

**American Bar Association
Fidelity & Surety Law Committee**

**Mechanical Electrical Plumbing (MEP) Trades
Divisions 15 and 16**

**David D. Gilliss
Pike & Gilliss, LLC
Baltimore, MD**

**Bruce W. Kahn
Berkley Surety Group
Morristown, NJ**

**Mike Loewke
Loewke Brill Consulting Group, Inc.
Rochester, NY**

**Lauren P. McLaughlin
BRIGLIAMCLAUGHLIN, PLLC
Tysons Corner, VA**

**George Thomas
Loewke Brill Consulting Group, Inc.
Charlotte, NC**

**Presented at the 2016 Mid-Winter Meeting
January 21-22, 2016
New York, NY**

© 2016 American Bar Association

TABLE OF CONTENTS

I.	“NUTS AND BOLTS” OF THE MEP TRADE	
	A. Means/Methods.....	3
	B. Standards that apply to MEP trades.....	3
	C. Typical design criteria versus performance specs.....	3
	D. Plan reading, procedure, measuring, and coordination issues.....	4
	E. Notes, specifications, general conditions, special conditions.....	4
	F. Sections, details, typical details, standard details.....	5
II.	LEGAL ISSUES AND DECISIONS INVOLVING THE MEP TRADE	
	A. Litigation Arising from Contract Formation.....	6
	1. Promissory Estoppel.....	7
	2. “Implied in Fact” Contracts.....	8
	3. Firm Offer or Invitation to Negotiate?	9
	B. Implied Warranty of Specifications, <i>Spearin</i>, and Risk Allocation....	9
	C. Integrated Project Delivery (IPD) and Building Information Modeling (BIM).....	13
	1. Integrated Project Delivery (IPD) – In General.....	13
	2. Building Information Modeling (BIM) – In General.....	15
	3. Claims arising from BIM.....	18
	4. Litigation Examples.....	19
	5. Summary.....	21
	D. Green Building Considerations – Legal Risks.....	21
	1. Background.....	21
	2. Green Certification.....	22
	3. Potential Legal Risks from Green Building.....	24
	4. Resources for Drafting Green Building Contracts.....	25
	5. Recent Examples of Green Litigation.....	28
	6. Summary.....	32
	7. Surety and Principal’s Green Contracting Checklist.....	33
	E. Case Summaries involving Recent MEP Litigation.....	35
	1. Release and Waiver of Lien Rights/Miller Act Rights.....	35
	2. Arbitration versus judicial lien process.....	38
	3. Recovery of attorneys’ fees by mechanical contractor.....	38

I. “NUTS AND BOLTS” OF THE MEP TRADE

A. Means/Methods

Means and methods is a “colloquial reference to the methods, techniques, and sequencing that is within the discretion of the contractor to perform the construction work.”¹ It is generally set forth in the contract that it is within the contractor’s purview to determine what tools/methods to use to achieve a complete and working system.

B. Standards that apply to MEP trades

National Codes that are relevant to MEP include:

- National Electrical Code (NEC)
- National Fire Protection Association (NFPA)
- National Standard Plumbing code (NSPC)
- International Building Code (IBC)

Trade organizations that are relevant to MEP include:

- National Electrical Contractors Association (NECA)
- Mechanical Contractors Association of America (MCAA)
- Sheet Metal and Air Conditioning Contractors’ National Association (SMACNA)

C. Typical design criteria versus performance specs

Design specifications “set forth precise measurements, tolerances, materials, in-process and finished product tests, QC measures, inspection requirements, and other specific information about how the project or a portion of the project is to be build.”² For example, a plan/spec (prescriptive) system would identify specific equipment to be used, configuration of

¹ Marilyn Klinger & Marianne Susong, *The Construction Project: Phases, People, Terms, Paperwork, Processes*, (2006) at 98.

² Marilyn Klinger & Marianne Susong, *The Construction Project: Phases, People, Terms, Paperwork, Processes*, (2006) at 102.

ducts/conduits/pipes, etc. and terminations of equipment. As for design specifications, the owner is generally responsible “for the correctness and adequacy of the design and engineering.”³

Performance specifications “set forth the operational characteristics desired for the work or a portion of the work.”⁴ A performance based specification will list performance parameters to be achieved, such as “supply all needed electrical devices for 2,000 square foot of office space (per local codes)”. In Mechanical, it might be “supply A/C and Heat for 2,000 sq. ft. of office space.”

D. Plan reading, procedure, measuring, and coordination issues

As for the MEP trades, typically, plans will first be transferred into CAD drawings. Second, a set of coordination drawings are created by the Mechanical contractor. Then, the electrical and fire protection contractors add in their piping and conduits. Through this process conflicts are discovered and mended. Last, installation will begin and follow coordination drawings for all of trades. The order of precedence for coordination drawings is typically:

1. Plumbing drains
2. Ductwork
3. Mechanical piping
4. Plumbing piping
5. Sprinkler piping
6. Electrical conduit

E. Notes, specifications, general conditions, special conditions

General Conditions are “the part of the contract document which sets forth many of the rights, responsibilities, and relationships of the parties involved or of the contract. General conditions also refer, colloquially, to the variable indirect costs associated with performing the

³ Marilyn Klinger & Marianne Susong, *The Construction Project: Phases, People, Terms, Paperwork, Processes*, (2006) at 102.

⁴ Marilyn Klinger & Marianne Susong, *The Construction Project: Phases, People, Terms, Paperwork, Processes*, (2006) at 106.

work, i.e., the costs of supervision, the cost of a jobsite trailer, temporary electricity, jobsite office supplies, water, ice, small tools, and so forth.”⁵

Special conditions, are those conditions which do not fall under the definition of general conditions, rather they are in addition to general conditions. As for MEP trades, it is key to identify if the contract contains any temporary services which can be very costly and often undefined as to scope. Special Conditions would also include "commissioning." Of note, “the contractor accepts general responsibility for product design.”⁶

Notes are additions to standard contract language. MEP contractors should be wary of any note that identifies "a complete and working system" as this is worded in such a way that the Architect or Engineer may be trying to have a prescriptive spec also work as a performance spec.

F. Sections, details, typical details, standard details

These terms refer generally to the architectural or engineering drawings and are intended to provide a “detailed” view of the particular area or item of construction or installation of equipment. Equipment hook up details are to be expected in the drawings (and they may or may not be “standard” details). Mechanical room sections will magnify the mechanical room in order to provide the MEP trades with more detail.

II. LEGAL ISSUES AND DECISIONS INVOLVING THE MEP TRADE

Litigation is typically a last resort for most trades given the attendant risks, costs, and business considerations. However, mechanical, electrical, and plumbing contractors often are forced to pursue their legal rights and remedies in court, usually to recover payment directly from a contractor, but also to challenge terminations, the propriety of design specifications, to

⁵ Marilyn Klinger & Marianne Susong, *The Construction Project: Phases, People, Terms, Paperwork, Processes*, (2006) at 98.

⁶ Marilyn Klinger & Marianne Susong, *The Construction Project: Phases, People, Terms, Paperwork, Processes*, (2006) at 106.

assert lien rights, and to pursue sureties for recompense. Below are some recent reported decisions, involving pertinent legal issues ranging from contract formation to LEED liability, BIM considerations, and implied warranties of design.

