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**The Green Building Revolution:  
Addressing and Managing Legal Risks and Liabilities**

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## **EXECUTIVE SUMMARY**

Green buildings – structures that are environmentally responsible in their siting, design, construction, operation and maintenance – have the potential to transform the built environment and its impacts on the natural environment. In the United States alone, buildings consume 39 percent of energy and 72 percent of electricity and account for 35 percent of carbon dioxide (CO<sub>2</sub>) emissions. Given this impact on our energy resources, President Obama has set a goal to “green” 75 percent of federal buildings and to improve energy efficiency in two million homes, a goal embodied in the American Recovery and Reinvestment Act of 2009, which contains tens of billions of dollars in funding initiatives for green building.

Yet, as green building expands from the exception to the rule, certain legal risks are inevitable. For building green to become a standard business practice, parties involved in project construction and management – owners, buyers, tenants, design professionals (architects, engineers, and consultants), contractors, and subcontractors – must become familiar with the legal risks and liabilities associated with green building, as well as strategies to minimize them. This white paper addresses the current movement toward green building, the increasing number of mandates requiring it, and the benefits and costs associated with building green; analyzes the legal risks and potential liabilities to those involved in green building; and concludes with practical recommendations for minimizing such risks and liabilities.

### ***Benefits, Mandates and Costs***

There are several benefits associated with green building. For instance, a green building offers buyers and tenants the potential for reductions in the consumption and cost of both energy and water and in the generation and disposal of construction waste, improved indoor air quality, and increased worker productivity. Sellers and builders may be able to take advantage of financial and policy incentives, rising consumer demand for green buildings, and intangible benefits, such as enhanced corporate reputation and an opportunity to establish themselves early in a niche market. In addition, federal agencies and state and municipal governments are beginning to require public buildings to meet green standards. Some state and local governments have begun to extend mandates to new residential and commercial construction and major renovations. As a result of these benefits and mandates, green building is anticipated to become more prevalent. Yet green building also implicates potential added direct costs, including possible increased up-front construction costs and increased maintenance costs, as well as indirect costs such as insurance exclusions and labor issues. These costs must be accounted for in the financial projections for a green building.

### ***Legal Risks From Green Building***

In addition to the quantifiable costs of building green, parties involved with green building ventures face a risk of legal liability arising from the unique aspects of green building. For example, owners risk that their projects will fail to achieve the required or desired green building certification under standards such as the Leadership in Energy and Environmental Design Green Building Rating System (LEED, a third-party green building certification program described in more detail below). Owners also risk that their projects will fail to qualify for tax credits that are contingent upon a certain level of certification, or fail to obtain certification

within a certain amount of time, and face increased soft costs due to delays in construction or requirements for additional documentation. Design professionals may face a higher standard of care resulting from their participation as LEED Accredited Professionals, heightened liability from design defects that result in failure to achieve certification or a specific level of LEED certification, liability due to the failure of systems or components to perform adequately over the structure's lifecycle, and may trigger insurance exclusions where they warrant particular green outcomes. Contractors and subcontractors risk liability stemming from a failure to deliver features required by contract, or from green-related construction defects and can, like design professionals, trigger warranty exclusions in insurance policies if particular sustainability outcomes are guaranteed. Tenants of green buildings risk that the structure will fail to meet expectations for improved worker health and productivity and for reduced utilities costs.

### ***Bases for Legal Liability***

Liabilities associated with building green may arise from several legal theories, including contract, tort, and statute. Breach of contract claims might include breach of the implied warranty of construction materials, workmanship and purpose, failure to deliver a promised level of certification, and failure to meet energy efficiency standards. Parties may also be subject to fraud claims as a result of false or misleading statements made in marketing materials, agreements or other communications regarding the performance or attributes of green buildings. A negligence action might arise if failure or defects of a green building's design, materials, or construction techniques results in damage to the property. Green building related claims may also be made under state consumer protection statutes.

### ***Recommendations for Mitigating Legal Risks***

The risks and potential liabilities that can arise in connection with green building are surmountable, however, especially when managed with thoughtful attention to detail. To that end, we have identified four basic ways to minimize the legal risks associated with green building. First, parties can improve their project management process to aim to build green from the outset, clarify project goals and requirements up-front, use an integrated design process, and assure the flow of information among parties. Second, parties need to be attentive while drafting contracts to ensure that contractual language reflects expectations for certification, tax credits, and sustainability, sets out product specifications in a cost-effective but specific way, includes timelines and documentation requirements, provides for liquidated damages, and for lease agreements, clarifies expectations of the tenant's benefits and obligations. Third, design professionals, contractors, and owners must pay attention to their insurance policies and seek coverage for green-specific warranties or services where available. Finally, owners, tenants, and buyers need to be mindful that any disclosures and marketing materials defining expectations and risks for a green construction project are aligned with reality.

# INTRODUCTION

Green buildings have the potential to transform the built environment and its impacts on the natural environment. In the United States, buildings consume 39 percent of energy and 72 percent of electricity, and account for 38 percent of CO<sub>2</sub> emissions.<sup>1</sup> As energy prices soar, society becomes more aware of environmental sustainability issues, and cities begin to mandate more sustainable development practices, green building will increasingly become a way of life. In the public sector, President Obama and United States Environmental Protection Agency (EPA) Administrator Lisa Jackson have championed green building in federal buildings and residences as a major energy saving initiative. The American Recovery and Reinvestment Act of 2009 allocates billions of dollars to green building projects, including \$4.5 billion to convert federal buildings into high-performance green buildings. In the private sector, Cushman & Wakefield, one of the world's largest commercial real estate firms, recently entered into a voluntary agreement with EPA whereby Cushman & Wakefield agreed to reduce carbon emissions by 30 percent in more than 3000 buildings by 2012.

As green building expands from the exception to the rule, however, certain legal risks are inevitable. Many risks are particular to the green building context not because of the specific parties involved or construction methods used, but because the technology is still relatively new and unfamiliar and certain stakeholders are relatively uninformed. In order for building green to become a standard business practice, parties involved in project construction and management—owners, buyers, tenants, design professionals (including architects, engineers, and consultants), contractors, and subcontractors, to name a few—must familiarize themselves with the legal risks and liabilities associated with green building, as well as strategies to mitigate those risks.

This paper highlights the most significant legal risks associated with green building and identifies several strategies to minimize them. Our focus is on *legal* risks and is not intended to be an exhaustive risk analysis. After a brief introduction to green building and an overview of its benefits, costs, statutory mandates, and risks, we discuss three central bases for legal liability. Parties including owners, buyers, design professionals, and contractors may bring claims based on common law and statutes for breach of contract, fraud, or negligence when a building fails to meet expectations. We conclude by introducing four strategies for reducing legal risks of green building: project management, contracting, insurance, and information disclosure.

## ***What is green building?***

The EPA has defined green building as “the practice of creating structures and using practices that are environmentally responsible and resource-efficient throughout a building’s life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction.”<sup>2</sup> Simply put, green building is an effort to apply principles of environmental sustainability to every aspect of the construction of buildings. It can mean anything from locating a new construction project in a high-density area with access to public transportation –

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<sup>1</sup> U.S. Green Building Council, “Green Building by the Numbers,” Nov. 2008, available at <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1718>.

