# "How Green Is My Building?" -- Green Building and New Ways of Thinking About Goals and Constraints in Construction Law

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+I would like to express my Sincere Appreciation for the entire Florida A&M, College of Law faculty & staff. To Dean Darryll K. Jones, Professor Patricia Broussard, Professor Omar Saleem, & Professor Alexis Leventhal, Professor Robert Minarcin, Professor Norman Hull, Professor Randall Abate, Professor Carlos Woody, Professor Ka'Juel Washington, Professor Jennifer Smith, Professor Nicola Boothe-Perry, Professor Joseph Richard Hurt, a Special Thanks for their guidance, time, teachings, and for being Remarkable People. More than words can ever say to my heart, M.G.S, for her love and compassion for making a better person every day. I also would like to thank & appreciate Dr. Elmira Mangum, Distinguished Educator of the Year, President, Florida A&M University, for her continuous support of the College of Law & her strive for students to reach new accolades. Provost & Vice-President for Academic Affairs and Professor of Law, Marcella David I thank as her passion drives all around her to perform at a higher level and to make a difference. To Dr.'s Aida & Adil Elias, my First Great Teachers In Life, I thank you and appreciate more than words than ever say. I am truly grateful to the best brother anyone could be blessed to have, my brother, Pierre A. Elias. To the *Chicago-Kent Journal of Environmental and Energy Law*, for their non-stop attention to detail I appreciate and thank. I thank Professor LeRoy Pernell for his countless efforts and all he has done while Dean for the Florida A&M, College of Law and its students.

### Introduction

The accelerating trend towards green building has significant implications for construction law. Green building involves different standards for defining objectives of building construction and for evaluating when and whether those standards have been met. The introduction of these novel standards can create some new issues in construction disputes, especially with respect to contractors' compliance with specifications for design and construction.

The primary novelty of green building is the introduction of a different way of setting standards. Green building, in itself, is not a particular objectively defined end; it is a process of working towards environmentally responsible goals in which a variety of different parties, including owners, designers, builders, and service and product providers, are enlisted. For all parties involved in the green building process, care must be taken to ensure that everyone's respective role is defined with care and precision. If such care is not taken, and if "green building" is left as a vaguely defined goal, then it will be difficult or impossible to determine who is responsible for what and who failed or succeeded in fulfilling their responsibilities.

This paper examines the essential definition of green building and some of the standards that are being developed as a part of the green building process. It then considers several legal disputes associated with green building projects and considers the questions they raise and the suggestions they offer about how the green building process can be conducted with the greatest chance of success. Finally, it offers its own suggestion for a successful way to think about the problem of defining objectives and duties in the

green building process; a way of thinking that is present in other areas of law but that has special importance in green building.

## What is "Green Building" and How Does It Affect Construction Law?

The concept of a "green building" refers to a set of practices in building design and construction, which are developed with the goal of protecting the natural environment and minimizing the risk to human health from damage to the environment. The United States Environmental Protection Agency ("EPA") defines "green building" as "the practice of: (1) increasing the efficiency with which buildings and their sites use and harvest energy, water, and materials; and (2) protecting and restoring human health and the environment, throughout the building life-cycle: siting, design, construction, operation, maintenance, renovation, and deconstruction."

Given this definition, green building is something much more than what the contractors do to put a building together. In this connection, it is noteworthy that green building is defined as a set of "practices." The word "practice" connotes a commitment to an ongoing effort of doing something a certain way. The practices involved in this definition of green building require action by the building owner (in choosing the site and reviewing the architect's work), the architect (in developing the design), the users (in operation and maintenance), as well as the builder, who would be responsible for the construction and renovation itself.

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<sup>&</sup>lt;sup>1</sup> UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, GREEN BUILDING: FREQUENT QUESTIONS, http://www.epa.gov/greenbuilding/pubs/faqs.htm#1 (last visited May 26, 2015). The Office of the Federal Environmental Executive defines green building in an essentially identical way, referring to it as "the practice of 1) increasing the efficiency with which buildings and their sites use energy, water, and materials, and 2) reducing building impacts on human health and the environment, through better siting, design, construction, operation, maintenance, and removal — the complete building life cycle." See The Federal Commitment to Green Building: Experiences and Expectations, Office of the Federal Environmental Executive (2003),

http://ofee.gov/Resources/Guidance\_reports/Guidance\_reports\_archives/fgb\_report.pdf (last visited May 26, 2015).

