUM. L. REV. 859, 884-85 (1928).

^{122.} See, e.g., C & L Enters., Inc. v. Citizen Band Potawatomi Indian Tribe of Okla., 532 U.S. 411, 418-20 (2001); Volt Info. Scis., Inc. v. Bd. of Trs., 489 U.S. 468, 474-76 (1989); Moses H. Cone Mem'l Hosp. v. Mercury Constr. Corp., 460 U.S. 1, 19-20 (1983); see also Commonwealth Coatings Corp. v. Cont'l Cas. Co, 393 U.S. 145, 147-50 (1968) (discussing the importance of impartiality among arbitrators and the need for arbitrators to disclose matters that could create the impression of bias).

^{123.} See CONTRACT IN INDUSTRY CONTEXT, supra note 12, at 25-29, 54-59, 138-54; Deborah S. Ballati & Marlo Cohen, Termination for Convenience Clauses: Are There

In many instances, the practice-oriented literature eclipses the legal scholarship in addressing significant issues of contract law. For example, practicing lawyers have authored much of what has been written about the special issues concerning subcontracting relationships. 124 They have also delved deeply into applications of the law of evidence to contract disputes, especially with reference to expert witnesses. 125 Similarly, the practice-oriented literature has dealt in great detail with the problems construction industry disputes commonly present relating to the measure and proof of damages, as well as on a range of contractual limitations on recoverable damages. 126 Practicing lawyers, more than legal academics, have documented the interesting story of how cases and contracting practices have addressed the differing site conditions problem that so frequently impacts construction projects. 127 Practice-oriented literature also accounts for some of the most comprehensive analyses of legislative and regulatory matters affecting construction contracts.¹²⁸ All of these topics are ripe for more scholarly investigation.

Limitations on Using Them?, 14 AM. COLL. CONSTR. LAWS. J. 1, 1 (2020); Joseph D. West & Michael B. Hissam, The Reasonableness of Liquidated Damages Provisions—Why Only the Look Back Approach Can Prevent Windfalls, 4 AM. COLL. CONSTR. LAWS. J. 1, 1 (2010); Julian F. Hoffar & Shelly L. Ewald, Liquidated Damages and the Freedom to Contract, 1 AM. COLL. CONSTR. LAWS. J. 1 (2007).

124. See, e.g., Anthony J. LaPlaca, On the Effective Use of Liquidating Agreements, CONSTR. LAW., Summer 2019, at 20, 20; Wheatley & Neufeld, supra note 21, at 12; William M. Hill & Mary-Beth McCormack, Pay-If-Paid Clauses: Freedom of Contract or Protecting the Subcontractor from Itself?, CONSTR. LAW., Winter 2011, at 26, 26.

125. See, e.g., Laura B. Arrigo & Samantha L. Brutout, Defining the Schedule Expert's Role, Scope, and Approach: Key Considerations for Coordination Between Attorneys and Experts, CONSTR. LAW., Fall 2017, at 36; Heffernan et al., supra note 42, at 6; Fredric L. Plotnick, Evidence Issues in Forensic Use of CPM Scheduling, CONSTR. LAW., Fall 2011, at 25; Aiken, supra note 42, at 22.

126. See, e.g., Benton T. Wheatley & Randy A. Canché, Navigating the Labyrinth of Consequential Damages in the Construction Industry: A History of and Legal Approaches to Living with Them, CONSTR. LAW., Summer 2013, at 6; Dannecker et al., supra note 43, at 28

127. See, e.g., Bailey & Hess, supra note 43, at 6; Kimberly A. Smith, Differing Site Conditions and Metcalf: Judicial Shifting of the Risks, CONSTR. LAW., Summer 2014, at 35.

128. See, e.g., Dean B. Thomson & Colin Bruns, Indemnity Wars: Anti-Indemnity Legislation Across the Fifty States, 8 AM. COLL. CONSTR. LAWS. J. 1, 1-2 (2014). See generally 5 BRUNER & O'CONNOR, supra note 7, at §16:1 (discussing the government's heavy regulation of construction in America at the federal, state, and local level, for safety, financial, and other reasons).

Beyond addressing such discrete contract law issues, legal scholars should analyze how the risk management strategies of construction industry participants and their lawyers impact contract law in action. Contract law, as established and proclaimed by legislatures, courts, and administrative agencies, functions more as the background against which contracting parties manage contractual relationships than as the rules that determine those relationships. 129 The practicing bar uses innovative contract provisions and structures to adjust and manipulate the rules of contract law. 130 In a 2011 article (tellingly published in the construction bar's leading journal rather than a traditional law review), Professor Sweet argued that legal academics should study and assess standard construction contracts.¹³¹ The ongoing evolution of project delivery systems presents an even more fruitful area for scholarly investigation, but contract scholars have given relatively little attention to these systems. 132 At a more granular level, construction lawyers constantly craft innovative contract terms and practices that can teach at least as much about how contract law functions as a social instrument as can any case, statute, or abstract theory. 133 In

^{129.} See generally supra notes 8-23 and accompanying text (discussing how construction cases have challenged the boundaries of contract principles and helped develop and refine contract law doctrines).