<sup>2</sup> U.S. EPA, “Green Building: Basic Information,” Apr. 16, 2008, <http://www.epa.gov/greenbuilding/pubs/about.htm>.

often called “transit oriented development” or “smart growth” – to using building materials made from reused or renewable sources, to reducing product emissions in a structure’s indoor environment, to reducing water usage through plumbing or landscaping.<sup>3</sup>

There are many ways to measure a building’s “greenness,” including several third-party certification systems. The dominant benchmark in the United States is LEED, or the Leadership in Energy and Environmental Design Green Building Rating System. LEED is a third-party certification system used to measure the design, construction, and operation of high-performance buildings and is administered by the United States Green Building Council (USGBC). LEED measures performance in six areas—sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation and design process—and has separate rating systems for homes, neighborhood development, commercial interiors, core and shell, new construction, and schools/healthcare/retail.<sup>4</sup> Each rating system includes prerequisites and assigns points within each performance area. A building achieving a certain number of points may attain Certified, Silver, Gold, or Platinum status. In addition to project certification, LEED also provides for a professional credentialing program managed by the Green Building Certification Institute (GBCI). Individuals who have completed a combination of work experience, an examination, and continuing education credits are eligible for accreditation.<sup>5</sup>

Builders retain an enormous amount of discretion as to how to achieve a desired point level. The LEED system does not specify what technologies or components a builder must use to achieve any given level and, aside from imposing prerequisites and distributing points among the six performance areas, does not require that points be achieved using a specific combination. Two buildings with the same point level for sustainable sites, for instance, may achieve that point level by including different features: one building may have included public transportation access and bicycle storage, while the other may have protected the surrounding habitat and maximized open space. Two buildings with the same total point level may have different point levels within each performance area. For example, one building may have achieved all possible points for sustainable sites without making major improvements in the energy and atmosphere category, while the other building may have stronger energy and atmosphere qualities but weaker performance in sustainable sites (meaning one building could be substantially more energy-efficient, and thus less expensive to operate, than the other). And even two buildings that achieve identical points in all the same categories could differ vastly in the components or technologies they used to achieve the points in these categories.<sup>6</sup>

## ***Benefits and costs***

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<sup>3</sup> *Id.*

<sup>4</sup> U.S. Green Building Council, “LEED Rating Systems,” <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222> (last visited Nov. 11, 2008).

<sup>5</sup> For more information about LEED accreditation, see Green Building Certification Institute, “What Is a Leed AP?,” <http://www.gbci.org/> (last visited Dec. 5, 2008).

<sup>6</sup> Other notable green building standards include Green Globes (Green Building Initiative), Model Green Home Building Guidelines (National Association of Homebuilders), Keystone Green Building Initiation and the National Green Building Standard.

Buyers, tenants, sellers, and builders enjoy varied benefits but also face costs of green building. We have highlighted the most significant benefits and costs below.

### **Buyer/tenant benefits**

There are numerous environmental and health benefits associated with green buildings. In addition to larger-scale impacts such as reductions in energy and water use and generation and disposal of construction waste, sustainable building practices offer benefits to individual buyers or tenants, such as improved indoor air quality and increased worker productivity. Economic benefits to owners, and sometimes tenants, include long-term reductions in electricity and water costs as well as potential reductions in materials costs as a result of more efficient construction techniques and maintenance costs as a result of increased durability of building materials.<sup>7</sup> Residential and commercial building owners may also be eligible for state and federal energy efficiency tax credits and rebates.<sup>8</sup>

### **Seller/builder benefits**

Sellers and builders may be able to take advantage of financial and policy incentives at the local, state, or federal level, such as tax incentives, increased floor area ratio (FAR) or density bonuses, and fast track programs that give priority in permit processing and plan review to green projects. Additionally, as consumer demand for green buildings and products rises, developers stand to profit by building green and meeting that demand. Sellers and builders may also enjoy intangible benefits of green building, such as enhanced corporate reputation, the chance to establish themselves early in a niche market, and the opportunity to develop corporate social responsibility programs.<sup>9</sup>

### **Buyer/tenant costs**

For potential buyers, tenants, sellers, and builders, the cost of green building is a major issue. While many studies have suggested that overall costs of green building are not substantially higher than for conventional construction over the life cycle of a building,<sup>10</sup> the up-front costs are often higher. Additionally, where it is difficult if not impossible to substitute other building components when original materials need to be repaired or replaced, green building-specific maintenance requirements can add to consumer costs. Finally, there is a risk that a supposedly green building will fail to achieve promised outcomes, both in the short-term (such as failure to achieve a certain level of LEED certification) and in the long-term (such as failure to meet promised energy efficiency levels).

### **Seller/builder costs**

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<sup>7</sup> Matthew J. Parlow, *Greenwashed? Developers, Environmental Consciousness, and the Case of Playa Vista*, 35 B.C. ENVTL. AFF. L. REV. 513, 522-23 (2008).

<sup>8</sup> Jason R. Busch, Rosemary A. Colliver, & Janet F. Jacobs, *Tax and Financial Incentives for Green Building*, 30 LOS ANGELES LAWYER 15, 17 (Jan. 2008).

<sup>9</sup> Parlow, *supra* note 7, at 522-23.

<sup>10</sup> Benjamin S. Kingsley, Note, *Making It Easy to Be Green: Using Impact Fees to Encourage Green Building*, 83 N.Y.U. L. REV. 532, 539 (2008).



As discussed in greater detail below, sellers and builders of green construction are vulnerable to legal claims by consumers, design professionals, and contractors, particularly with respect to sustainability outcomes and financial losses incurred as a result of failure to achieve desired outcomes. Sellers and builders may also have to deal with increased initial costs although, as noted, above, long-term costs for green construction may be less than for conventional buildings due to more efficient use of and more durable building materials. With respect to initial costs, the planning process for green construction is lengthier and involves more parties (such as sustainability consultants, energy modelers, and commissioning authorities), thereby increasing initial labor costs. Similarly, because sustainable building practices often require the use of costlier construction materials and recycling of construction waste, such practices may also add to an increase in initial construction costs. While certain classes of owners (particularly institutions such as hospitals and universities) will be better able to shoulder these costs, the higher initial investment and the longer payback period for green buildings may be problematic for developers in the private sector, who generally require a more rapid return on their investments.<sup>11</sup> Additionally, some insurance policies may not provide coverage for construction contracts that include warranties on sustainable outcomes,<sup>12</sup> and local zoning ordinances and building code requirements, enacted before the emergence of green building, might conflict with components of green building project proposals, resulting in additional delays and expenses.<sup>13</sup> Finally, builders and sellers could face opposition from labor unions, whose members may lack adequate training in green building and/or argue that the increased up-front cost of green building practices will reduce profit margins and impact wages.<sup>14</sup>

### ***Green building mandates***

While there are clear benefits to entering the green market early, evidence indicates that green building may also become increasingly difficult to avoid. Many federal agencies and state and municipal governments now require that public buildings meet green standards.<sup>15</sup> In addition, some state and local governments have begun to extend green building mandates to new residential and commercial construction and major renovations as part of their efforts to address climate change. According to an inventory compiled by the University of Wisconsin-Extension, as of May 2008, there were 134 mandatory government green building programs and 85 voluntary programs in place in 118 counties, municipalities, and districts in the United

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<sup>11</sup> *Id.*; Stephen T. DelPercio, *The Skyscraper, Green Design, & the LEED Green Building Rating System: The Creation of Uniform Sustainable Standards for the 21<sup>st</sup> Century or the Perpetuation of an Architectural Fiction?*, 28 ENVIRONS ENVTL. L. & POL'Y J. 117, 132-35 (2004); Busch et al., *supra* note 8, at 15.

<sup>12</sup> Meredith DuBarry Huston, *Sustainable Building: Anticipate Potential Liability to Manage Risk*, LEGAL INTELLIGENCER, June 19, 2008, at 5; Jeffrey D. Masters & John R. Musitano, Jr., *Managing Liability Risks in Green Construction*, 30 LOS ANGELES LAWYER 17 (Dec. 2007). Since sustainability riders are considered to be warranties, their use can have a substantial impact on insurance availability or costs.

<sup>13</sup> Edna Sussman, *Reshaping Municipal and County Laws to Foster Green Building, Energy Efficiency, and Renewable Energy*, 16 N.Y.U. ENVTL. L.J. 1 (2008).

<sup>14</sup> Jennifer Bowmar & Laurie Wireman, Comment and Case Note, *Hopping on the Green Wagon: How Corporations Can Overcome Potential Political and Legal Pitfalls Associated with Sustainability Initiatives*, 76 U. CIN. L. REV. 1479, 1486 (2008).

<sup>15</sup> For more information on public sector organizations that have incorporated green building standards, please see *The Government Green Buildings Inventory Program* at <http://www4.uwm.edu/shwec/publications/cabinet/reductionreuse/GGBI.swf>.

States.<sup>16</sup> Between 2004 and 2008, the number of government green building programs more than tripled.