Because green building requires collaboration and cooperation between every party involved with the life of a building, the responsibility for achieving the objectives of green building is shared among all of those parties. This shared responsibility makes for complicated legal problems. For example, making sure that a building achieves a particular standard of energy efficiency is an on-going process including choices about siting, design, building materials, building fixtures and equipment, building use, and maintenance. No one, not even the owner, is completely in control of this process at every point. If a building fails to achieve its efficiency goal, who will have the legal responsibility? In theory, it could be possible that the contracts governing the relationships among all of these parties could allocate this responsibility under any conceivable contingency. But in reality, no one drafts contracts with a perfect view of all future contingencies. Even with the most prescient contract drafting, there are bound to be situations in which it is difficult – or at least contentious – to assign responsibility for a failure to accomplish some aspect of the process of green building.

The fact that green building is an on-going process extending throughout the life of a building has another implication for construction law. The goals of green building cannot all be identified or measured in objective terms. Sometimes green building means having a commitment to the process as much as it means doing or not doing any particular thing. The elusive and sometimes subjective character of green building objectives further complicates the problem of determining what legal duties are associated with green building and of assessing whether and to what extent they have been met.

# Why Build Green?

# **Buildings and Environmental Impact**

Understanding the nature of the legal duties associated with green building requires a basic understanding of the reasons why people choose to "build green."

Ultimately, all of the specific duties involved in the green building process are oriented towards the overall purposes of green building. Defining those specific duties is impossible without an understanding of those overall purposes.

The movement towards green building is the product of an increased sensitivity to the various kinds of environmental harm coming from human activity and, more specifically, to the impact that buildings have on the environment. Buildings are not inert objects on the landscape. They account for 39 percent of total energy use; 12 percent of total water consumption; 68 percent of total electricity consumption; and 38 percent of carbon dioxide emissions. Moreover, as development extends, buildings have an increasing impact on the environment. According to surveys conducted in 2002, among the 1.983 billion acres of total land area in the U.S., 107.3 million acres is developed, which represents an increase of 24 percent in developed land over the period between 1992 and 2002. Buildings, and the transportation infrastructure that serves them, replace natural surfaces with impermeable materials, creating runoff that washes pollutants and sediments into surface waters. Urban runoff constitutes a major threat to water resources, as it has been identified as the fourth leading source of impairment in rivers, third in lakes, and second on estuaries."

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<sup>&</sup>lt;sup>2</sup> United States Environmental Protection Agency, Green Building: Why Build Green?, http://www.epa.gov/greenbuilding/pubs/whybuild.htm (last visited May 26, 2015).

<sup>&</sup>lt;sup>3</sup> Green Building: Frequent Questions, *supra* note 1.

<sup>&</sup>lt;sup>4</sup> *Id*.

Green building attempts to address many of these adverse consequences of development. Green building can help to conserve and restore natural resources, protect ecosystems, and enhance biodiversity.<sup>5</sup> It can diminish the flow of waste products into the air and water, and into landfills.<sup>6</sup>

Green building also offers substantial economic benefits. Because they use fewer resources, especially energy resources, green buildings have lower operating costs.<sup>7</sup> Green buildings can improve occupant productivity by creating a better and healthier working environment for their occupants.<sup>8</sup> Economic benefits are not limited to the owners and occupants. As green building becomes more prevalent, new market sectors emerge for green products and services, increasing employment and expanding economic diversity on a national basis.<sup>9</sup> By using all resources more efficiently, green buildings also reduce the strain on the local infrastructure around them, thus reducing the social cost of providing services such as waste removal and road maintenance.<sup>10</sup>

As if these inherent benefits to green building were not enough, recently developed government programs and policy initiatives have created substantial economic incentives for making the choice to build green. Most notably, President Obama's "recovery bill," the American Reinvestment & Recovery Act of 2009 ("ARRA"),

<sup>&</sup>lt;sup>5</sup> WHY BUILD GREEN, *supra* note 2.

<sup>&</sup>lt;sup>6</sup> *Id*.

<sup>&</sup>lt;sup>7</sup> *Id*.

<sup>&</sup>lt;sup>8</sup> *Id*.