^{130.} See supra notes 8-23 and accompanying text; see also infra note 133 and accompanying text.

^{131.} Sweet, supra note 86, at 41.

^{132.} However, the practice literature regularly reports on developments in project delivery systems. See, e.g., Galloway, supra note 52, at 29; Justin L. Weisberg & Raymond M. Krauze, Opening Communication Lines: Evolving Project Delivery Methods to Promote Collaboration, CONSTR. LAW., Spring 2018, at 14; Howard W. Ashcraft Jr., The Transformation of Project Delivery, CONSTR. LAW., Fall 2014, at 35; Casey Halsey & William Quatman, Design-Build Contracts: Revisited, 25 Years Later, CONSTR. LAW., Spring 2014, at 5; Joseph A. Cleves, Jr. & Richard G. Meyer, No-Fault Construction's Time Has Arrived, CONSTR. LAW., Summer 2011, at 6; Barbara R. Gadbois et al., Turning a Battleship: Design-Build on Federal Construction Projects, CONSTR. LAW., Winter 2011, at 6; Peter C. Halls, Issues for Designers, Contractors, and Suppliers to Public Private Partnership Projects, CONSTR. LAW., Summer 2010, at 22; Joel W. Darrington & William A. Lichtig, Rethinking the "G" in GMP: Why Estimated Maximum Price Contracts Make Sense on Collaborative Projects, CONSTR. LAW., Spring 2010, at 29.

^{133.} See generally, e.g., Lauren P. McLaughlin & Shoshana E. Rothman, When Spearin Won't Work: How Contractual Risk Allocation Often Undermines This Landmark Ruling, CONSTR. LAW., Summer 2015, at 39, 44; Alex Iliff et al., The Shifting Sands of Contract Drafting, Interpretation, and Application, CONSTR. LAW., Spring 2012, at 31;

summary, contracting practices in the construction industry offer much that contract scholars should explore to shed light on the relationship between law and practice and about how the law interacts with human behavior in complex exchange relationships.

The construction industry also offers much material for tort scholars. Construction commonly involves risky activities leading to claims for damages when death, personal injuries, property damage, and economic losses result. Some recurring circumstances peculiar to the construction industry merit the special attention of the legal academy.

In addressing common negligence cases stemming from construction activities, a leading construction law textbook notes some special considerations. These include predictable instances in which negligence during construction causes injury or property damage. Most frequently, the victim is a worker or a person on the site who has some connection with the project. There are, however, also many cases involving victims not physically on the project site who are simply passing by when an incident occurs, and others involving trespassers. Negligence cases involving construction activity can present some interesting features for professors to highlight either in a Torts class, for example the trespasser cases, or in a Construction Law or

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Ashcraft, supra note 52, at 17; Kurt L. Dettman et al., Resolving Megaproject Claims: Lessons From Boston's "Big Dig", CONSTR. LAW., Spring 2010, at 5, 16.

^{134.} See, e.g., Lee Lewis Constr., Inc. v. Harrison, 70 S.W.3d 778, 781-82 (Tex. 2001) (wrongful death); see cases cited *infra* note 136; see also Allensworth & Ryan, supra note 37, at 393 (providing that "[t]he U.S. Bureau of Labor Statistics has cited its 'fatal four' leading causes of construction deaths as (1) falls, (2) struck by object, (3) electrocutions, and (4) caught-in/between" and estimating that fourteen deaths occur within the construction workforce per day).

^{135.} See Allensworth & Ryan, supra note 37, at 393.

^{136.} See id.; e.g., Jeffords v. BP Prods. N. Am., Inc., 963 F.3d 658, 661 (7th Cir. 2020); Scott v. Matlack, Inc., 39 P.3d 1160, 1162-63 (Colo. 2002); Lee Lewis Constr., Inc., 70 S.W.3d at 782.

^{137.} See cases cited supra note 136.

^{138.} See, e.g., Price v. Turner Constr. Co., 190 A.D.3d 435, 435-36 (N.Y. App. Div. 2021) (contractor and subcontractor were not liable for injuries when pedestrian tripped over protruding anchoring bolts on sidewalk); Coburn v. Whitaker Constr. Co., 445 P.3d 446, 448, 453 (Utah 2019) (contractor had no duty to warn pedestrian of danger presented by orange netting strung across trail); see cases cited infra note 139.

^{139.} Kessler v. Mortenson, 16 P.3d 1225, 1226, 1230 (Utah 2000) (applying attractive nuisance doctrine when child fell through hole on residential construction site); Hayes v.