For example, in 2008, the State of California adopted Part 11 of its state building code – known as the California Green Building Standards Code – and is in the process of updating that Part to include comprehensive, mandatory green building requirements for all occupancies starting in 2010.<sup>17</sup> At the municipal level, the City of Boston adopted Article 37 on Green Buildings under its municipal zoning code. Article 37 requires all “large projects” (generally buildings over 50,000 square feet) to be “LEED certifiable” as a condition of project approval.<sup>18</sup> This includes the submission of a “LEED scorecard,” “appropriate supporting documentation,” and “certification from a LEED accredited professional and/or other expert recognized by the Boston Redevelopment Authority”<sup>19</sup> during the project review process. However, beyond demonstrating that the project is LEED-certifiable at the approval stage, it is unclear how this standard is verified once the project is constructed. As a result, it is difficult to determine the impact that the ordinance is having on local development in practice.

Efforts to mandate green building may also face legal challenges based on claims of vagueness, ambiguity, improper delegation of authority, or preemption. For example, in *Air Conditioning, Heating and Refrigeration Institute et al. v. City of Albuquerque*, the United States District Court for the District of New Mexico issued a preliminary injunction against the City of Albuquerque barring enforcement of its Energy Conservation Code (ECC). The ECC requires a minimum certification of LEED-silver for commercial and multi-family residential buildings or a 30 percent energy efficiency improvement over the baseline energy efficiency standards for commercial buildings included in the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) 90.1 Code.<sup>20</sup> The Court found that the City was preempted from regulating the energy efficiency of heating, ventilating, and air condition (HVAC) systems by federal statute.<sup>21</sup> This case illustrates potential conflicts between municipal regulation of green building and green building efforts at the state and/or federal level. Despite the debates over how best to regulate and implement green building requirements, mandates at the municipal, state and federal level are likely to become more common as the public gains interest in climate change initiatives and other green objectives, providing another justification for fully understanding the risks and potential liabilities of building green.

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<sup>16</sup> SOLID & HAZARDOUS WASTE EDUCATION CENTER, UNIVERSITY OF WISCONSIN-EXTENSION, GOVERNMENT GREEN BUILDING PROGRAMS INVENTORY, *available at*

<http://www4.uwm.edu/shwec/publications/cabinet/reductionreuse/GGBI.swf> (last visited March 3, 2009).

<sup>17</sup> 2007 California Green Building Standards Code, 24 C.C.R. §11 (2008), *available at*

[http://www.documents.dgs.ca.gov/bsc/prpsd\\_stds/2007/2007\\_cgbsc\\_9-23-08.pdf](http://www.documents.dgs.ca.gov/bsc/prpsd_stds/2007/2007_cgbsc_9-23-08.pdf) (last visited Dec. 5, 2008).

<sup>18</sup> BOSTON, MASS., ZONING CODE art. 37-4 (2007).

<sup>19</sup> BOSTON, MASS., ZONING CODE art. 37-5 (2007).

<sup>20</sup> *Air Conditioning, Heating and Refrigeration Institute v. City of Albuquerque*, No. 08-633, slip op. at 3 (D.N.M. Oct. 3, 2008) (order granting preliminary injunction).

<sup>21</sup> *Id.* at 23 (“Unfortunately, the drafters of the Code were unaware of the long-standing federal statutes governing the efficiency of certain HVAC and water heating products and expressly preempting state regulation of these products”).

## **Risks**

Just as every party involved in a conventional construction project is vulnerable to risks associated with the project not going as planned, the same is especially true for parties to green building projects. While many risks of green building are identical to the risks of conventional construction, the addition of sustainability/efficiency benchmarks and the need to attain a certain level of certification change the playing field to some extent. Key areas where these risks to project owners, design professionals, contractors and subcontractors, and tenants differ from conventional construction risks are identified below.

### **Project owners<sup>22</sup>**

- Failure of a project to achieve certification or an anticipated level of certification. This risk is particularly significant in areas where large new construction projects are required to meet certain sustainability standards.<sup>23</sup>
- Failure to qualify for tax credits that are contingent upon a certain level of certification, or upon certification being achieved within a certain amount of time.<sup>24</sup>
- Failure to meet loan or incentive program requirements if construction is not as “green” as originally planned, where loans or incentive programs are tied to achieving certification or sustainability outcomes.
- Increased soft costs due to delays in construction or requirements for additional documentation (in addition to the already greater up-front costs of green building).
- Failure to meet anticipated or stated claims in marketing or promotional materials for a development project.

### **Design professionals**

- Higher standard of care resulting from participation in the building process as LEED Accredited Professionals.
- Design defects that result in failure to achieve certification or a specific level of LEED certification.
- Liability due to the failure of systems or components to perform adequately over the structure’s lifecycle.
- Exclusion of warranties and services in the green building context from insurance policies, or added insurance costs.

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<sup>22</sup> By using “owners,” we intend to include a variety of project owners in our discussion, including institutions, developers, individuals, and municipalities.

<sup>23</sup> See, e.g., BOSTON, MASS., ZONING CODE art. 37 (2007).

<sup>24</sup> There has already been at least one lawsuit resulting from failure to achieve anticipated tax credits associated with a state-level green building program. In *Southern Builders, Inc. v. Shaw Development, LLC*, a Maryland developer of a condominium project applied for a LEED Silver rating for the development, which would have made the project eligible for \$635,000 in state tax credits. Counter-Complaint at 4, *Southern Builders, Inc. v. Shaw Dev., LLC*, No. 19-C-07-011405 (Md. Cir. Ct. Feb. 16, 2007). However, a certificate of occupancy, which was necessary to obtain LEED certification, was not achieved within the requisite amount of time, and the developer failed to earn the tax credits. When the general contractor filed a mechanic’s lien against the project, the developer counterclaimed for the lost tax credits. The case settled out of court, but it remains an illustration of the importance of contracting for green building-specific goals and risks.

## **Contractors/subcontractors**

- Failure to deliver features as promised by contract.
- Construction defects such as improper installation that may result from a failure to understand the system-wide role of an individual building component.
- Failure of structure or systems/components to perform as intended over the lifecycle of the building.
- Insurance coverage exclusions or costlier insurance policies.

## **Tenants**

- Failure of a structure to meet expectations for improved worker health and productivity and for reduced utilities costs (where tenants are responsible for utilities expenses). Because tenants may seek out commercial or residential space in green buildings specifically as a result of the health and efficiency benefits commonly associated with green buildings, their expectations may be especially high.

## **BASES FOR LIABILITY**

Since there is still very little legal precedent addressing green building claims, our analysis of potential claims is based largely on an extrapolation of how existing theories that form the basis for suits arising in the construction context might apply in the green building context. We discuss three main bases for legal liability: breach of contract, fraud, and negligence. It is important to remember that a single action may give rise to a lawsuit based on several legal theories, including both contract and tort claims. For example, where an injury to property is caused by conduct that rises to the level of an independent tort and arises out of a special contractual relationship, breach of contract and tort claims may both be actionable.<sup>25</sup> Additionally, parties may be able to bring claims under theories arising in both common law (such as breach of contract) and pursuant to statute (such as consumer protection statutes). Such claims are not mutually exclusive and are likely to be brought together. Parties and their attorneys should keep in mind that claims and remedies (as well as their availability to different parties) will differ from state to state, as will the standard of proof required to state a claim. Knowledge of laws in the particular jurisdiction in which one is building or contracting is essential.

### ***Breach of contract***

Breach of contract claims are likely to be the major vehicle for bringing claims related to green construction by and among design professionals, contractors, developers, and consumers. It is therefore significant that the parties to a construction contract can (and often do) stipulate to terms and remedies so long as the contractual provisions are not unconscionable, against public policy, or prohibited by statute.<sup>26</sup> The law governing contract claims is comprised of a common

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<sup>25</sup> 6 BRUNER & O'CONNOR CONSTRUCTION LAW § 19:9 (2008).

<sup>26</sup> *Id.* § 19:52.

law backdrop, which provides the basic vehicle to bring such claims, and depending on the jurisdiction where the claim is pursued, applicable statutes may provide a vehicle to recover increased damages.

## **Parties**

Parties that may bring or be the target of a contract claim include owners, contractors, subcontractors, and design professionals, so long as the plaintiff(s) and defendant(s) were all parties to the same contract, or the plaintiff was a third-party beneficiary of a contract between two other parties. Additionally, counterclaims among these parties are common.