A. Litigation Arising from Contract Formation

One of the most difficult areas of construction contracting surrounds the back-and-forth between general contractors and subcontractors on and just after bid day.⁷ Subcontractors bidding on a particular scope of work on a project often submit their price quotation, or quotes, to more than one general contractor.⁸ For every subcontractor, there is a different quote document, containing differing verbiage.⁹ Those quotes are often transmitted a very short time period before the general contractor has to compile quotes from many subcontractors with its own numbers to submit a bid for the overall project. General contractors may even communicate with representatives from particular subcontractors about the contents and viability of the quote. With their bid submissions, general contractors often have to list the subcontractors they intend to employ if successful in obtaining the contract.¹⁰

These circumstances are a breeding ground for uncertainty and dispute. When the general contractor is successful in obtaining a project from an owner, having based its proposed price on one of the subcontractor's quotes, there are several ways in which it can proceed. If the general contractor enters into a written contract with the lowest-priced subcontractor, then there is not litigation (at least over that issue). "If the general contractor decides to negotiate with the subcontractor or other potential subcontractors, and ultimately enters into an agreement with a

⁷ B. Marston, et al., "Deal...or no Deal": Identifying and Addressing Gray Areas in Construction Contracting, *The Construction Lawyer* (Summer 2013).

⁸ *Id.* at 18.

⁹ *Id.*

¹⁰ *Id.*

different subcontractor, then – somewhat surprisingly – there has been limited litigation by subcontractors trying to force a general contractor to contract with it after using its quote, but later bid shopping”.¹¹

1. Promissory Estoppel

The primary dispute that arises is where the subcontractor on whose quote the general contractor based its bid to the owner elects not to proceed to contract with the general contractor and refuses to perform the work on which it quoted. This occurred on a high profile case in *Dynalectric Co. of Nev. v. Clark & Sullivan Constructors, Inc.*¹² In that case, the University Medical Center (“UMC”) sought bids for the expansion of its medical center in Las Vegas, Nevada. In submitting its bid to UMC, general contractor, Clark, relied on a bid quote of \$7,808,983 from electrical subcontractor, Dynalectric, to perform all of the electrical work for the project. Dynalectric assured Clark of the accuracy of its bid. However, after learning that Clark had been awarded the general contract for the UMC expansion project, Dynalectric repudiated its offer and withdrew its bid. As a result, Clark contracted with three replacement subcontractors to complete the electrical work for the project at a price of \$10,310,598.

Clark sued Dynalectric asserting a claim for promissory estoppel. The lower court found that Clark, having reasonably relied on the subcontractor’s quote to formulate its own bid, had a valid promissory estoppel claim. Clark was awarded approximately \$2.5 million for the electrical subcontractor’s withdrawal of its bid quote

The court reasoned that when a subcontractor submits a bid to obtain its subcontract, it should reasonably expect the general contractor to rely on its bid. The fact that the electrical

¹¹ *Id.*

¹² *Dynalectric Co. of Nevada v. Clark & Sullivan Constructors*, 255 P.2d 286 (Nv. 2011).

subcontractor repeatedly assured the general contractor of the accuracy of its bid, and was a sophisticated subcontractor that could readily anticipate the result of its promise, was particularly compelling to the court in finding an expectation damages award appropriate.

The court awarded damages by calculating what it cost the general contractor to complete the electrical scope using three other “replacement contractors” at a price of \$10,310,598, minus Dynalectric’s bid price. The *Dynalectric* case should caution subcontractors against submitting unequivocal bids without clear disclaimers and caveats, even if it may risk losing out on the award.

2. “Implied in Fact” Contracts

Just as promissory estoppel can be a legal theory by which a mechanical contractor will be held to its bid, an “implied-in-fact” contract can exist between two parties by virtue of the parties’ conduct. In *Lomax Const., Inc. v. Triad Sheet Metal & Mech., Inc.*,¹³ a North Carolina court of appeals ruled that a mechanical subcontractor’s quote to complete the mechanical work on a fire station project for was not an enforceable “implied-in-fact” contract. The disputes in that case arose when the general contractor incorporated the mechanical subcontractor’s bid to formulate its own bid price and was later awarded the general contract. Triad Sheet Metal withdrew its bid after learning Lomax received the award and Lomax sued.

The court held that there was no “mutual assent” to the basic terms of the agreement to form a contract. First, the mechanical subcontractor’s bid did not contain schedule or payment terms. Additionally, the general contractor never communicated with Triad Sheet Metal between the time it received its bid and the time the general contractor submitted its bid. Lastly, the fact

¹³ *Lomax Const., Inc. v. Triad Sheet Metal & Mech., Inc.*, 212 N.C. App. 692 ((N.C. Ct. App. June 21, 2011) (unpublished).

that the general contractor requested different terms after the mechanical contractor submitted its bid, precluded an unqualified acceptance. While bid proposals can be binding on an MEP subcontractor, under an “implied in fact” theory, there must be enough evidence of communications and conduct between the parties to show that they intended to be bound by the proposal.

3. Firm Offer or Invitation to Negotiate?

In another scenario, *I & R Mechanical Inc. v. Hazelton Manuf. Co.*,¹⁴ involved a subcontractor who brought an action for breach of contract against its wholesale supplier of HVAC equipment. The complaint alleged that the mechanical subcontractor relied on the supplier’s unsolicited, written quoted price for three boilers when submitting its successful bid for the heating, ventilation, and air conditioning (HVAC) work on a public school building project. The court held that an unsolicited quote by the supplier, given to a number of subcontractors believed to be bidding on the construction project, was not legally binding. The court found there would be no reasonable expectation by the supplier that a subcontractor would rely on its quote in preparing its bid because the subcontractor reserved the right to “shop around” among suppliers after the subcontract was awarded. Further, the subcontractor admitted that it was actively seeking a better price, and as such, the supplier was not held to its price. In this instance, the court ruled that the quote was not a firm offer but rather, a request or invitation to negotiate.

B. Implied Warranty of Specifications, *Spearin*, and Risk Allocation

One of the most litigated issues for MEPs involve who bears the risk of imperfect design documents? The seminal decision of *United States v. Spearin* established that a project owner

¹⁴ *I&R Mechanical, Inc. v. Hazelton Manufacturing Co.*, 62 Mass. App. Ct. 452 (Mass. 2004).

impliedly warrants the suitability of the plans and specifications. But, because parties can simply “contract around” an implied warranty, owners have become exceptionally sophisticated in shifting the risk of design defects to subcontractors, the parties who can least manage the risk.

Consider the recent decision of *Coghlin Electrical Contractors, Inc. v. Gilbane Building Company*, involving a rather noteworthy battle between an electrical subcontractor and construction manager at risk (CMAR) against a public entity. The disputes in that case arose from the construction of a public project, a 320-bed adult and adolescent psychiatric facility for a state agency, the Massachusetts Division of Capital Asset Management (State). Gilbane Building Company (Gilbane) served as the Construction Manager at Risk (CMAR). When the primary electrical subcontractor encountered large scale inefficiencies, it submitted a multi-million dollar claim to Gilbane, who passed the claim through to the State. The State rejected the request for increased compensation, and Coughlin sued Gilbane, alleging that the CMAR mismanaged the project and mishandled design changes. Gilbane, in turn, sued the State for breach of contract and indemnification stating that the public owner is legally responsible for damages caused by design changes and design errors or omissions.

The State asked the court to dismiss the case at the outset, arguing that the parties’ CMAR contract imposed upon Gilbane extensive planning and design oversight duties, as well as the duty to indemnify the State for any claims, losses or damages arising out of the project.

In its ruling, the trial court immediately termed it a “case of first impression”. The court framed the legal question as follows: does the CMAR agreement trump long-standing *Spearin* doctrine principles in this state (*i.e.*, that a public owner who furnishes plans and specifications impliedly warrants the accuracy and completeness of those plans?).