Labor and Employment Law class, as when workers' compensation law impacts the nature or extent of liability of multiple defendants. However, the cases do not suggest a variation or adaptation of tort law specific to the construction industry context. For purposes of construction law, routine negligent injury and damage cases may hold academic interest primarily for what they can show about overlaps in related legal matters, including joint liability, vicarious liability, contribution, indemnification, insurance coverages, and safety statutes and regulations. However, the cases do not suggest a variation or adaptation of tort law specific to the construction industry construction law, routine negligent injury and damage cases may hold academic interest primarily for what they can show about overlaps in related legal matters, including joint liability, vicarious liability, statutes and regulations.

More promising areas for scholarly attention emerge when tort law intersects with contractual obligations in the construction industry. Some of the most theoretically engaging situations invoke the judicial gymnastics required to derive a tort duty of care from a contractual obligation. The construction industry presents some noteworthy examples of contractual terms creating special relationships that impose a tort duty of care independent from the contractual obligations. A contractual responsibility to perform construction services or work may impose a duty on the contracting party for the benefit of strangers to the contract. For example, the Court of Appeals for the D.C. Circuit held that a consultant retained by a project owner to provide safety engineering services to the owner owed a tort duty of care to an

D.C.I. Props.-D KY, LLC, 563 S.W.3d 619, 621-22 (Ky. 2018) (holding that sixteen-year-old trespasser who operated equipment on construction site was not entitled to protection of attractive nuisance doctrine); Lange v. Fisher Real Est. Dev. Corp., 832 N.E.2d 274, 276, 281-82 (Ill. App. Ct. 2005) (holding that taxi driver pursuing non-paying passenger onto construction site was entitled only to the limited duty owed to a trespasser).

^{140.} See generally Allensworth & Ryan, supra note 37, at 393.

^{141.} See Kessler, 16 P.3d at 1230; Hayes, 563 S.W.3d at 621; Lange, 832 N.E.2d at 283.

^{142.} See, e.g., Coleman v. BP Expl. & Prod., Inc., 19 F.4th 720, 727 (5th Cir. 2021) (applying principles of vicarious liability); Gables Constr., Inc. v. Red Coats, Inc., 228 A.3d 736, 739 (Md. 2020) (discussing principles of contribution and joint liability); W. C. Eng., Inc. v. Rummel, Klepper & Kahl, LLP, 934 F.3d 398, 399 (4th Cir. 2019) (distinguishing concepts of contribution, implied indemnity, and express indemnity in contractor's action against subcontractor); Eng'g & Constr. Innovations, Inc. v. L.H. Bolduc Co., 825 N.W.2d 695, 698 (Minn. 2013) (applying Minnesota's statute limiting enforceability of indemnification agreements in construction contracts); see also Schenck & Goss, supra note 32, at 1 (discussing the challenges of apportioning fault and damages); John G. Cameron, Jr., Construction Site Safety: Protecting the Worker/Protecting the Owner, 9 AM. COLL. CONSTR. LAWS. J. 2, 31 (2015).

^{143.} Circo, supra note 27, at 187-90.

on-site worker who suffered from silicosis as a result of working on the project. The court held that even though the worker's employer was directly responsible for the safety of its employees, the consultant's "superior skills and position" and its "ability to foresee the harm that might reasonably be expected to befall" the worker imposed a duty on the consultant "to take reasonable steps to prevent harm to appellant from the hazardous conditions" of the work site. Other cases impose on a project participant a duty to warn others of potential dangers or risks the project presents or to disclose to another information based on the participant's superior knowledge arising out of the performance of contractual duties.

Courts have been especially willing to derive a tort duty of care from contractual undertakings of design professionals. 148 Indeed, even when a client sues for damages allegedly caused by errors or omissions in the performance of services expressly covered by the contract between the client and the design professional, the case is at least as likely to proceed on a theory of professional negligence as on a breach of contract claim. 149 When the plaintiff is not the design professional's client, courts often opt to impose a tort duty of care rather than to accept an alternative theory recognizing the plaintiff as a third-party beneficiary of the design services contract. While the third-party beneficiary argument too often requires a strained interpretation of the contract, tort theory allows the court to recognize a special relationship between the plaintiff and the design professional on public policy grounds. 151

As discussed in much greater detail in Marc Schneier's article, published as part of this symposium, injured workers have often used the special-relationship analysis to assert claims against architects and engineers with whom the workers have no

^{144.} Caldwell v. Bechtel, Inc., 631 F.2d 989, 1002 (D.C. Cir. 1980).

^{145.} Id. at 997, 1001, 1001 n.21.

^{146.} See generally 3 BRUNER & O'CONNOR, supra note 7, at § 9:102.