## **Claims**

A party wishing to bring a breach of contract claim must prove: 1) the existence and terms of a valid and enforceable contract for services rendered; 2) that the nonbreaching party complied with all material conditions precedent to the breaching party's performance; 3) that the breaching party breached the contract by failing to perform in accordance with its terms; and 4) that the breaching party's breach caused the defects or injury for which the non-breaching party is seeking relief.<sup>27</sup>

In the green building context, common breach of contract claims might include breach of the implied warranty of fitness or suitability of construction materials, workmanship and purpose; failure to deliver a promised level of certification; or failure to meet energy efficiency standards. Owners may sue contractors and subcontractors for breach of the implied warranty of fitness or suitability of construction materials, workmanship and purpose. They may sue contractors and subcontractors, as well as design professionals, for failure to deliver a promised level of certification and failure to meet energy efficiency standards. Depending on the language in their contracts, a general contractor may be entitled to assert indemnification claims against a subcontractor if it was the subcontractor and not the general contractor who ultimately caused a construction defect. Of course, if an owner refuses to pay an architect or contractor because it believes the work performed was defective or did not meet the terms of the contract, the architect or contractor may sue for nonpayment, at which point the owner can counterclaim for breach of contract.

## **Defenses**

There are four primary defenses to a breach of contract claim in the construction context. First, a defendant can argue that it did not cause breach of the contract. Based on specific language in the contracts or accompanying documents regarding sustainability goals, product specifications, and how particular components or systems ought to be constructed, this defense may be more or less viable for contracting parties to green building projects. Second, a defendant can argue that it substantially performed the contract. Substantial performance is generally defined as the point at which the work can be used for its intended purpose, and if a defendant is able to show substantial performance, the remedies available to the plaintiff are

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<sup>27</sup> Eric M. Larsson, *Cause of Action for Breach of Contract for Construction or Repair of Residence*, 37 CAUSES OF ACTION 2d 159 § 17 (2008).

limited. Third, a defendant can argue that a plaintiff agreed to reformation of the contract or waived defects in the defendant's performance of the contract; this may be a common defense given that such waivers are included routinely in the express terms of a construction contract. Finally, a defendant can argue that it did not cause the defects for which the plaintiff seeks recovery. Subcontractors will be better able to raise this last defense, since a general contractor will have to answer under the general construction contract for defects in performance caused by poor workmanship of subcontractors.

## **Remedies**

Contracting parties can and often do stipulate to remedies for failure to perform one or more elements of a contract. Outside of stipulated remedies, non-breaching parties may be able to obtain equitable, direct, or consequential damages, as well as broader damages afforded by consumer protection statutes.

Equitable relief, such as rescission of the contract, is available if a defendant's breach of contract is material, meaning that future performance is impossible and compensatory damages will not adequately compensate the non-breaching party.<sup>28</sup> Although the violation of laws, ordinances, and regulations, which presumably include local green building ordinances, can militate in favor of finding a material breach, it is an open question whether failure to achieve LEED certification or energy efficiency standards in an otherwise functional building will constitute a material breach.

Direct damages are also available and are usually measured as the cost to repair defects, though where the cost of repair is disproportionate to the loss in value, courts will determine direct damages by measuring the diminution in value of a structure's market price due to the defects in construction. It is unclear how a court would calculate direct damages in a green building breach of contract suit. On the one hand, the cost to repair green building components, which, in some instances, might require tearing out entire systems and/or building materials, could be exorbitant; on the other hand, failure to achieve sustainability outcomes may be considered mere cosmetic defects if a building is otherwise functional.

In addition to direct damages, a non-breaching party may be able to recover additional consequential damages, such as lost profits due to the breach of contract. Since developers of green buildings in some areas may be eligible for tax credits or rebates if their buildings attain a particular certification level, the failure to construct a green building according to the terms of a contract may result not only in failure to achieve LEED certification but also in the loss of anticipated tax credits that would have accompanied certification. It is unclear whether such a loss would be recoverable as consequential damages.

## **Issues**

Several green building-specific issues arise around breach of contract claims. The claim of breach of the implied warranty of fitness and suitability of construction materials, workmanship and purpose is particularly problematic. If a buyer's claim is that a structure has

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<sup>28</sup> RESTATEMENT (SECOND) OF CONTRACTS §§ 241-42 (2008).

failed to live up to its promised efficiency or sustainability outcomes, but the structure is otherwise functional, it might still meet standards of fitness and workmanship.<sup>29</sup> Additionally, parties often look to local building codes and ordinances as well as standard industry practices to establish minimal standards of good workmanship. However, green building methods are sometimes so new that there are not yet standard industry practices or uniformity among municipal codes with green building provisions.<sup>30</sup> While LEED standards at first appear to be a natural starting point for establishing standard industry practices, the LEED system is not sufficiently prescriptive as to building practices and techniques to be helpful in this context since certification can be pursued in a number of ways. The question of identifying minimal standards of good workmanship in the green building context thus remains open.

A major issue with respect to contract claim defenses arises under the defense of substantial performance. It is unclear what would constitute substantial performance of a green building construction contract; such a determination may hinge on whether the contract was written so as to define the essential purpose of the project as the construction of a green, sustainable, or efficient building. If this is not the case, and a building that fails to meet desired sustainability outcomes is otherwise functional, it becomes easier to show substantial performance of the terms of the contract. On the other hand, it may be more difficult to show substantial performance if substantial performance is measured by the impact of the defendant's actions on the market value of a building and green construction commands a premium over conventional construction.

### ***Tort and Statutory Claims: Fraud***

Parties may be subject to fraud claims as a result of false or misleading statements made in marketing materials, agreements or other communications regarding the performance or attributes of green buildings.

#### **Parties**

High buyer expectations and a lack of uniform standards with respect to “green” construction will mean that owners may be subject to increased liability where buildings fail to live up to residential and commercial buyer or tenant expectations. These include when owners:

- Market a building as “green” without reference to a specific standard, buyers and tenants may expect heightened performance;
- Market a building with reference to a specific green standard and then fail to achieve certification or the advertised level of certification;
- Inaccurately refer to certain products or attributes of a building as green;
- Misrepresent the performance of a green building in terms of lower maintenance costs, improved indoor environmental quality and worker productivity, reduced energy costs; and/or

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<sup>29</sup> Masters & Musitano, *supra* note 12, at 18.

<sup>30</sup> Huston, *supra* note 12.

- Fail to disclose design defects resulting from green alterations to traditional building design.<sup>31</sup>

Design professionals could also face many of the same issues with respect to misrepresentation in their interactions with owners, particularly in relation to design defects. General contractors would be subject to liability for fraud where they misrepresent the origin or types of materials used in a building such that an owner fails to achieve certification or a desired level of certification, or improper construction or use of materials leads to performance failures in the building.

## Elements of a claim

Parties may bring fraud-related claims under both common law and state consumer protection fraud statutes and false advertising laws.<sup>32</sup> Although specific standards will vary from state to state, parties bringing claims under the common law will generally be required to show:

- Misrepresentation of a material fact, material fact being defined as something that has a “significant and measurable effect on the value or desirability of the property;”<sup>33</sup>
- Defendant knew or should have known that the representation was false;
- Intent to induce action on the part of the other party;
- Justifiable reliance by the defrauded party; and
- Damages as a proximate cause of the misrepresentation.<sup>34</sup>

## Statutory Claims

While fraud claims require a relatively high burden of proof that may be difficult for parties to meet under the common law, there are additional statutory claims that may be easier to prove and that parties may bring under state consumer fraud and false advertising statutes.<sup>35</sup> These statutes differ from state to state in terms of the parties that may bring claims, the elements required for recovery, and the related requirements for bringing a class action. For example:

- **Parties eligible to bring claims:** Under the Pennsylvania Unfair Trade Practices and Consumer Protection Law,<sup>36</sup> only individual consumers may assert claims, meaning that statutory claims are likely to be limited to buyers or renters of residential homes. By contrast, under the New Jersey Consumer Fraud Statute<sup>37</sup> and the California Business and Professions Code 17200,<sup>38</sup> commercial parties are also entitled to bring claims related to commercial construction.

<sup>31</sup> Masters & Musitano, *supra* note 12, at 17; Huston, *supra* note 12.