The Court began its analysis by citing certain provisions of the CMAR contract, including to the “extensive design review” responsibilities of Gilbane:

The CM shall review, on a continuous basis, development of the Drawings, Specifications or other design documents produced by the Designer... Review of the documents is to discover inconsistencies, errors and omissions between and within design disciplines....Without limitation, the CM shall review the design documents for clarity, consistency, constructability, maintainability/operability....

In addition, the Court cited to the indemnification provision which required Gilbane to “indemnify, defend...and hold harmless [the State] from any claims or damages...” regardless of whether or not such claims, damages, losses are caused in whole or in part by the State.

The court acknowledged that Massachusetts law favors contractors where the owner supplied erroneous or ambiguous plans and specifications. However, the court made a very important – and possibly questionable – distinction. The court ruled that because the project was not a traditional design-bid-build case, but a CMAR delivery method, that Gilbane had more involvement in the early phases of the design. As such, the court determined that traditional *Spearin* law did not apply.

Moreover, the court found that the allocation of risk for cost overruns was decidedly shifted to Gilbane through the guaranteed maximum price (GMP) arrangement. “Given the material changes in the roles and responsibilities voluntarily undertaken by the parties in a modern CMAR contract, the protections that Massachusetts courts historically have extended to construction contractors in the traditional design-bid-build context...simply are inapplicable to [CMAR] contracts.”

Gilbane appealed the decision and many industry trade groups filed “friends of the court” briefs in support of both Gilbane and the State. Gilbane argued on appeal that

the ruling, shifting design risk to CMs (and its subcontractors) and abrogating *Spearin*, was incorrect in that Gilbane was not contractually responsible for the design, nor responsible for hiring the designer. Gilbane argued that the court incorrectly construed the CMAR contract as design-build contract and that the decision will result in CMs not bidding on public projects and/or pricing increasing from unforeseen risks.

On appeal, the State argued that in a CMAR delivery method, a CM cannot simply pass along a subcontractor's claim stemming from the CM's own contractual responsibilities. The State argued that the very purpose of the CMAR contract is to defend the State from all claims arising out of the performance of the CMAR's work. Indeed, because Gilbane was contractually required to continuously review design documents for clarity, consistency and constructability and to maintain coordination, the State said the trial court got it right when dismissing Gilbane's suit against it.

The American Council of Engineering Companies (ACEC) and the local chapter of the American Institute of Architects (AIA) filed in support of the State. They argued that the rationale behind the *Spearin* doctrine (*i.e.*, the contractor's lack of control over the design) is inapplicable with CMAR contracts where CMs have intimate familiarity with and involvement during the development of the design. Further, they argued that the allocation of risk to the CM for design issues is fair due to the nature in which the CMAR is compensated – by establishment of the GMP at a point in time where costs are certain.

The Associated General Contractors of America (AGC) argued that the CMAR delivery method does not, and should not, make construction managers guarantors of the design, and that “design reviews” do not contractually delegate design responsibility to CMs. The appellate court recently reversed the trial court decision and held in favor of

the CMAR, ruling that a public entity could not avoid the implied correctness of its design.

This high profile decision underscores that risk allocation between owners and general contractors, and ultimately mechanical and electrical trades, is still unbalanced. Numerous construction industry studies have shown that realistic allocation of risks between parties to a construction project will “improve efficiency, promote a much more positive working relationship between the parties, and reduce the overall cost of the project.”¹⁵ Given the benefits of realistic risk allocation, disclaimers and exculpatory clauses may someday be viewed as a bygone era. However, despite the focus on collaboration and equitable allocation of risk, one could argue that many construction owners continue to prefer a risk allocation that shifts all risk downstream to those contracting parties who are least able to control and manage that risk. The concept of realistic risk allocation remains, for many contractors and subcontractors, mere hyperbole.

C. Integrated Project Delivery (IPD) and Building Information Modeling (BIM)

1. Integrated Project Delivery (IPD) – In General

Traditionally, project owners contemplating the development and construction of a new building would consider one of four project delivery methods to get their project completed: Design-Bid-Build, Design-Build, CM at Risk, and Multiple Prime.¹⁶ A relatively new method can now be added to those traditional choices. Integrated Project Delivery (“IPD”) has gained traction as of late in the construction industry. The American Institute of Architects (“AIA”) has

¹⁵ J. Groton and R. Smith, “*Realistic Risk Allocation, Allocating Each Risk to the Party Best Able to Handle the Risk,*” International Institute for Conflict Prevention & Resolution (2010).

¹⁶ The American Institute of Architects, *Working definition of IPD*, http://www.aiacc.org/wp-content/uploads/2014/07/AIACC_IPD.pdf (last visited August 21, 2015).

defined IPD as “a project delivery method that integrates people, systems, business structures and practices into a process that collaboratively harnesses the talents and insights of all participants to reduce waste and optimize efficiency through all phases of design, fabrication and construction.”¹⁷

In addition, the AIA has set forth the following required elements for a method to be considered an IPD: “(1) continuous involvement of owner and key designers and builders from early design through project completion; (2) business interests aligned through shared risk/reward, including financial gain at risk that is dependent upon project outcomes; (3) joint project control by owner and key designers and builders; (4) a multi-party agreement or equal interlocking agreements; and (5) limited liability among owner and key designers and builders.”¹⁸

In short, the IPD method forms a collaborative effort between owner, architects and engineers, and contractors.¹⁹ This effort is different from traditional methods because the construction trades are involved at a much earlier stage.²⁰ IPD is not possible, however, in many public sector construction projects that require a bidding process by contractors.²¹

The value of using IPD, according to its proponents, is an increase in flexibility through the course of the project, improved speed towards completion, and a reduction in litigation.²²

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ Tradeline, Inc., *Integrated Project Delivery Improves Efficiency, Streamlines Construction*, <https://www.tradelineinc.com/reports/2008-7/integrated-project-delivery-improves-efficiency-streamlines-construction> (last visited August 21, 2015).

²⁰ *Id.*

²¹ *Id.*

²² The American Institute of Architects, *Working definition of IPD*, http://www.aiacc.org/wp-content/uploads/2014/07/AIACC_IPD.pdf (last visited August 21, 2015).

2. Building Information Modeling (BIM) – In General

An important aspect of IPD is Building Information Modeling (“BIM”).²³ BIM is not simply a three dimensional model of a facility. Rather, BIM is a tool which provides enhanced communication between the many parties involved in construction including architect, engineer, contractor and subcontractors.²⁴ In fact, BIM has been said to be “5D” as it contains a fourth dimension, time, and a fifth dimension, cost.²⁵ As a technology, BIM therefore provides an integrated planning and decision making tool and resource for project management.

The National Building Information Modeling Standards (“NBIMS”) Committee was founded in 1992 as a part of the National Institute for Building Sciences (“NIBS”) Facility Information Council (“FIC”) with the stated purpose of improving the performance of facilities across their entire life cycle.²⁶ NBIMS defines BIM as: “a digital representation of physical and functional characteristics of a facility. A BIM is a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle; defined as existing from earliest conception to demolition.”²⁷ Additionally, NBIMS envisions a future for BIM that expands “the information model to include more of the life cycle phases (i.e.: real property commerce, maintenance and operations, environmental simulation, etc.), to standardize life cycle process definitions and associated exchanges of information, and to standardize information content so that meanings and granularity are clear and consistent.”²⁸

²³ Tradeline, Inc., *supra* note 4.

²⁴ *Id.*

²⁵ Jason M. Dougherty, Claims, Disputes and Litigation Involving BIM, 33 (2015).

²⁶ National BIM Standard-United States, *Frequently Asked Questions about the National BIM Standard-United States*, <https://www.nationalbimstandard.org/faqs#faq3> (last visited August 21, 2015).