^{147.} See generally id. at § 9:92.

^{148.} See Circo, supra note 27, at 186-87.

^{149.} See id. at 173, 177-79.

^{150.} See id. at 185-87, 237-38.

^{151.} See id.

contractual privity.¹⁵² As his account also explains—to a considerable extent—design professionals have reduced their exposure to such claims through carefully narrowing the scope of professional services included in their contracts, particularly by excluding any responsibility for project safety or construction means and methods and by disclaiming authority to order work stoppages.¹⁵³

Some close questions about the circumstances in which a contract creates a special relationship under tort law involve obligations concerning budget estimates, scheduling matters, and other aspects of project management and administration. ¹⁵⁴ These cases often call on courts to scrutinize the precise scope of the contractual responsibilities especially closely to determine whether public policy requires the contractually obligated party to observe a tort duty of care in favor of strangers to the contract. ¹⁵⁵ To protect against expanding theories of liability under design services contracts, lawyers representing design professionals may aggressively negotiate for express contractual limits on the client's damage liability, limits that courts sometimes hold to be unenforceable on policy grounds. ¹⁵⁶

The special-relationship theory may also be invoked in support of tort claims other than professional malpractice and negligence. Once again, some of the leading cases involve the contractual obligations of design professionals.¹⁵⁷ Design professionals who provide faulty information in the course of performing design services for a construction project may incur liability both to clients and non-clients for negligent misrepresentation when the design professional knows the plaintiff will rely on the information in connection with the

^{152.} See Marc M. Schneier, Design Professional Liability for Construction Worksite Accidents—How Arkansas Led the Way to a National Consensus, 75 ARK. L. REV. 381 (2022).

^{153.} Id. at 395-400.

^{154.} See generally Circo, supra note 27, at 180-90.

^{155.} See, e.g., Thompson v. Gordon, 948 N.E.2d 39, 45-48, 51-52 (Ill. 2011).

^{156.} Buck S. Beltzer & Melissa A. Orien, Are Courts Limiting Design Professionals' Ability to Limit Liability?, CONSTR. LAW., Spring 2010, at 17, 17-18.

^{157.} See generally Circo, supra note 27, at 173-77.

project.¹⁵⁸ In adopting the negligent misrepresentation doctrine, the Restatement of Torts explicitly references construction industry examples.¹⁵⁹ Some courts have even imposed strict liability for defective designs incorporated into a building, especially when the defendant functioned in a design-build capacity.¹⁶⁰

A design professional's involvement in a dispute between the designer's client and another participant may support a claim for tortious interference with contract or with prospective business advantage. A common arrangement for a project architect's role in contract administration amplifies this risk when the architect's duties under the owner's contracts with the architect and the general contractor require the architect's approval of, or other direct involvement with, the owner's decision to terminate the contractor for default. In addition to design professionals, other industry players are also susceptible to tortious interference claims. The tortious interference cases receive some attention in practice-oriented journals. The special construction industry circumstances involved should appeal to the academic community. Moreover, the different

^{158.} See id. at 182; e.g., Ossining Union Free Sch. Dist. v. Anderson LaRocca Anderson, 539 N.E.2d 91, 95 (N.Y. 1989).

^{159.} Restatement (Third) of Torts: Liability for Economic Harm \S 5, illus. 4, 15 (Am. L. Inst. 2020).

^{160.} See Circo, supra note 27, at 182-83; e.g., Com. Distrib. Ctr., Inc. v. St. Regis Paper Co., 689 S.W.2d 664, 669-70 (Mo. Ct. App. 1985).

^{161.} See SWEET & SCHNEIER, supra note 29, at 243-44.

^{162.} Carl J. Circo, Architect's Contract Administration, in FORUM TEXTBOOK, supra note 6, at 197, 219-20.

^{163.} See Kevin J. Gleeson & Mark L. McAlpine, Creative Collateral Claims Against Public Entities and Their Agents, CONSTR. LAW., Winter 2020, at 33, 34-35, 38 (discussing tortious interference claims brought by disappointed low bidders against owners and competitors contributing to the rejection of their bid); Anna Oshiro & Peter W. Hahn, Private Rights of Action for Procurement Violations, CONSTR. LAW., Fall 2015, at 17, 19-24; e.g., J & S Servs. v. Tomter, 139 P.3d 544, 545-46, 551 (Alaska 2006) (involving a disappointed contractor's suit against the state and a state procurement officer alleging intentional misconduct in awarding a contract).

^{164.} See, e.g., Mark J. Heley & Mark A. Bloomquist, *The Design Professional's Role in Termination of the Contractor*, CONSTR. LAW., Apr. 1997, at 3, 10; Schneier, *supra* note 27, at 3-4.