<sup>32</sup> There is no legislation at the time of writing that specifically addresses liability with respect to green building. However, the FTC federal “green guides” may be revised to include green building.

<sup>33</sup> Masters & Musitano, *supra* note 12, at 18 (citing *Shapiro v. Sutherland*, 64 Cal. App. 4<sup>th</sup> 1534, 1545 (1998)).

<sup>34</sup> 37 Am. Jur. 2d *Fraud and Deceit* § 26 (2008).

<sup>35</sup> See, e.g., California False Advertising Law, CAL. BUS. AND PROF. CODE ANN. § 17500-17580 (West 2008).

<sup>36</sup> Pennsylvania Unfair Trade Practices and Consumer Protection Law, 73 PA. STAT. ANN. §§ 201-1 – 201-9.2 (West 2008).

<sup>37</sup> New Jersey Consumer Fraud Statute, N.J. STAT. ANN. 56:8-1 (West 2008).

<sup>38</sup> CAL. BUS. AND PROF. CODE ANN. § 17200 (West 2008).



- **Elements required for recovery:** Pennsylvania courts largely maintain the common law requirements for recovery under certain statutory based fraud-related claims,<sup>39</sup> whereas New Jersey and California courts have done away with individual reliance requirements for establishing statutory violations, instead basing their reliance standards on whether the misrepresentation has the “capacity to deceive.” In addition, these latter states require the defrauded party to demonstrate an “ascertainable loss” by proving that the defrauded party saw the misleading material and purchased the building.<sup>40</sup>
- **Class action requirements:** New Jersey and California’s lower standard for establishing reliance for fraud-related statutory claims may make such claims easier to pursue in a class action posture because individual issues may be avoided. For example, where marketing materials are considered to be deceptive, an owner could be subject to class action litigation under the California or New Jersey model.<sup>41</sup>

## Remedies

Remedies under the common law include the recovery of actual damages. For a buyer or owner, this would mean recovering the difference between the purchase price and the actual value of the property at the time of sale had the defects been known.<sup>42</sup> Additional remedies such as rescission of the contract, restitution or recovery of costs, and punitive damages may be available pursuant to statute. Statutory claims may also result in an award of attorney’s fees. Owners, design professionals and general contractors are advised to familiarize themselves with the details of the statutes in each of the states in which they work and/or contract, as some statutes, such as the New Jersey Consumer Fraud Statute, may involve automatic damages for violations of the statute or its regulations.<sup>43</sup>

## ***Tort claims: Other negligence claims***

Specifically within the green building context and separate from fraud or misrepresentation claims, a negligence action might arise if failure or defects of a green building’s design, materials, or construction techniques results in damage to the property or personal injury. Where one party has failed to meet the standard of care for its profession, that

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<sup>39</sup> Pennsylvania appellate courts are currently split over the required elements of a claim brought under the catch-all provision of the Pennsylvania Consumer Protection Statute, with the Superior Court requiring plaintiffs to prove the same elements as under the common law, and other appellate courts, including the Commonwealth Court, relaxing common law requirements related to knowledge and intent, as well as reliance. Required elements related to specific misrepresentation claims under the statute are similar to the latter interpretation. See Stephen Buckingham, *Distinguishing Deception and Fraud: Expanding the Scope of Statutory Remedies Available in Pennsylvania for Violations or State Consumer Protection Law*, 78 Temp. L. Rev. 1025 (Winter 2005); Angela Davis, *Commonwealth v. Manson: Dueling Opinions from the Appellate Courts of Pennsylvania over Consumer Protection*, 17 Widener L.J. 431 (2008).

<sup>40</sup> 61 Cal. Jur. 3d Unfair Competition § 4; Lisa J. Trembly & Michael F. Bevacqua, *Back to the Future with the Consumer Fraud Act: New Jersey Sets the Standard for Consumer Protection*, 29 Seton Hall Legis. J. 193, 197 (2004).

<sup>41</sup> Masters & Musitano, *supra* note 12, at 18.

<sup>42</sup> *Id.*

<sup>43</sup> See, e.g., *Cox v. Sears Roebuck & Co.*, 647 A.2d 454 (N.J. 1994) (holding that award of treble damages and attorney fees was mandatory under New Jersey Consumer Fraud Act upon proof of merchant’s unlawful practice and homeowner’s ascertainable loss).

party may be subject to claims of malpractice or professional liability. Since assurances that design professionals provide regarding certification or aspects of a building's design constitute express warranties, design professionals will generally not be insured against any potential failure of a building to conform to express warranties.<sup>44</sup> Those assurances may thus form a basis for liability that an insurance policy will not cover.

## Parties

Contractors may bring negligence and malpractice claims against design professionals on the basis that any defects in the structure causing the building to fail to meet sustainability outcomes were a result of faulty design. Similarly, design professionals may claim against contractors and subcontractors on the basis that defects were due to a faulty construction process. Owners may bring both defective design claims against architects and defective construction claims against contractors and subcontractors. Additionally, in some jurisdictions, subsequent purchasers of a green building may bring a negligence action against a builder for personal injury or property damage resulting from latent defects.<sup>45</sup> The end-users or consumers can bring negligence claims against some or all of the above.

## Remedies

The remedy available for negligence claims is damages, which are usually measured as the lesser of cost of repair or diminution in value.<sup>46</sup> Punitive damages require egregious conduct and thus are not generally available in negligence suits.<sup>47</sup>

## Issues

Parties contemplating negligence lawsuits should be aware of two significant green building specific issues. First, to establish tort liability (and, more specifically, to establish professional liability), an injured party needs to show that a defendant failed to meet the applicable standard of care. To establish the standard of care, parties often obtain expert testimony on industry practices. Because green building technologies are relatively new and still evolving and because there is currently no uniformity among green building standards, however, it may be difficult to reach agreement upon an applicable standard of care. While the LEED rating system is used nationally as a benchmark, it contains a large degree of flexibility in how builders may achieve any given level of LEED certification. As described above, two buildings achieving the same level of certification and even the same points may use very different components and construction techniques, meaning that LEED standards may be too amorphous to form an industry standard of care. At a minimum, opposing parties will be able to argue that the court should adopt a more or less stringent standard of care depending on their positions.<sup>48</sup>

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<sup>44</sup> See Huston, *supra* note 12.

<sup>45</sup> See, e.g., Krieger v. Eichler Homes, Inc., 74 Cal. Rptr. 749 (Cal. Dist. Ct. App. 1969).

<sup>46</sup> Masters & Musitano, *supra* note 12, at 18. Diminution in market value is sometimes recoverable even if it is greater than the cost of repair.

<sup>47</sup> 6 BRUNER & O'CONNOR CONSTRUCTION LAW § 19:3 (2008).

<sup>48</sup> Masters & Musitano, *supra* note 12, at 18.

Parties contemplating negligence actions relating to green building defects must also keep in mind the statute of limitations for such actions in their jurisdiction. Statutes of limitations vary from state to state and are sometimes different for tort and contract claims within the same state. Furthermore, certain green building defects, such as the failure to achieve promised energy efficiency outcomes or a building component's failure to attain a certain lifespan, are inherently latent and cannot be discovered during or immediately following construction. Tolling of the statute of limitations, which involves a determination of when a plaintiff knew or should have known of a defect for purposes of meeting the statute of limitations, will therefore be important in this context.

## **RECOMMENDATIONS FOR MITIGATING LEGAL RISKS**

There are many strategies available to parties who wish to reduce the legal risks associated with green building. Many of these strategies will also reduce total costs and result in a superior finished product that better meets expectations. Our recommendations are not meant to be exhaustive, but rather focus on actions specifically related to addressing *legal* risks in green building transactions. For a list of resources on best practices in project management for green buildings generally, *see* Appendix.

We have identified four basic ways to minimize legal risks. First, parties can improve their project management process to aim to build green from the outset, clarify project goals and requirements up-front, use an integrated design process, and assure the flow of information among parties. Second, parties should be attentive while writing contracts so that contract language reflects expectations for certification, tax credits, and sustainability; sets out product specifications in a cost-effective but specific way; includes timelines and documentation requirements; provides for liquidated damages; and, for written lease agreements, clarifies expectations for the tenant's benefits and obligations. Third, design professionals, contractors, and owners must pay attention to their insurance policies to make sure any green-specific warranties or services are covered. Finally, owners as well as tenants and buyers should be careful regarding disclosures and marketing materials to make sure expectations surrounding a construction project are aligned with reality.