²⁷ *Id.*

²⁸ Whole Building Design Guide, *NIBS BIM Initiatives*, http://www.wbdg.org/bim/nibs_bim.php#nbims (last visited August 21, 2015).

While BIM offers the promise to benefit owners, architects and engineers, and contractors market research confirms what one would anticipate, which is that the use of BIM benefits owners the most.²⁹ That being said, BIM also offers possible benefits for contractors because it presumably helps create efficiency during the construction process, including the important areas of scheduling and coordination of work.³⁰ In particular, BIM is crucial for mechanical, electrical and plumbing (“MEP”) contractors as estimates suggest that MEP contractors generally represent 40 to 60 percent of total project work as represented by cost.³¹

Traditional construction techniques like design-bid-build can be inefficient as to MEP contractors because of the decentralization of coordination and planning.³² Because MEP trade contractors are installing key building infrastructure from almost the start to the end of the project the MEP trades are first of all often interconnected and their main tasks are almost always on the “critical path” of the project. Accordingly MEP contractors always need “to be coordinated with subsequent subcontractors.”³³

BIM benefits MEP contractors by reducing “spatial coordination to reduce costly rework and digital fabrication to increase speed and assure quality.”³⁴ Moreover, BIM provides

²⁹ McGraw Hill Construction, *The Business Value of BIM for Owners*, [http://i2sl.org/elibrary/documents/Business_Value_of_BIM_for_Owners_SMR_\(2014\).pdf](http://i2sl.org/elibrary/documents/Business_Value_of_BIM_for_Owners_SMR_(2014).pdf) (last visited August 21, 2015).

³⁰ John Boktor, et al., *State of Practice of Building Information Modeling in the Mechanical Construction Industry*, *Journal of Management in Engineering*, 78 (2014).

³¹ *Id.*

³² Center for Integrated Facility Engineering, *MEP Coordination in Buildings and Industrial Projects*, <http://cife.stanford.edu/sites/default/files/WP054.pdf> (last visited August 21, 2015).

³³ Boktor, *supra* note 15, at 79.

³⁴ McGraw Hill Construction, *supra* note 14.

“effective clash detection and better visualization.”³⁵ In fact, the hallmark of BIM is its clash detection, where the contractor will create a “clash report” identifying any conflicts between the trades and a hierarchy for resolution.³⁶ Through that process, BIM has been reported to be responsible for a reduction of approximately 40% of change out of budgets.³⁷

Not surprisingly, there are trade specific tools for MEP subcontractors to create component BIM models on the market from companies such as Trimble, EastCoastCAD, or SprinkCAD, which provides software tools for estimating code compliance, 3D duct design and piping modeling among other MEP issues.³⁸

A survey conducted by McGraw Hill Construction found that only 11% of U.S. owners surveyed are using BIM at a high rate (over 75% of projects).³⁹ However, 40% of owners estimate that they will be using BIM at a high rate within the next two years.⁴⁰ A survey conducted in 2011 and 2012 found that 59% of mechanical contractors in the United States are using BIM in some way.⁴¹ The same survey found that 81% of the time the company using BIM had more than \$10 million in annual billings.⁴² Finally, the survey found that 61% of those mechanical contractors with BIM experience found that BIM had a business value, albeit that

³⁵ Fangyu Guo, et al., *Case Studies of BIM Practices within Mechanical Contractors*, http://www.researchgate.net/publication/269048063_Case_Studies_of_BIM_Practices_within_Mechanical_Contractors (last visited August 21, 2015).

³⁶ Dougherty, *supra* note 10, at 34.

³⁷ Guo, *supra* note 21.

³⁸ Jason M. Dougherty, *Claims, Disputes and Litigation Involving BIM*, 33 (2015); see also www.mep.trimble.com, www.eccadcam.com or www.sprinkcad.com.

³⁹ McGraw Hill Construction, *supra* note 14.

⁴⁰ *Id.*

⁴¹ Boktor, *supra* note 15, at 79.

⁴² *Id.*

they still had more to learn about the exact value.⁴³ Only 5% of those surveyed believed there was no value in BIM whatsoever.⁴⁴

Beyond the business case for using BIM for parties planning to use BIM, the clear delineation of the rights and duties of the parties in contracts is crucial. Not surprisingly, both the AIA and ConsensusDocs have established contract documents for parties engaging in BIM.⁴⁵ AIA has published four documents which may be helpful to parties intending to utilize BIM: (1) AIA – E202 (2008), Building Information Modeling Protocol Exhibit; (2) AIA – E203 (2013), Building Information Modeling and Digital Data Exhibit; (3) AIA – G201 (2013) Project Digital Data Protocol; and (4) AIA – G202 (2013) Project Building Information Modeling Protocol Form.⁴⁶ ConsensusDocs has issued ConsensusDocs – 301, Building Information Modeling (BIM) Addendum.⁴⁷

3. Claims arising from BIM

There are both legal and practical risks associated with BIM.⁴⁸ From a legal point of reference, the most common problem associated with projects incorporating BIM seems to be the failure of the parties to clearly lay out their respective contractual rights and obligations. This problem extends to the failure to clearly define ownership of the BIM data and the failure to accurately determine the parties' responsibilities for inaccuracies in the model.⁴⁹ Practically

⁴³ *Id.* at 80.

⁴⁴ *Id.*

⁴⁵ Dougherty, *supra* note 10, at 64.

⁴⁶ The American Institute of Architects, *AIA Contract Documents by Family*, <http://www.aia.org/groups/aia/documents/pdf/aiab081443.pdf> (last visited August 21, 2015).

⁴⁷ ConsensusDocs, *300 Collaborative*, <http://www.consensusdocs.org/Catalog/collaborative> (last visited August 21, 2015).

⁴⁸ Boktor, *supra* note 15, at 80.

⁴⁹ Guo, *supra* note 21.

speaking, there can be overall user unfamiliarity with BIM and the additional costs associated with needed software and training.⁵⁰

As BIM is a relatively new facet of the construction process, litigation arising specifically from BIM has yet to develop a field of case law. In fact, a search of the entire LexisNexis database results in zero cases with the phrase “building information modeling.” That being said, the risk of litigation associated with BIM exists. First, architects and engineers are under a duty of responsible control as to the plans they create.⁵¹ Under the collaboration method fostered by BIM, it is possible to make claims against those parties for their failure to maintain their duty.⁵² Moreover, architects using BIM may be held to a higher standard of care.⁵³ Along those same lines, potential claims exist in relation to use and reliance upon models.⁵⁴ Many potential claims exist in regards to the technical aspects of BIM including: the legal status of the model; interoperability requirements; the event of a data loss; and intellectual property claims.⁵⁵

4. Litigation Examples

a. Mortenson Co. v. Timberline Software

In *Mortenson Co. v. Timberline Software*, 93 Wn. App. 819 (Wash. Ct. App. 1999), the Plaintiff, a general contractor, purchased a software program to assist in the preparation of bids. The Plaintiff installed and used the software but eventually discovered that an error in the program caused a bid to be 2 million dollars less than it should have been.⁵⁶ The contractor then

⁵⁰ *Id.*

⁵¹ Boktor, *supra* note 15, at 106.

⁵² *Id.* at 107.

⁵³ *Id.* at 134.

⁵⁴ *Id.* at 109.

⁵⁵ *Id.* at 126.