^{165.} See generally Circo, supra note 27, at 165-67.

frameworks courts use for assessing such claims invite greater academic assessment of the theories and defenses advanced. 166

As some of the theories of liability discussed above imply, the judicial practice of imposing a tort duty of care based on contractual obligations figures into a growing number of suits to recover damages when the acts or omissions of a project participant adversely affect the economic interests of others. 167 Because the economic interests of dozens or scores of project participants are intertwined with the responsibilities and activities of those with whom no contractual privity exists, construction projects present recurring circumstances of special relationships arguably sufficient to impose a tort duty of care to prevent economic harm. Not only do general contractors seek to recover economic losses attributable to the acts and omissions of project architects or engineers, but project owners seek to recover against subcontractors, suppliers, and manufacturers, while any number of subcontractors, suppliers, consultants, and end-users of the project sue each other when delays, disruptions, errors, and other problems adversely impact the project. 168 A great many of these cases implicate the economic loss rule of tort law, an especially popular topic among construction lawyers. 169

Turning then directly, but briefly, to the economic loss rule as applied in construction industry contexts, we find an issue that has not only received massive attention from practitioners, but also one that has engendered considerable interest among legal scholars.¹⁷⁰ The economic loss rule has been frequently explained

^{166.} Compare DiMaria Constr., Inc. v. Interarch, 799 A.2d 555, 560-64 (N.J. Super. Ct. App. Div. 2001), with Dehnert v. Arrow Sprinklers, Inc., 705 P.2d 846, 850-52 (Wyo. 1985).

^{167.} See Circo, supra note 27, at 178.

^{168.} See generally Patricia H. Thompson & Christine Dean, Continued Erosion of the Economic Loss Rule in Construction Litigation by and Against Owners, CONSTR. LAW., Fall 2005, at 36; Jay M. Feinman, Economic Negligence in Construction Litigation, CONSTR. LAW., Aug. 1995, at 34; Alvin M. Cohen & James W. Bain, Negligence Claims in Construction Litigation, CONSTR. LAW., Apr. 1988, at 3, 30-31.

^{169.} Twenty-five years ago, Professor Justin Sweet commented that he had vowed to resist the temptation to write on the economic loss rule issue in construction industry cases because of the extensive attention already devoted to the topic by that time in *The Construction Lawyer* journal alone. Justin Sweet, *A View from the Tower*, CONSTR. LAW., Jan. 1997, at 47, 47.

^{170.} See, e.g., Paul M. Hellegers, Making Sense of the Economic Loss Rule in Construction Cases: Does the Draft Restatement (Third) of Torts Help? Part Two, CONSTR.

as a device used to establish or defend the boundary between contract and tort and to guard against unlimited tort liability.¹⁷¹ Given the policy issues involved and the confusing and conflicting judicial approaches appearing in the industry cases, however, this popular topic begs for the kind of comprehensive and coherent analysis best suited to extended scholarly debate. The application of the economic loss rule to construction industry cases frequently brings to light unique considerations sometimes overlooked or inappropriately conflated by the courts.¹⁷² Despite the extensive body of scholarly work on the economic loss rule, the proper application of the rule specifically in the construction industry context merits further academic analysis.

Tort law suggests many additional areas for scholarly inquiry. A leading textbook for introducing construction law to architects, engineers, and construction professionals provides a good overview. Personal injury claims often invoke premises liability theories to support actions brought against project owners and general contractors on the basis of control over a project site. Injuries and damages attributable to defects in equipment, material, or components incorporated into a project sometimes pose interesting questions under product liability law or strict liability statutes. Several construction industry cases consider

LAW., Winter 2014, at 5; Paul M. Hellegers, Making Sense of the Economic Loss Rule in Construction Cases: Does the Draft Restatement (Third) of Torts Help? Part One, CONSTR. LAW., Fall 2013, at 23; Anthony L. Meagher & Michael P. O'Day, Who Is Going to Pay for My Impact? A Contractor's Ability to Sue Third Parties for Purely Economic Loss, CONSTR. LAW., Fall 2005, at 27; Feinman, supra note 168, at 34.

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^{171.} Sidney R. Barrett, Jr., Recovery of Economic Loss in Tort for Construction Defects: A Critical Analysis, 40 S.C. L. REV. 891, 894-97 (1989); Robert L. Rabin, Respecting Boundaries and the Economic Loss Rule in Tort, 48 ARIZ. L. REV. 857, 858-61 (2006); Circo, supra, note 27, at 190-91, 245-46.

^{172.} See Lawrence E. Leykam, The Viability of the Economic Loss Rule as a Defense to Third Party Claims for Negligent Misrepresentation Against Design Professionals, 13 AM. COLL. CONSTR. LAWS. J. 1, 8 (2019); Carl J. Circo, Placing the Commercial and Economic Loss Problem in the Construction Industry Context, 41 J. MARSHALL L. REV. 39, 42-43 (2007).