### ***Project management***

Project management provides an important method to minimize legal risks and potential liabilities. As the above discussion indicates, such risks and potential liabilities often relate to the failure of a green building to achieve an expected level of performance or standard of certification. Discussions with green building experts working in commercial, institutional and residential settings, along with a review of key resources, suggest that many of these problems can be effectively addressed up-front through the project management process.

Recommendations to minimize legal risks and liabilities through project management include:

- Aim to build green from the outset;
- Clarify project goals and requirements up-front;
- Use an integrated design process; and

- Assure the flow of information between parties.

### **Aim to build green from the outset**

Aiming to build green from the outset provides additional flexibility for achieving green-related standards and goals and often does so at less cost. In comparison to projects that revise a conventional design to meet green standards, projects designed green from the beginning require less time and money overall to compensate for conflicts between green goals and other design requirements and provide more control in pursuing owner and/or tenant goals.

### **Clarify project goals and requirements up-front**

It is important for owners to establish specific project requirements, goals, and a framework for performance measurement at the outset of the project. This includes identification of green-related or sustainability goals and requirements, as well as the desired level of certification where relevant. Where owners will be leasing the space, it is important to ensure a clear understanding of the tenant's requirements and uses. Identifying project goals and requirements:

- Reduces the potential for misunderstanding between owners and tenants regarding the expected performance or certification level of the building once completed;
- Clarifies expectations among owners, designers, and contractors up-front in terms of what is required for the project and provides a basis for establishing clear roles and responsibilities in the design and construction process; and
- Provides the potential to reduce project time and costs resulting from miscommunication among parties or from the owner or tenant changing their minds as to what they desire out of the project.

### **Use an integrated design process**

Using an integrated design process (IDP) can facilitate successful design and construction of a project. While there are many ways to conduct an IDP, the key difference between an IDP and a conventional design process is that an IDP involves a multi-disciplinary team of architects, engineers, owners, tenants, contractors, attorneys (depending on the delivery method), and other consultants working together from the inception of the project. In contrast to the traditional process, in which the engineers, architects and contractors work separately in a linear fashion, an IDP provides an opportunity for engineers, architects and contractors to work together in addressing problems caused by different aspects of the design. Where executed successfully, an IDP improves the chances that the design and structure of the building will work together, that the design will be viable for construction, and that the project will achieve targeted certification points. Although use of an IDP may lead to additional up-front design costs, these costs are typically offset in savings in materials and time elsewhere in the project, as well as through a higher-quality outcome.

Certain project delivery methods (i.e., how a project proceeds from design to finished construction) may allow for better facilitation of an IDP than others. The traditional delivery method is known as the Design-Bid-Build process, in which a project is designed by separate

teams of engineers and architects, and then put out for bidding to general contractors that will be responsible for building the project according to developed designs. The Design-Bid-Build project delivery method is not ideal when employing an IDP, however, because the distinct phases inherent to this method discourage initial and ongoing collaboration among the parties involved in a construction project. Design-Build, in which one firm is hired to design and build the project from the beginning, or Construction Manager At-Risk in which a construction manager is hired at the design phase to provide planning, estimating and scheduling services to the architects and owner of the project, and then acts as the general contractor during the construction phase, are two alternative project delivery methods that are more commonly used for integrated projects.<sup>49</sup> In contrast to the Design-Bid-Build method, the Design-Build and Construction Manager At-Risk methods provide opportunities to involve the construction and design parties earlier in the process and as part of one team. While private parties can take advantage of these alternative project delivery methods in the context of green building, public procurement requirements for competitive bidding often force public entities to employ the Design-Bid-Build method. However, some states, such as California and Washington, are providing their agencies as well as certain counties and cities with additional powers to pursue alternative delivery methods such as Design-Build and Construction Manager At-Risk for larger contracts.

### **Assure information flow**

In addition to using an integrated design process, it is important to assure the flow of information throughout project development in order to reduce defects in design and construction, particularly where some parties may be new to green building. Measures to assure information flow include:

- Holding meetings with the design team to review project requirements and goals;
- Clarifying additional documentation and other certification-related requirements, particularly with general contractors and attorneys;
- Holding meetings with general contractors, subcontractors, and attorneys to ensure that they understand the purpose of green-related requirements; and
- Providing additional training and materials to subcontractors where necessary.

Explaining the purpose behind unique or “green” aspects of the specifications increases the likelihood that contractors and subcontractors will purchase suitable materials and products, and then install them correctly.

### ***Contracting***

Almost all risks we have identified can be mitigated to at least some extent during the contracting process by ensuring that all contracts and accompanying documents accurately reflect the contracting parties’ expectations and obligations. Specifically, contract language (including riders and/or attachments, if used) should include specifications for certification, tax credits (where applicable), and sustainability goals; product specifications attached to contracts

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<sup>49</sup> AMERICAN INSTITUTE OF ARCHITECTS CALIFORNIA COUNCIL, A WORKING DEFINITION: INTEGRATED PROJECT DELIVERY 10 (2007).

should specify a range of products to be used according to a set performance standard; timelines and documentation requirements should be added to create a schedule for compliance; liquidated damages clauses, if used, should identify which parties will be responsible in the event of a failure or defect;<sup>50</sup> and leasing documents should clarify the tenant's expectations and obligations.

Contracting parties who wish to use model agreements as a basis for their contracts should endeavor to use green building-specific forms. Where green building-specific forms are unavailable, parties should make sure to add new language or alter existing language to provide for their needs. As a starting point, some industry associations have created a set of model contract documents that parties may adopt or modify. For example, the American Institute of Architects (AIA) Contract Documents set includes model agreements between owners and contractors, owners and architects, architects and consultants, and owners and vendors. They also include agreements on general conditions and scope of services.<sup>51</sup> More recently, AIA Contract Documents have been revised to include provisions for commissioning, LEED certification, and integrated project delivery, signaling an increased recognition of green building and the need for agreements that provide specifically for the delivery of green building-related services.

### **Contract language for certification, tax credits, sustainability, and maintenance**

Contracting parties must decide whether to include provisions for third-party certification and whether to do so in the main contract, in specifications, in attached riders, or through some combination of the three. If the owner is seeking a specific level of certification in order to qualify for tax credits, it should seek to make its expectations of achieving the certification and attaining the tax credits clear in the contract. Furthermore, where a project is being constructed under a mandate to produce green buildings, explicit contractual provisions regarding certification may be required. However, specifying certification in the contract itself can lead to added costs, so contracting parties might wish to provide for certification without specifying as much in the contract document. Instead of specifying in the contract that a project will attain a specific level of certification, the accompanying specifications can provide that certain building components shall be used such that the use of those components will satisfy the requirements for that certification level.

We recommend that if an owner desires to achieve a specific sustainability outcome, it should ensure that its construction contracts are specific as to expected sustainability outcomes regardless as to whether tax credits are contingent upon certification or there is a green building mandate. While it is certainly possible to produce a building that will achieve a desired certification or sustainability outcome through careful construction of specifications, and although some owners may not be concerned about achieving a particular level of certification,

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<sup>50</sup> While liquidated damages clauses may be preferable from a project owner's point of view, our conversations with design professionals revealed that very few if any design professionals would be likely to assume risk under a liquidated damages provision.

<sup>51</sup> See American Institute of Architects, "AIA Contract Documents," <http://www.aiacontractdocuments.org/> (last visited Dec. 5, 2008).

specifying a certification level in the contract itself will further ensure that all contracting parties have the same expectations of the completed building. In order to accommodate the inevitable changes in standards for certification and ensure that projects will meet the most up-to-date certification requirements, contract documents should refer to third-party certification requirements and attach those requirements in a separate rider. It is important to remember, however, that if design professionals make any warranties in a contract to the effect that a building will achieve a specific level of certification, they may assume a high amount of risk, since insurance policies often do not cover such warranties.<sup>52</sup> Design professionals may therefore be less willing to agree to contract provisions that stipulate to specific certification levels.