⁵⁶ *Mortenson Co. v. Timberline Software*, 93 Wn. App. 819 (1999).

sued the software company under the theory of breach of warranty.⁵⁷ The trial court granted summary judgment in favor of the software company.⁵⁸ The appellate court affirmed the trial court reasoning that the purchase order that lacked a license agreement was not an integrated contract; rather, the license agreement was included in the contract because the general contractor accepted the terms by installing and using the software.⁵⁹

b. Confidential BIM Case

This lawsuit involving BIM was reported as a confidential settlement in 2011 by the Architectural Record.⁶⁰ This case involved the construction of a new life-sciences building for a university.⁶¹ The architect and MEP engineer utilized BIM to set forth the building's MEP systems into the ceiling plenum.⁶² However, trouble arose when the contractor had nearly completed its work because of a lack of space to complete the installation.⁶³ This was because while the MEP systems fit in the BIM model, the model also called for a very specific installation sequence to do so, but the actual MEP contractors were unaware of that requirement.⁶⁴

As a result of the failures, litigation ensued. The contractor sued the owner, the owner sued the architect and architect's insurer, and the insurance company brought in the MEP

⁵⁷ *Id.* at 822.

⁵⁸ *Id.* at 826.

⁵⁹ *Id.* at 827-834.

⁶⁰ The Architectural Record, *BIM Lawsuit Offers Cautionary Tale*, <http://archrecord.construction.com/news/2011/05/110519-BIM-Lawsuit-1.asp> (last visited August 21, 2015).

⁶¹ *Id.*

⁶² *Id.*

⁶³ *Id.*

⁶⁴ *Id.*

engineer.⁶⁵ The terms of the settlement remain confidential, but it has been reported that the architect, MEP engineer and contractor shared a cost in the millions of dollars in the settlement.⁶⁶

5. Summary

IPD and BIM are considered by some to be the future of the construction industry. In turn, contractors and sureties alike will need to take precautions when entering into projects that utilize IPD and BIM. Careful analysis of the contract documents and addendums to ensure that the contractor is not warranting a higher standard or care of an architect or engineer is crucial in avoiding liability. That being said, the benefits of IPD and BIM are seemingly worthwhile as the majority of MEP contractors with BIM experience have realized benefits from incorporating BIM into the project.

D. Green Building Considerations – Legal Risks

1. Background

Green Building is the process of constructing environmentally responsible, sustainable, and efficient buildings throughout the structure's life cycle from the determination of siting and design through construction, operation, maintenance, renovation and eventual decommissioning and destruction.⁶⁷ Green Building is intended and attempts to achieve environmental benefits such as enhanced biodiversity, improved air and water quality, reduced waste and conservation of natural resources.⁶⁸ In addition, Green Building may provide economic benefits like reduced operating costs, improved productivity, and optimized life-cycle performance.⁶⁹ Lastly, Green

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ Environmental Protection Agency, *Green Building Basic Information*, <http://archive.epa.gov/greenbuilding/web/html/about.html> (last visited August 19, 2015).

⁶⁸ Environmental Protection Agency, *Why Build?*, <http://archive.epa.gov/greenbuilding/web/html/whybuild.html> (last visited August 19, 2015).

⁶⁹ *Id.*

Building attempts to offer social benefits such as enhanced health, aesthetic quality, a lesser strain on existing infrastructure and an overall higher quality of life.⁷⁰

Because of these benefits, Green Building is growing in importance and becoming a major consideration in the construction industry. For example, 41 percent of nonresidential building starts in 2012 were green compared to only 2 percent in 2005.⁷¹ In addition, it is estimated that approaching 50 percent of all new nonresidential building starts in 2015 will be green.⁷² As Green Building becomes the norm rather than a trend, an overview of the process and legal implications associated with green building is imperative for contractors and sureties alike.

2. Green Certification

In 1993 the U.S. Green Building Council (“USGBC”) was established with the goal of fostering a new era of construction in the United States.⁷³ With a membership of nearly 200,000 professionals consisting of builders, environmentalists, corporations, nonprofits, teachers, students, and law makers,⁷⁴ the USGBC is best known for its creation of the LEED, or Leadership in Energy & Environmental Design guidelines a green building certification program that guides and sets standards for Green Building design, construction, operations and maintenance.

⁷⁰ *Id.*

⁷¹ U.S. Green Building Council, *Green Building Facts*, <http://www.usgbc.org/articles/green-building-facts> (last visited August 19, 2015) citing McGraw Hill Construction (2012). Green Building Market Sizing, drawn from Dodge Project Starts and Construction Market Forecasting Services, as of March 2012.

⁷² *Id.*

⁷³ U.S. Green Building Council, About USGBC, <http://www.usgbc.org/about> (last visited August 19, 2015).

⁷⁴ *Id.*

LEED sets forth four different levels of certifications for buildings. Ranging from the highest to lowest levels, these certifications are “platinum”, “gold”, “silver”; and “certified.”⁷⁵ Achieving each level of certification is done by earning points for complying with the following areas: (1) Integrative process; (2) Location and transportation; (3) Sustainable sites; (4) Water efficiency; (5) Energy and atmosphere; (6) Materials and resources; (7) Indoor environmental quality; (8) Innovation; and (9) Regional priority.⁷⁶ A maximum of 110 points is attainable with platinum being 80-110 points, gold as 60-79, silver as 50-59 and certified as 40-49.⁷⁷ As of August, 2015, approximately 13.8 billion square feet of building space is LEED-certified at some level.⁷⁸

Although LEED Certification was initially conceived as a voluntary program, and remains voluntary in many jurisdictions, a number of jurisdictions have begun to pass legislation that mandate or provide incentives for LEED certification.⁷⁹ For example, in 2011, the State of Maryland became the first state to pass legislation which offered a tax credit for individuals and corporations that built or remodeled green.⁸⁰ The U.S. General Services Administration requires that all new construction and substantial renovation of federally-owned facilities be certified as LEED gold.⁸¹

⁷⁵ U.S. Green Building Council, *This is LEED*, <http://leed.usgbc.org/leed.html> (last visited August 19, 2015).

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ USGBC, *Green Building Facts*, <http://www.usgbc.org/articles/green-building-facts> (last visited August 19, 2015).

⁷⁹ Dennis J. Bartlett & Michael Y. Ley, *Green Building Projects, AIA Sustainable Project Agreements and Their Impact on the Surety*, Surety & Fidelity Claims Institute (June 27-29, 2012).

⁸⁰ MD Code Ann. State Finance & Procurement § 3-602.1

⁸¹ U.S. General Services Administration, *LEED Building Information*, <http://www.gsa.gov/portal/category/25999> (last visited August 19, 2015).

While LEED is by far the most well-known certification system in the United States, a number of other systems are well known globally. Green Globes is a system that was created in Canada and is similar to LEED in its point earning methodology.⁸² The Building Research Establishment's Environmental Assessment Method (BREEAM) is a system that was created in the United Kingdom in 1990.⁸³ BREEAM is credited with serving as the model for both LEED and Green Globes.⁸⁴

3. Potential Legal Risks from Green Building

Green Building creates a number of risks for contractors and sureties. While many of the risks noted in this section appear most likely to expose contractors to more risk, it is important for sureties take note of the potential risks as they can affect the surety through the operation of a performance bond.

One such area of concern from Green Building is providing a warranty for third party green certification, whether provided intentionally or unintentionally.⁸⁵ Guaranteeing a certain level of LEED certification could shift the burden from the owner and architect/engineer to the contractor (and potentially the surety) by making the certification a performance specification instead of a design specification.⁸⁶

⁸² Green Globes, *About Green Globes*, <http://www.greenglobes.com/about.asp> (last visited August 19, 2015).

⁸³ BREEAM, *What is BREEAM?*, <http://www.breeam.org/about.jsp?id=66> (last visited August 19, 2015).