^{173.} SWEET & SCHNEIER, supra note 29, at 72-92.

^{174.} See James Duffy O'Connor, Additional Insured Coverage: The Why, the What, and the Wherefore, 11 Am. Coll. Constr. Laws. J. 1, 3-4 (2017).

^{175.} See Laurence S. Kirsch & Rebecca E. Rapp, Mold: An Evolving Issue in Design and Construction Defect Litigation, CONSTR. LAW., Spring 2003, at 5, 7; William R. Joyce & Patrick J. O'Connor, Curtain Wall Failures, CONSTR. LAW., Jan. 2000, at 22, 23; Golden, supra note 29, at 11-12.

whether or how violations of federal and state laws and regulations pertaining to safety and employment hazards, including the Federal Occupational Safety and Health Act, may be evidence of negligence or may otherwise support liability in tort.¹⁷⁶ I leave it to tort scholars to assess whether any of these topics, or others not mentioned here, may prove worthy of their attention.

In cataloguing substantive construction law issues with significant scholarly appeal, this review has so far dealt only with contract and tort law, where the most obvious gaps exist between the law in action and the legal academy. Many other construction industry topics deserve further scholarly investigation. Green building initiatives and other techniques for more sustainable design and construction practices suggest especially timely topics.¹⁷⁷ More broadly, questions about the relationship of the built environment as a whole to the challenges of climate change sustainability raise significant public considerations.¹⁷⁸ A topic deserving the attention of alternative dispute resolution scholars emerges from the practicing bar's reflections on the impact that the industry's preference for

^{176.} See generally 4A Bruner & O'Connor, supra note 7, at § 13:15; Joseph Zavoral, OSHA Liability in Tort and the Threat of the Multi-Employer Doctrine, 47 FLA. St. U. L. Rev. 867, 879-82 (2020).

^{177.} See, e.g., Stephen A. Hess & William J. McConnell, Assessing Liability for Green Building Failures, Part II: How Claims of Green Building Failures Fare Under Common Law Doctrines, 7 AM. COLL. CONSTR. LAWS. J. 1, 1-5 (2013); Edward B. Gentilcore, Through the Green Looking Glass, Part II: Contractual Solutions to Avoid Falling into the Rabbit Hole, CONSTR. LAW., Spring 2013, at 6, 14; Edward B. Gentilcore, Through the Green Looking Glass, Part I: Pursuing Successful Green/Sustainable Construction Without Falling into the Rabbit Hole, CONSTR. LAW., Winter 2013, at 39; William J. McConnell & Stephen A. Hess, Assessing Liability for Green Building Failures, Part I: The History, Development, and Status of Green Building Codes, 6 AM. COLL. CONSTR. LAWS. J. 1, 5 (2012); Circo, supra note 55, at 483-84.

^{178.} See, e.g., Robert Denney, Contractor Liability Under CERCLA, CONSTR. LAW., Summer 2020, at 31, 35; Elena Mihaly et al., Legal Liability of Design Professionals for Failure to Adapt to Climate Change, 12 AM. COLL. CONSTR. LAWS. J. 1 (2018); Brian J. Mink, Trading CERCLA for Spearin in El Dorado County: Shifting the Risk of Unknown Site Pollution to the Government in CERCLA Consent Decrees, CONSTR. LAW., Fall 2015, at 26, 33; Jocelyn L. Knoll & Shannon L. Bjorklund, Force Majeure and Climate Change: What is the New Normal?, 8 AM. COLL. CONSTR. LAWS. J. 1 (2014); Vyas & Gentilcore, supra note 55, at 10; Carl J. Circo, Should Owners and Developers of Low-Performance Buildings Pay Impact or Mitigation Fees to Finance Green Building Incentive Programs and Other Sustainable Development Initiatives?, 34 WM. & MARY ENV'T L. & POL'Y REV. 55, 58-60 (2009); Circo, supra note 55, at 732-33.

arbitration over litigation may have on the common law development of construction law.¹⁷⁹ Discrete aspects of dispute resolution practices in the industry also hold promise for academic consideration.¹⁸⁰ Legal implications of technological developments affecting design and construction pose many interesting questions.¹⁸¹ Construction lending presents other topics for academic attention,¹⁸² as does the interface between construction financing and the Bankruptcy Code.¹⁸³ Legal scholars should delve more into questions of legislative and regulatory policies affecting the industry, along with a range of administrative law matters.¹⁸⁴ Academics should engage more regularly on international and comparative law topics involving

^{179.} See, e.g., William Karl Wilburn & Robert Chistoffel, Whither Construction Law? The Conversation Continued . . . auf Deutsch, CONSTR. LAW., Fall 2012, at 25; Andrew D. Ness, Whither Construction Law? How Can Construction Law Continue to Grow and Evolve in the Era of "The Vanishing Trial"?, CONSTR. LAW., Summer 2010, at 5.