Contract language can also address longer-term performance issues within a green building. If contracting parties wish to provide for future maintenance, they must be aware that the relatively new and rapidly evolving technologies associated with green buildings make maintenance a potentially significant area of liability. If a company that manufactured a particular component goes out of business and can no longer repair or replace a defective component, or if a building component malfunctions and replacement parts are no longer available, a building owner may want to sue the contractor or design professional who provided for the use of that component. Including contract language specifying who will bear responsibility for maintenance of building components will help prevent litigation over maintenance in the future.

## **Product specifications**

Product specifications, which are usually referred to in contracts and attached as a separate document, are an important way in which parties can ensure that a building will be constructed according to expectations. Product specifications may take two forms: (1) proprietary specifications specifying by brand name exactly what building components contractors and subcontractors must use, and (2) performance-based specifications that do not require the use of a specific brand or model but instead set minimum performance attributes that components must meet. While the use of proprietary specifications eliminates confusion and ensures that the owner's expectations will be met even as responsibilities are handed down to subcontractors, they are much more expensive since they shut out competitive production that may be of equal performance. And although performance-based specifications enable contractors and subcontractors to comparison-shop and use less expensive components with equivalent performance, the owner must be prepared to review project submittals much more carefully to ensure that the proposed components meet the developer's requirements. A hybrid of these two approaches, the use of performance-based specifications that identify three (or some other number) equal products that all meet the required performance standards and from which the contractor can choose the most cost-effective option, allows owners to be specific as to their expectations while allowing contractors and subcontractors some room to reduce costs, while still complying with the terms of the contract.

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<sup>52</sup> See Huston, *supra* note 12.

## **Timelines and documentation requirements**

Contracts can go further than merely specifying what the completed structure will look like and when it will be completed. Construction-phase requirements can be written in to impose intermediate deadlines requiring that contractors and subcontractors follow a specific timeline and complete specific components by specific dates, and to include documentation requirements so that owners can follow the progress of construction more closely. Including timelines and documentation requirements increases the likelihood that any errors regarding components or building techniques will be detected earlier, when it is easier to fix them or to revise other construction plans so that the desired certification and sustainability outcomes are still achievable.

For contracts that include force majeure provisions, which dictate when events outside the contracting parties' control might remove the obligation to perform the contract as contemplated, the parties should be aware that what constitutes a force majeure event might be substantially different in the green building context and may differ from state to state. For example, if a certain building material or component that was integral to the sustainability goals of a project is no longer available because its manufacturer is no longer in business, it will be impossible for a contractor fully to comply with the terms of the contract. Parties should consider what constitutes a force majeure specifically in the green building context so that they can come to agreement about what circumstances will permit nonperformance of contractual obligations and a process for pursuing modifications.

## **Liquidated damages and indemnification**

Even the most carefully thought out construction projects do not always go according to plan. A construction contract should therefore include liquidated damages clauses that assign liability to one or more parties in the event that the completed building fails to achieve desired sustainability outcomes. While stakeholders will retain their expectations that completed projects meet initial sustainability goals, liquidated damages clauses will at least minimize lengthy and costly litigation over damages.

Additionally, contracting parties should endeavor to provide for the payment of attorneys' fees in the event of litigation. Under common law, a party asserting a breach of contract claim is not entitled to recover its attorneys' fees, unless the contract at issue contains a separately enforceable indemnification provision providing for the award of attorneys' fees to the prevailing party. Such provisions may also govern the recovery of consequential damages.

Due to exclusions in design professionals' insurance policies (discussed below), design professionals should be (and generally are) wary of assuming risk through contractual provisions. Although liquidated damages clauses might be desirable from an owner's perspective, many design professionals will not agree to them. Instead, design professionals may seek provisions to limit liability to the amount of their compensation or to the amount of their insurance coverage, or provisions for the waiver of consequential damages. From the design professionals' perspective, it makes more sense for owners to assume risk; barring that, design professionals might assume risk through express contractual provisions and receive extra compensation for the assumption of that risk. Owners may also purchase an Owner's Protective



Professional Indemnity insurance policy, which provides protection to the owner for claims arising out of design professionals' acts, errors, or omissions.<sup>53</sup>

## Leasing

Leases for space within a green building must take into account the fact that the design, operation and maintenance of the building will differ from that of a traditional building in ways that impact the landlord-tenant relationship. Owners and tenants of green buildings should not expect that conventional lease documents will address all of their needs because lease documents govern the ongoing obligations of each party over what could be a long-term leasing relationship, sustainability goals may change over time and proper maintenance is essential to the continued sustainability of a building. Leases of green buildings may be problematic where one of the parties is more committed to creating a fully green lease than the other, particularly where one tenant in a multi-tenant building wants the landlord to implement sustainable practices that would also affect other tenants.

Tenants who lease space in green buildings should be aware of what features their building contains and whether the space they intend to lease will meet their own needs and sustainability goals. Owners who lease space to tenants in green buildings and who wish to provide for the continued sustainability of the building should be clear in leasing documents as to how tenants will be expected to provide for that sustainability. For example, if, for indoor air quality reasons, an owner wishes to restrict or ban the use of certain building materials and finishes that release volatile organic compounds (VOCs), the owner should specify as much in its lease agreements.

Perhaps the most significant decision with respect to leasing in the green building context is whether to adopt a gross lease or a net lease. In a gross lease, tenants are not responsible for their own utility costs. In a net lease, the tenant pays a base rent as well as a separate charge for operating costs, which includes utilities. From an owner's perspective, net leases are beneficial in that tenants handle risks associated with operating costs, but if tenants are responsible for utility expenses in a green building, a landlord will not enjoy the financial benefits of increased energy efficiency. A net lease incentivizes tenants to reduce their energy use. A gross lease allocates the risk of operating costs with the owner, which increases incentives for the owner (who is likely in a better position to do so) to improve building-wide energy efficiency.<sup>54</sup>

Other points which tenants and landlords should discuss before entering into a lease include whether there are additional insurance requirements due to certification or use of green components, how conflicts regarding noncompliance with the green lease terms will be resolved, and which parties shall bear the risk of dealing with green components that turn out to be defective or otherwise problematic. Lease documents should also make clear to tenants what their obligations will be with respect to maintenance and waste management (including

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<sup>53</sup> Rodney Taylor, Hedging Bets on the Green Gamble: Addressing Risks in the Design, Construction and Operation of Green Buildings 16 (Nov. 2, 2008) (unpublished report, on file with the authors).

<sup>54</sup> B. Alan Whitson, *Green Lease*, ENVIRONMENTAL DESIGN & CONSTRUCTION, July 2006, at 15-16 (available at [http://www.squarefootage.net/pdfs/articles/8\\_25\\_06\\_Green\\_Lease.pdf](http://www.squarefootage.net/pdfs/articles/8_25_06_Green_Lease.pdf)).

recycling) and building systems monitoring (which may be more comprehensive than in traditional buildings).<sup>55</sup>

## ***Insurance***

Insurance coverage and exclusions pose a significant problem for parties to green building projects. Design professionals and contractors will want to seek protection under their insurance policies for promises or guarantees regarding the certification or sustainability performance of a building,<sup>56</sup> but as previously indicated, warranties and guarantees are generally excluded from insurance coverage.<sup>57</sup> Where insurance coverage does not extend to all services delivered, parties must account for such exclusions through the contractual liability provisions discussed above. In the context of professional liability insurance, where appropriate, policies should define “Professional Services” as including services that the insured is qualified to perform as a certified green professional such as a LEED Accredited Professional. Parties should obtain green building-specific coverage where available and should be aware of what warranties and services their insurance covers.

In the current market, such policies are rare. Insurance carriers generally do not offer green building-related coverage. Moreover, because commissioning is only one aspect of a project, carriers do not generally reduce their policy quotes simply because commissioning is present. Insured parties should therefore pay extra attention to contractual provisions for the assumption of risk, as described above. As the green building market develops, insurers are continuing to introduce new products and it appears that appropriate insurance protection will become increasingly available on the commercial market.