⁸⁴ Joseph C. Kovars & Michael A. Schollaert, *Maryland Construction Law Deskbook*, 294 (2012).

⁸⁵ Martha L. Perkins, *Novel Surety issues Presented by Green Construction: Identifying and Managing Those Unique Risks*, Surety & Fidelity Claims Institute (June 23-25, 2010).

⁸⁶ *Id.* at 14.

A second area of risk from Green Building is due to potential misstatements by other parties.⁸⁷ For one, care needs to be taken with regard to the actual materials incorporated into the project and with the technology implemented in projects. Many green buildings require certain performance standards but manufacturers and producers can overstate the performance capabilities of their products which may cause issues when a third party inspects for green certification.⁸⁸ Along those same lines, caution needs to be taken when hiring subcontractors as they too may overstate their familiarity and experience with green building.⁸⁹

Another major area for concern is in regard to local jurisdiction building codes. It will be important for contractors to remain cognizant of local codes. Complying with green certification is not the same as complying with local codes and in some jurisdictions additional green requirements that need to be met may exist.

The damages associated with the risks from green building are numerous and varied. For example, unrealized cost savings, including energy savings and water consumption, lost profits from tenants or diminution of property value, lost tax credits and even harm to the reputation of the building.⁹⁰

4. Resources for Drafting Green Building Contracts

With the increased demand for green building, and the aforementioned risks involved, effective contract drafting can prevent a great deal of litigation. , Both the American Institute of Architects (“AIA”) and ConsensusDOCS have published additional forms and commentary to assist in the creation of contracts that will address the risks particular to green building.

⁸⁷ *Id.* at 13.

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.* at 15.

The AIA has released a general guide for contracts involving green building named the “D503–2013, Guide for Sustainable Projects, including Commentary on the Sustainable Projects Documents.”⁹¹ The Guide not only provides an overview of green building and LEED certification but includes a commentary on individual AIA contract sections with green building considerations in mind.⁹² The hallmark of the Guide is the introduction of sustainability plans for owners, architects and contractors to incorporate into their AIA contract.⁹³ The plan ensures that the green products and material liability are clearly set forth. Additionally, the guide provides a model sustainability plan for owners, architects and contractors.⁹⁴

ConsensusDOCS and the Associated General Contractors of America Contract Documents Green Building Working Group developed ConsensusDOCS 310 Green Building Addendum which was released in November of 2009.⁹⁵ The standard contract sets forth the responsible party for the major legal risks that accompany green building.⁹⁶ The hallmark of this document is the creation of a “green building facilitator” that is responsible for achieving the certification level or other environmental benefits sought by the owner.⁹⁷

⁹¹ AIA, D503–2013, Guide for Sustainable Projects, including Commentary on the Sustainable Projects Documents, <http://www.aia.org/groups/aia/documents/pdf/aiab089195.pdf> (last visited August 19, 2015).

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ ConsensusDOCS, *New Standard Document Facilitates Green Building Projects*, <http://www.consensusdocs.org/News/ViewArticle?article=new-standard-document-facilitates-green-building-projects> (last visited August 19, 2015).

⁹⁶ Brian M. Perlberg, et al., *The 2011 Comprehensive Update to ConsensusDOCS*, <https://www.consensusdocs.org/News/Download/6ca68e33-87a2-428e-acf1-9fb300b783ad?name=The%202011%20Comprehensive%20Update%20to%20ConsensusDOCS.pdf> (last visited August 19, 2015).

⁹⁷ *Id.*

While the AIA and ConsensusDOCS are helpful tools for forming contracts, a leading expert on the topic of green construction contracts has provided a list of “musts” for any green contract which includes: “(1) definitions of “green” terminology and desired green goals; (2) party responsible for failure to achieve a third party rating designation or to obtain tax credits; (3) party responsible for document collection and submission to third-party rating entity; (4) specifics of project delivery method; (5) inadvertent warranties and guarantees; (6) waiver of consequential damages; (7) responsibility for failure of green products and technologies; (8) payment issues, especially concerning impact of delays for green designation.”⁹⁸

Although the AIA and ConsensusDOCS provide important additions for contracts between owners, architects, engineers and contractors, sureties also need to be cognizant of green building when underwriting bonds. It has been specifically recommended by some surety experts that sureties should disclaim any liability for any green building with specific language that excludes any green building requirement.⁹⁹ One such suggested clause is as follows:

NO LIABILITY FOR GREEN BUILDING REQUIREMENTS.
The condition of this Bond does not include any obligation to achieve any sustainable Objective. The Surety shall not be liable hereunder for any damages or costs caused or allegedly cause by, arising out of, or related directly or indirectly to a failure to achieve any Sustainable Objective, including, but not limited to, attorney fees, unrealized cost savings, lost profits, lost tax credits, or other costs, expenses, fees, or benefits.¹⁰⁰

⁹⁸ *Id.*

⁹⁹ Dennis J. Bartlett & Michael Y. Ley, Green Building Projects, AIA Sustainable Project Agreements and Their Impact on the Surety at 3, Surety & Fidelity Claims Institute (June 27-29, 2012).

¹⁰⁰ Martha L. Perkins & Thomas J. Kucera, *Identifying and Managing the Risks Unique to “Green” Construction: What Sureties Should Know*, 22 (2009).

We recognize however that in many situations the surety may not have the ability or much ability to control the form of the bond, which again drives the inquiry back towards understanding the risks and exposures particular to green requirements contained within the bonded contract.

5. Recent Examples of Green Litigation

a. ACHRI, et al. v. City of Albuquerque

In *Air Conditioning, Heating & Refrigeration Institute v. City of Albuquerque*, 835 F. Supp. 2d 1133 (D.N.M. 2010), three trade associations representing various entities involved with the heating, ventilation, air conditioning ("HVAC") trade sued the City of Albuquerque arguing that the City's new legislation should be enjoined because it is preempted by Federal law. The City had passed legislation that required compliance with a city wide energy code that regulated certain aspects of construction for the effective use of energy.¹⁰¹ Two requirements of the code were deemed "prescriptive" compliance paths, which required HVAC providers comply with "minimum efficiency standards for products that are more stringent than the applicable federal standards for those products and, in some cases, prescribes additional minimum efficiency requirements not required by federal law."

The Court held that the "prescriptive" compliance paths of the code did in fact require more stringent requirements than the National Appliance Energy Conservation Act and thus, granted summary judgment in the three HVAC associations' favor. However, the Court denied summary judgment as to the performance based paths required by the code, one of which

¹⁰¹ *Air Conditioning, Heating & Refrigeration Inst. v. City of Albuquerque*, 835 F. Supp. 2d 1133, 1135 (D.N.M. 2010)

required HVAC providers to meet a silver LEED certification.¹⁰² The Court reasoned that the Plaintiffs failed to meet their burden of showing the requirements are indeed preempted.¹⁰³

In 2012, the Court ruled upon the HVAC associations' second motion for summary judgment and held that since the City was unable to show that the performance based path was severable from the invalid prescriptive path, both were preempted.¹⁰⁴ The Court neglected to rule on whether the performance based path would have been valid had it been an independent provision.

b. Tagliarini v. New Haven Bd. of Aldermen

In *Tagliarini v. New Haven Bd. of Aldermen*, 2011 Conn. Super. LEXIS 626 (Conn. Super. Ct. Mar. 11, 2011) an appeal was taken of a zoning amendment that approved a Planned Development District ("PDD") for a new building for the Yale School of Management. A PDD is a floating zone carved into an existing zone to provide the city flexibility for new construction.¹⁰⁵ The Court considered two factors in deciding whether to uphold the zoning amendment: "(1) The zone change must be in accord with a comprehensive plan; and (2) it must be reasonably related to the normal police power purposes enumerated in [the city's enabling legislation]."¹⁰⁶

Of note, the compressive plan for New Haven heavily incorporates green building.¹⁰⁷ For example the plan includes that "attention must be paid to green building design by encouraging the development of environmentally sustainable buildings that meet or exceed energy targets

¹⁰² *Id.* at 18.