^{180.} See, e.g., Bruner, supra note 51, at 7; Overcash, supra note 48, at 22; Thomas J. Stipanowich, Managing Construction Conflict: Unfinished Revolution, Continuing Evolution, CONSTR. LAW., Fall 2014, at 13; Paul T. Milligan, supra note 51, at 23; Bruner, supra note 48, at 6.

^{181.} See, e.g., Nancy Wiegers Greenwald, BIM, Blockchain, and Smart Contracts, CONSTR. LAW., Fall 2020, at 9; Hurtado, supra note 57, at 809-43; Vince Anewenter et al., Brave New Extruded World: Legal Issues Arising in the Construction Industry from Using Additive 3D Printing Technology, 9 AM. COLL. CONSTR. LAWS. J. 1 (2015); Circo, supra note 57, 873-74.

^{182.} See, e.g., Carl J. Circo et al., The Role of Lender's Counsel in the Design and Construction Process: Contract Review, Conditional Assignments of Contracts, and Related Due Diligence, 24 REAL PROP., PROB. & Tr. J. 557 (1990). See generally 3 Bruner & O'CONNOR, supra note 7, at §§ 8:125-49.

^{183.} See, e.g., Jason R. Kennedy, Selected Issues in Commercial Construction Bankruptcies, CONSTR. LAW., Spring 2013, at 33; David C. Seitter et al., The Intersection of Construction Law and Bankruptcy, CONSTR. LAW., Winter 2010, at 11; Deborah S. Griffin et al., Intersections of Bankruptcy and Construction: Treatment of Executory Construction Contracts and Mechanics' Liens in Bankruptcy, 4 Am. COLL. CONSTR. LAWS. J. 1 (2010).

^{184.} See, e.g., Suzanne Karbarz Rovner & Dennis J. Powers, ADA Compliance in the Commercial Context: Whose Job is it Anyway?, CONSTR. LAW., Summer 2019, at 14; Phillip B. Russell et al., An Overview of OSHA Investigations and Citations, CONSTR. LAW., Winter 2017, at 15; Lori Ann Lange, Navigating the Increasingly Complex Regulatory Environment of Government Contracts, CONSTR. LAW., Spring 2016, at 28; Roger C. Haerr, When Underbidding Below Cost to Win a Public or Government-Funded Contract May Violate the False Claims Act, CONSTR. LAW., Winter 2013, at 17; Elspeth England, The Government Upgrades the False Claims Act: Implications for Federal Construction Contracting, CONSTR. LAW., Winter 2012, at 25; Deborah I. Hollander, New OSHA Safety Rules for Crane and Derrick Operations, CONSTR. LAW., Winter 2011, at 30.

the built environment.¹⁸⁵ There is also a pressing need for scholars to assess consumer protection in the construction industry and to consider problems primarily associated with small projects, where sophisticated structures and risk management devices may be impractical.¹⁸⁶ Attention from the legal academy to consumer transactions and small projects may prove especially meaningful to legal academics because members of the construction bar have given less attention to these matters than to commercial ones.

The practice-oriented literature identifies still other issues that legal scholars might pursue. Only further investigation can determine which of them may lead to significant academic projects, but I will conclude this Part by briefly noting a few possibilities. Labor and employment law frequently intersect with the construction industry in ways that should interest scholars in that field.¹⁸⁷ Intellectual property aspects of design and construction warrant ongoing attention.¹⁸⁸ Scholarly investigations might also be directed toward interdisciplinary connections, including engineering, economics, and forensic

^{185.} The practicing bar has already contributed a great deal to these topics. See, e.g., Angus N. McFadden & Gregory K. Smith, Issues and Solutions in International Construction Contracting, CONSTR. LAW., Fall 2016, at 7; Stephen A. Hess, Studies in European Construction Law, CONSTR. LAW., Winter 2016, at 46; Bailey & Hess, supra note 43, at 6; John Livengood, Comparison of English and US Law on Concurrent Delay, CONSTR. LAW., Summer 2015, at 21; Jesse B. Grove & Richard Appuhn, Comparative Experience with Dispute Boards in the United States and Abroad, CONSTR. LAW., Summer 2012, at 6.

^{186.} See, e.g., Roger B. Coven, California Attempts to Resolve Residential Construction Defect Claims Without Litigation, CONSTR. LAW., Spring 2003, at 35; Stipanowich, supra note 84, at 502-05, 520-22; Golden, supra note 29, at 11.