## ***Information Disclosure***

The lack of clear standards for green building and the risk of heightened expectations regarding building performance increase the potential for fraud-related claims, particularly between the project owner and the tenant or buyer. More specifically, there is a risk that owners will be accused of misrepresenting the attributes or performance of green buildings where they fail to be specific regarding the “greenness” of the building or by promising a higher level of building performance than they ultimately deliver. On the other hand, buyers and tenants who are uninformed regarding green building standards or the attributes of the green building they

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<sup>55</sup> For a sample leasing document, see Real Estate Services Division – Professional Services Branch, State of California, Exhibit ‘B’ Outline Specifications, available at <http://www.ciwmb.ca.gov/GreenBuilding/TaskForce/Blueprint/ExhibitB.pdf> (last visited Dec. 5, 2008) (developed by the now-defunct California Sustainable Building Task Force as part of a sustainable building toolkit). *See also* California Sustainability Alliance, Green Request for Proposal, available at <http://www.sustainca.org/files/Green%20RFP.pdf> (last visited Dec. 5, 2008) (model language for tenants who wish to create a green RFP when seeking space for lease); California Sustainability Alliance, Green Lease Provisions, <http://www.sustainca.org/files/Green%20Lease%20Provisions.pdf> (last visited Dec. 5, 2008) (table of sample green lease provisions); California Sustainability Alliance, Leasing Toolkit, [http://www.sustainca.org/content/leasing\\_toolkit](http://www.sustainca.org/content/leasing_toolkit) (last visited Dec. 5, 2008) (providing general guidance for tenants).

<sup>56</sup> Taylor, *supra* note 53, at 15.

<sup>57</sup> *See* Huston, *supra* note 12.

intend to purchase may be “duped” into buying a building that is not truly “green” and/or does not meet their green requirements.

## **Owners**

Owners who sell or lease green buildings can protect themselves from potential misrepresentation claims in two ways, through:

- paying careful attention to wording in their marketing materials; and
- disclosing additional information regarding building occupancy and maintenance requirements for green buildings.

## **Marketing Materials**

Under the Federal Trade Commission Act, the FTC has published guidance documents, commonly referred to as the Green Guides, which set standards for environmental marketing and relevant terms such as “biodegradable.” While the Green Guides do not currently cover terms such as “green” in relation to green building, the principles of the Green Guides are useful for guidance in avoiding false advertising and marketing claims with respect to green building. These principles include:

- Relevant qualifications and disclosures should be clear, prominent, and understandable;
- A clear distinction should be made between the benefits of the product, package, service, or a component of the product, package, or service;
- Environmental attributes should not be overstated, expressly or by implication; and
- Comparative claims should be clear and advertisers should be able to substantiate such claims.<sup>58</sup>

Applying these principles to marketing for green building suggests that owners should specify what they mean when they use the word “green” by including language related to certification or specific components of the green building. However, where buildings are not yet constructed and certified it is important not to promise a certain level of certification or performance outcomes that the owner might not be able to deliver. Thus, qualifications and disclosures related to the uncertainty surrounding certification or performance should be included in any communications as well. Finally, the owner should be able to demonstrate the building’s level of certification, performance or other green attributes by maintaining supporting documentation and providing such documentation to interested buyers and tenants upon request.

The FTC is in the process of updating the Green Guides, and is considering whether to include guidance on green building. The last public workshop on the Green Guides was on July 15, 2008, and focused on comments relating to green building and textile claims and consumer perception of such claims. James Kohm, associate director of the FTC’s enforcement division, said at the workshop that the proposed revised guidelines will be issued in 2009, but did not give a specific date for their publication. Many workshop participants expressed concern with the use

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<sup>58</sup> 16 C.F.R. § 260.6 (2008).

of ill-defined terms such as “environmentally friendly” or “non-toxic” in green building product marketing materials. Participants felt that the existence of multiple certification systems, without uniformity in those systems’ metrics, resulted in a great deal of consumer confusion. However, participants wanted to leave the market open and permit the development of effective metrics and certification systems through competition. Participants suggested that the FTC Green Guides could be revised to describe and compare different rating systems in order to promote consistency of terminology and stress the reliance on credible standards in order to avoid problems of “greenwashing.”<sup>59</sup>

Owners and other parties are advised to stay abreast of developments and to comply with relevant standards for the marketing of green buildings in order to protect themselves from fraud claims related to misrepresentation.

### **Information on Occupancy and Maintenance of Green Buildings**

It is also important to clarify how building maintenance and occupancy may differ once tenants or buyers move into the green building. This objective can be accomplished through individual meetings, training and provision of materials on maintenance and occupancy requirements, such as recycling, cleaning supplies, and types of products and materials to be used for replacement. Providing such information is particularly important in relation to residential buildings, where buyers or tenants may not be as sophisticated or well-informed as commercial parties. For sample materials, see the State of California Green Building toolkit and the Green Resident Manuals developed by the Enterprise Green Communities Initiative.<sup>60</sup>

### **Tenants/Buyers**

Tenants and buyers should educate themselves regarding green standards and the maintenance and other occupancy obligations that may go along with a green building. Before deciding to move into or purchase a green building, they should be clear that:

- they know what they are getting by identifying and verifying the green features of the building and its level of certification with supporting documentation,
- green features meet their needs (e.g., improved indoor air quality), and
- they understand the occupancy and maintenance requirements of their green building and how to operate and maintain the building once they move in.

Given that LEED certification, the dominant certification program in the United States, is pursued in a number of different ways, a certain standard does not necessarily mean that the building will perform in a certain way or include the tenant or buyer’s expected features. Ideally,

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<sup>59</sup> See Environmental Leader, “FTC Examines Green Building, New Green Guides ‘Definitely’ in 2009,” July 16, 2008, <http://www.environmentalleader.com/2008/07/16/ftc-examines-green-building-new-green-guides-definitely-in-2009/> (last visited Feb. 17, 2009).

<sup>60</sup> See State of California Green Building Toolkit, available at <http://www.ciwmb.ca.gov/greenbuilding/ToolKit.htm> (last visited Dec. 5, 2008); Enterprise Green Communities Initiative, Green Resident Manuals, available at <http://www.greencommunitiesonline.org/tools/resources/index.asp#t1> (last visited Dec. 5, 2008).

tenants will be engaged in development from the beginning of the project and can clarify their requirements as discussed in the project management section above.

## **CONCLUSION**

As more corporations and individuals look for ways to lessen their impact on the natural environment while conserving economic capital and as more federal agencies and state and municipal governments require buildings to meet green standards, green building is becoming increasingly prevalent. Notably, the American Recovery and Reinvestment Act of 2009 is expected to have a strong impact on green building in the United States as the Act contains tens of billions of dollars in funding initiatives for green building. Despite this growing momentum for green building, if it is to thrive and expand in scale beyond a niche activity, parties interested in green building must become familiar with its risks. By educating themselves and taking steps to minimize their legal risks, owners, design professionals, and builders may successfully build green while reducing costs and avoiding liability.

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## **APPENDIX: SELECTED RESOURCES ON GREEN BUILDING**

### **TOOLKITS AND OTHER MATERIALS ON INTEGRATED DESIGN, CONTRACT DOCUMENTS AND SPECIFICATIONS:**

- The American Institute of Architects (AIA)  
[http://www.aia.org/docs\\_default](http://www.aia.org/docs_default)
- Harvard Office of Sustainability  
<http://www.greencampus.harvard.edu/theresource/>
- U.S. Green Building Council  
<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=76>
- State of California Green Building Toolkit  
<http://www.ciwmb.ca.gov/greenbuilding/ToolKit.htm>

### **INFORMATIONAL MATERIALS FOR TENANTS AND RESIDENTS INTERESTED IN A GREEN HOME:**

- Enterprise Green communities  
<http://www.greencommunitiesonline.org/tools/resources/index.asp#t1>
- City of Seattle  
<http://www.seattle.gov/dpd/greenbuilding/>
- City of Chicago  
[http://egov.cityofchicago.org/city/webportal/portalContentItemAction.do?contentOID=536911713&contentTypeName=COC\\_EDITORIAL&topChannelName=Dept&channelId=-536879037&programId=536879161&entityName=Environment&deptMainCategoryOID=-536887205](http://egov.cityofchicago.org/city/webportal/portalContentItemAction.do?contentOID=536911713&contentTypeName=COC_EDITORIAL&topChannelName=Dept&channelId=-536879037&programId=536879161&entityName=Environment&deptMainCategoryOID=-536887205)
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