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ *Tagliarini v. New Haven Bd. of Aldermen*, 2011 Conn. Super. LEXIS 626 (Conn. Super. Ct. 2011)

¹⁰⁶ *Id.* at *4.

¹⁰⁷ *Id.*

(e.g. Energy Star, LEED certification); provide for daylighting; minimize transportation movements; and recycle and/or control waste streams."¹⁰⁸

In denying the appeal of the zoning amendment, the Court found both factors were satisfied and as to the first factor, noted that the environmental concerns of the comprehensive plan were met because the building is attempting to achieve LEED gold certification.¹⁰⁹

c. *Control Air Conditioning Corp. v. Wsp Flack & Kurtz*

In *Control Air Conditioning Corp. v. Wsp Flack & Kurtz*, No. G045500, 2012 Cal. App. Unpub. LEXIS 3975 (Cal. App. 4th Dist. May 25, 2012), an air conditioning company sued an engineer in tort in regards to air conditioning units that were installed in a new building. A short summary of the facts is as follows. The Rand Corporation endeavored to build a green headquarters in California and hired an architect and general contractor to accomplish that goal.¹¹⁰ The architect then hired an engineer and the general contractor hired the Plaintiff air conditioning company as a sub-contractor.¹¹¹ The air conditioning units that were installed were unsatisfactory to the Rand Corporation and the units were replaced by the general contractor who refused to compensate the Plaintiff.¹¹² Then, the Plaintiff sued the engineer alleging that the engineer caused the Plaintiff to follow a flawed plan and that the engineer subjected the units to “unfairly rigorous requirements, such as holding the units to a ‘LEED’ or ‘Leadership in Energy and Environmental Design’ standard.”¹¹³

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *Control Air Conditioning Corp. v. Wsp Flack & Kurtz*, No. G045500, 2012 Cal. App. Unpub. LEXIS 3975 (2012)

¹¹¹ *Id.* at *2

¹¹² *Id.*

¹¹³ *Id.*

The Court held that the engineering company owed no duty in tort to the Plaintiff air conditioning company.¹¹⁴ In short, the Plaintiff's cause of action is against the general contractor and not the engineer because there is a lack of privity between the engineer and the air conditioning company.¹¹⁵ Finally, the Court did permit the Plaintiff's claim for negligent misrepresentation to go forward as the Complaint alleged that the engineer may have ultimately specified the air conditioning units that were installed by Plaintiff.¹¹⁶

d. ACC Construction Company et al. v. The United States et al.

In *ACC Constr. Co. v. United States*, 2011 U.S. Claims LEXIS 2493 (Fed. Cl. Dec. 29, 2011), ACC Construction protested an award of a Federal contract to a different contractor alleging errors in evaluation as both contractors received "satisfactory" overall ratings but the second contractor was hired because it received "above average" ratings for two factors. One of the ratings was in regards to LEED certification.¹¹⁷ In regards to that issue, the Court found that the Army Corps of Engineers, which awarded the contract, "did not err in evaluating ACC's sustainability plan as 'Satisfactory,' as plaintiff indicated enough points for the required Silver LEED rating, but not enough for the next level."¹¹⁸ While this case did not turn entirely on LEED certification, it is important to note the potential importance of certification in bidding for contracts.

e. CLP Elements LLC v. Benton County Assessor

In *CLP Elements LLC v. Benton County Assessor*, 2012 Ore. Tax LEXIS 98 (2012), an appeal was taken from a determination of a property's real market value. While the value was

¹¹⁴ *Id.* at *34

¹¹⁵ *Id.* at *35

¹¹⁶ *Id.*

¹¹⁷ *ACC Constr. Co. v. United States*, 2011 U.S. Claims LEXIS 2493 (2011)

¹¹⁸ *Id.* at *5

challenged on a number of grounds, one issue was with respect to the state taking into account the potential for the building to become LEED silver certification thereby increasing the building's value.¹¹⁹ While the Court addressed a number of factors in making its determination as to the property's value, this case is instructive to show how LEED certification can play a role in property values and tax liability.

6. Summary

As exemplified above, the major area of litigation with green building surrounds LEED certification. In particular, the issue of achieving LEED certification or a specific level of LEED certification and the consequences of success or failure to do so. Parties should make clear whether they are warranting a certain level of certification, and should be particularly wary in doing so. Parties to a contract need to be sure they are not providing an unintended warranty. Additionally, parties need to be aware of the local jurisdiction's requirements to comply with any other certifications.

This section of the paper is a snapshot of the potential areas of litigation that can occur due to green building. As green building has gained traction only in the past ten years, "green litigation" has been a relatively minimal subset of the total amount of construction litigation. However, that is certain to change as the tide turns towards green construction. Both sureties and contractors should be aware when agreeing to bond or build green that green building can beget green litigation.

¹¹⁹ *CLP Elements LLC v. Benton County Assessor*, 2012 Ore. Tax LEXIS 98 (2012).

7. Surety and Principal's Green Contracting Checklist

The following is a non-exhaustive checklist for both the Surety and Principal to consider when entering into a green contract. Green construction, as with general commercial construction, is contract driven. In that regard, the parties to the green construction and the bonding surety must be always vigilant. Be especially alert to the following:

- Whether the contract complies with green laws and regulations.
 - Laws and regulations may change or vary from contract specifications potentially creating a “moving target.” Make sure the contract is certain as to the exact applicable law, regulation or standard.
- Whether the contract is with or without definitions of “green” terminology.
 - Key language can be hidden in the definition section.
- Whether the contract contains language that sets forth the exact required green goals.
 - Potential area of litigation when contract is silent.
- Whether the materials specified in the contract are widely available or not available at all.
 - Design specifications may serve to lessen a contractor’s risk, unless specified materials are unavailable.
 - Sole source or proprietary materials or items may be expensive or impossible to procure in the case of a default.
- Whether the contract sets forth design specifications or performance specifications.
 - Pay particular attention to the specifications and understand your risk whether the contract provides for design or performance specifications.
- Whether the contract specifies which party is responsible for failure to achieve a third party rating designation or to obtain tax credits.
 - Major area of potential litigation and contractor has no ability to influence third party decision.

- Can be a significant exposure for the surety who may not be aware it may be bonding this risk. Consider expressly carving tax credit or other similar liability out of the bonded obligation.
- O Whether the contract specifies which party is responsible for document collection and submission to third-party rating entity.
- Often overlooked but potentially time consuming and costly process and for a completing surety potentially expensive or difficult to achieve especially if the principal is no longer around.
 - From the surety's perspective should best be an owner or designer issue.
- O Whether the contract contains warranties and guarantees.
- Both can be inadvertently accepted and become a bonded obligation if proper attention is not paid.
- O Whether any riders to the contract disclaim any responsibility.
- Parties can significantly deny or reduce with just one rider or addendum an obligation that otherwise may exist in the body of the contract.
- O Whether the contract contains a waiver of consequential damages.
- Contractor and surety can be potentially liable for lost rent and lost sales on green apartments and condominiums unless properly specified in the contract.
 - Ties in with the tax credit issue noted above.
- O Whether the contract delineates responsibility for a potential failure of green products and technologies.
- Who bears the risk of what very well be new green technologies or techniques?
 - Important for the contractor who installs a green product or technology to disclaim any responsibility for a later failure or deficiency of the product.
- O Whether the contract sets forth a resolution to payment issues, especially concerning impact of delays for green designation.
- Green projects can have unexpected delays as compared to typical projects and the responsibility will fall on the contractor unless properly delineated in the contract.