^{187.} See, e.g., Erin Ebeler Rolf & Andrea Woods, Labor and Employment Risk in the Real World: A Practical Guide to Understanding Recent Trends and Laws Intersecting the Construction Industry, Constr. Law., Winter 2021, at 6; Ostroff, supra note 56, at 25; Y. Lisa Colon Heron & Brian Anthony Williams, Government Contracting Preference Programs After Schuette: What's Next? Achieving Parity Through Race-Neutral Methods, Constr. Law., Winter 2015, at 29; Gerard P. Brady & Jared Hand, The Perils of Doing Business with Disadvantaged Business Enterprises, Constr. Law., Summer 2012, at 37.

^{188.} See, e.g., Mary Jane Augustine & Christopher S. Dunn, Consequences of Ownership or Licensing of the Project Drawings—If You Pay for It, Do You Own It?, CONSTR. LAW., Summer 2008, at 35; David A. Roberts, There Goes My Baby: Buildings As Intellectual Property Under the Architectural Works Copyright Protection Act, CONSTR. LAW., Spring 2001, at 22.

studies. 189 Undoubtedly, scholars who specialize in other fields could uncover additional research topics.

III. IN CONCLUSION: SEEKING A PARTNERSHIP BETWEEN THE CONSTRUCTION BAR AND THE LEGAL ACADEMY

Construction law exists not only as a specialty practice for lawyers, but also as a significant body of law, legal relationships, and policies relating to one of the most important segments of the national and global economies. By failing to assign construction law a meaningful place in the law school curriculum, law schools forego a valuable pedagogic tool—one that can both integrate learning in multiple legal fields at advanced levels and help to introduce students to complex commercial practice. By failing to promote scholarly interest in legal aspects of designing and constructing the built environment, the legal academy misses an important opportunity to explore, assess, and critique construction law as an instrument of society. It also overlooks promising opportunities for cross-disciplinary work with faculties in engineering, architecture, and business, among others.

What will it take for the legal academy to embrace construction law? Only a small number of fulltime law professors currently devote substantial time and energy to construction law. There apparently are still too few of us to establish a Section on Construction Law within the Association of American Law Schools ("AALS"), an idea that Professor Stipanowich proposed more than two decades ago. The impetus must come from those with intimate knowledge of the legal relationships

^{189.} There has already been some contribution on lost labor productivity and forensic scheduling issues. See, e.g., William Ibbs & Oskar Gentele, Usage and Acceptance Rates for Loss of Productivity Damage Quantification Methods, CONSTR. LAW., at Spring 2021, at 26; Stynchcomb et al., supra note 41, at 18; Joseph C. Kovars et al., Pros and Cons of Using Industry Studies to Quantify Loss of Labor Productivity, CONSTR. LAW., Winter 2016, at 6; Daniel E. Toomey et al., Calculating Lost Labor Productivity: Is There a Better Way?, CONSTR. LAW., Spring 2015, at 27; Patrick M. Kelly & William E. Franczek, Clearing the Smoke: Forensic Schedule Analysis Method Selection for Construction Attorneys, CONSTR. LAW., Fall 2013, at 30; Plotnick, supra note 125, at 25; Kenji Hoshino & John Livengood, A Defense of the AACE Recommended Practice for Forensic Schedule Analysis, CONSTR. LAW., Winter 2010, at 32.

^{190.} See Stipanowich, supra note 84, at 576.

underlying design and construction of the built environment. The leadership of the construction bar stands in the best position to lead the way. Initiatives might come from the American Bar Association's Forum on Construction Law and the American College of Construction Lawyers. Members of these organizations have long taught most courses relating to construction law offered in U.S. law schools.

These practicing lawyers, mediators, and arbitrators who so frequently serve as adjunct professors on a part-time basis, in addition to continuing to teach, might band together to leverage their law school relationships. They could establish collaborations with fulltime members of law faculties in allied areas, such as contracts, commercial law, dispute resolution, consumer protection, torts, property, administrative law, public contracts, real estate transactions, and environmental policy, among others. At some schools, they might collaborate with fulltime faculty on joint teaching or research projects. They also could lobby the law schools where they teach and other schools where they have contacts to expand academic engagement with the legal aspects of design and construction for the built environment. They could encourage law deans and faculties to schedule regular guest lectures and periodic symposia on construction law and to invite construction lawyers to fill posts as visiting professors of practice. Their support might even help move toward creation of an AALS Section on Construction Law. They can also seek affiliations with international professional organizations and international academic programs devoted to design and construction law that could eventually lead to one or more academic centers of construction law in the United States.

After nearly half a century of construction law being recognized as a practice specialty, ¹⁹¹ the time is right for law faculties to embrace construction law as a specialty in the law school curriculum and in research agendas. My heartfelt hope is that the law professors and construction lawyers who have contributed to the Arkansas Law Review Symposium on

^{191.} See Philip L. Bruner, The Historical Emergence of Construction Law, 34 WM. MITCHELL L. REV. 1, 22 (2007).

Construction Law in the Legal Academy, along with others who may hear this call, will respond.