E. Case Summaries involving Recent MEP Litigation

1. Release and Waiver of Lien Rights/Miller Act Rights

a) *Indus. & Mech. Contractors, Inc. v. Polk Const. Corp.*, No. CIV.A. 14-513, 2014 WL 2719462, at *1 (E.D. La. June 16, 2014) involved a construction dispute between the general contractor, Polk Construction Corporation (“Polk”) and its subcontractor, Industrial and Mechanical Contractors, Inc. (“IMC”). IMC filed a lawsuit to enforce its lien rights pursuant to the Louisiana Private Works Act, which confers both a statutory claim and privilege (or lien) to subcontractors against owners and general contractors for payment of the price of their work. *Id.* at *1 (citing to La. R.S. 9:4802). Polk attempted to argue that IMC waived its lien rights in the written subcontract, which contained a general waiver of liens clause stating:

“Subcontractor additionally waives and releases any right it may have to file and record a lien or statement of claim or privilege arising from any dispute of any kind related to the Work and/or the Subcontract. Subcontractor agrees that the filing of any lien or statement of claim shall be a material breach of this Subcontract, and Subcontractor agrees to pay Contractor for all damages, costs, and attorney's fees incurred by Contractor in causing the cancellation of the lien and/or statement of claim.”

Id. at *2 (quoting the Subcontract at Section 14, Paragraph 2). The court declined to enforce the lien waiver present in the subcontract. In so ruling, the court reasoned that although lien waiver provisions may be enforced in Louisiana, the lien waiver provision does not waive a separate and independent right to dissolution of the contract. *Id.* at *1. When one party to a contract fails to perform its obligations, or materially breaches the contract *first*, then the other party has the right to dissolve the contract. *Id.* The court held that since IMC presented a material dispute of fact concerning whether Polk first breached the subcontract by its nonpayment, thereby entitling IMC to “dissolve” the contract and refuse to perform its own obligations, including the lien waiver, then this clause was not necessarily an absolute bar to IMC’s action entitling Polk to a summary judgment award.

b. HPS Mech., Inc v. JMR Constr. Corp., 11–CV–02600–JCS, 2013 WL 5954895 (N.D.Cal. Nov. 6, 2013) involved an action under the Federal Miller Act by a subcontractor, HPS Mechanical (“HPS”) against the general contractor on the project, JMR Construction Corporation (“JMR”) and its surety, Great American Insurance Company. The parties’ subcontract contained a provision stating that JMR was not obligated to pay HPS for any amount of a change order request unless the owner first paid JMR for the change order. JMR and Great American attempted to enforce that clause in filing a motion for partial summary judgment to dismiss HPS’ Miller Act Claim, arguing that since the owner had not approved or paid HPS’ change orders, then JMR would not be liable to pay HPS for those change orders.

The California Supreme Court has held that “pay if paid” provisions are invalid because they violate public policy. *Id.* at *7 (citing to *WM. R. Clarke Corp. v. Safeco Ins. Co. of Am.*, 15 Cal.4th 882, 886 (1997)). The Court held that since the clause present in the parties’ subcontract was a classic “pay if paid” clause, it would not be enforceable against the subcontractor’s Miller Act claims.

c. United States v. Travelers Cas. & Sur. Co. of Am., 55 F. Supp. 3d 852 (N.D.W.Va. 2014) involved a second-tier subcontractor on a federal project that sued the prime contractor’s sureties. The project was not yet finished and the claimant was still performing. The sureties moved for partial summary judgment and to stay the action. The court granted partial summary judgment enforcing the release provisions in monthly payment requests, finding that the claimant had waived any claims prior to October 31, 2013. The court reasoned that the release and waiver forms signed by the sub-subcontractor for work on the federal construction project precluded it from bringing Miller Act claims against the sureties on the payment bond. Those releases and waivers, the court held, explicitly provided a full and final waiver of all

claims up to the date of the respective payment, and the subcontractor filed 26 consecutive waivers under oath. The court held that if the sub-subcontractor had desired a different outcome, it could have disputed charges or modified releases and waivers so as to not waive its claims.

The court also enforced a no-damage-for-delay provision in the claimant's subcontract. With respect to the claimant's claim for labor inefficiencies, the sureties argued that the alleged labor inefficiencies were ongoing and could not be evaluated until the claimant completed its work. The court granted the motion for summary judgment, finding that notice was premature.

d. Fisk Elec. Co. v. Fid. & Deposit Co. of Maryland, No. CIV.A. 12-953, 2013 WL 592907, at *2 (E.D. La. Feb. 14, 2013) involved a federal construction project where a prime contractor hired a subcontractor to supply a diesel generator and equipment. The subcontractor sued the prime contractor and its Miller Act sureties, alleging nonpayment for the generator. The subcontractor sought the balance of the purchase price of the generator plus attorneys' fees. The sureties argued that the subcontractor and prime contractor may have colluded to negotiate an artificially inflated price for the generator with the expectation that the cost would be borne by the sureties rather than the prime contractor.

The court acknowledged that fraud can be an affirmative defense to a Miller Act claim but concluded that the sureties waived this defense by failing to affirmatively raise it in their pleadings. Because of this and a lack of evidence absolving them of their obligations under the Miller Act, the court granted the subcontractor summary judgment in the full amount remaining under the purchase order agreement for the generator. However, the court denied summary judgment with respect to the claim for attorneys' fees because of a failure to provide evidence supporting these fees.

2. Arbitration versus judicial lien process

In *PGA Mech. Contractors, Inc. v. GPNZ Realty Co., LLC*, 37 Misc. 3d 1210(A), 961 N.Y.S.2d 361 (Sup. Ct. 2012), a mechanical contractor commenced a foreclosure action. After the commencement of the action, but before a final judgment, the parties agreed to discontinue the mechanic's lien foreclosure action and instead pursue the claim in arbitration. A surety had issued a mechanic's lien release bond securing the lien. After agreeing to arbitrate, the landowner moved for an order discharging the bond on grounds that it was given to discharge the mechanic's lien and, as the lien was no longer subject to foreclosure, the bond was unnecessary. The court agreed, concluding that, because the action to foreclosure on the mechanic's lien was discontinued, the lien could no longer be judicially established and thus, the bond no longer applied and the surety could not be liable for payment of any arbitration award.

3. Recovery of attorneys' fees by mechanical contractor

In *U.S. for the use and benefit of W.W. Gay Mechanical Contractor, Inc. v. Walbridge Aldinger Co.*, 543 Fed. Appx. 937 (11th Cir. 2013), the court rejected the prime contractor's set off claim for liquidated damages for delay. The court found that the contractor failed to establish that the subcontractor had delayed the project, or that any delays caused by the subcontractor resulted in the liquidated damages assessed by the government. In particular, the court held that the contractor failed to produce more than a "scintilla of evidence" that the alleged delays were the responsibility of the subcontractor. The subcontract also provided that the prime contractor could recover attorney's fees, and the court awarded fees to the subcontractor based on Florida Statutes Section 57.105(7). The mechanical subcontractor for Navy construction project was entitled to attorney's fees for prevailing on its Miller Act claims against the general contractor, under Florida law, (Fla. Stat. § 57.105(7)) providing for reciprocity of prevailing party attorney's

fees provisions). Because the subcontract gave the contractor a broad right to obtain attorney's fees for any default on the subcontract, the subcontractor was permitted the same right in return upon the contractor's default.