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<sup>&</sup>lt;sup>10</sup> UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, GREEN BUILDING: WHY BUILD GREEN?, http://www.epa.gov/greenbuilding/pubs/whybuild.htm (last visited May 26, 2015).

included substantial spending to promote green building, including the provision of tax credits and incentives, financing for green construction projects, and much more.<sup>11</sup>

Indeed, promoting green building became a special point of emphasis for the Obama Administration. One of the principal methods chosen by the Obama Administration for promoting green building was the provision for tax credits and incentives. ARRA created a variety of tax incentives for retrofitting existing homes with energy efficient upgrades, especially for lower-income homeowners. ARRA also expanded funding for a bond program that provided financing for clean, renewable energy sources, some of which can be included in larger-scale green building projects. 13

The increased political commitment to green building was also reflected in an effort to promote the reform of local building codes as a means of encouraging more green building practices. Congress considered – but did not pass – the American Clean Energy and Security Act of 2009, <sup>14</sup> which, among other things, would have encouraged a kind of federalization of state and local building codes to incorporate more energy efficient and environmentally sustainable practices in building design and construction. <sup>15</sup> Even though this legislation was never enacted, it reflected the increasing support for including green building standards in building codes everywhere.

# **Standards for Green Building**

The practices that define green building have been identified in a set of formal standards and codes. The most widely used and influential of these is the "LEED

<sup>&</sup>lt;sup>11</sup> CENTER FOR CLIMATE AND ENERGY SOLUTIONS, SUMMARY OF THE AMERICAN RECOVERY AND REINVESTMENT ACT, http://www.c2es.org/federal/analysis/Summary-american-recovery-and-reinvestment-act (last visited May 26, 2015).

 $<sup>^{12}</sup>$  Id.

<sup>&</sup>lt;sup>13</sup> *Id*.

<sup>&</sup>lt;sup>14</sup> American Clean Energy & Security Act, H.R. 2454, 111th Cong.§§ 201-204 (2009) *available at* https://www.govtrack.us/congress/bills/111/hr2454/text (last visited on May 26, 2015). <sup>15</sup> *Id*.

Certification" developed by the United States Green Building Council ("USGBC"). Because these standards and codes are specified in the contracts for green building projects, they are crucial to understanding the legal significance of green building. To the extent that green building involves something new in construction law, the novelty is the product of the requirements specified by these standards and codes.

#### **LEED**

The USGBC was founded in 1993 by a group of architects who sought "to promote sustainability in the building and construction industry." One of their first objectives was to create a rating system to assess the extent to which any particular structure reflected the best practices in sustainable construction, resource use, and minimizing adverse impacts on the natural environment. <sup>17</sup> After several years of collaboration and development, the USGBC released its rating system in the year 2000. 18 Known as "Leadership in Environmental and Energy Design" ("LEED"), it has become the primary standard for green building in the United States.<sup>19</sup>

LEED measures the quality of design by evaluating a building in five categories related to siting, water conservation, energy, materials, and indoor environmental quality, plus an innovation and design category. <sup>20</sup> This process is based on the best practices used in the top 25 percent of new buildings.<sup>21</sup> Each category contains a specific number of

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<sup>&</sup>lt;sup>16</sup> UNITED STATES GREEN BUILDING COUNCIL, USGBC HISTORY, http://www.usgbc.org/about/history (last visited May 26, 2015).

<sup>&</sup>lt;sup>17</sup> *Id*. <sup>18</sup> *Id*.

<sup>&</sup>lt;sup>20</sup> White Paper on Sustainability: A Report on the Green Building Movement, BUILDING DESIGN AND CONSTRUCTION, 8 (2003) http://www.usgbc.org/Docs/Resources/BDCWhitePaperR2.pdf (last visited May 26, 2015). <sup>21</sup> *Id*.

credits and each credit can be worth one or more possible points.<sup>22</sup> Each category in a LEED rating system consists of prerequisites and credits.<sup>23</sup> Prerequisites are required elements or green building strategies that must be included in any LEED certified project.<sup>24</sup> Credits are optional elements or strategies that projects can elect to pursue to gain points toward LEED certification.<sup>25</sup> LEED certification has different rating systems for different kinds of construction projects.<sup>26</sup>

LEED rating systems generally have 100 base points plus six Innovation in Design points and four Regional Priority points, for a total of 110 points.<sup>27</sup> For homes, LEED is based on a 125-point scale, plus eleven Innovation in Design points.<sup>28</sup> Points are allocated to each credit depending upon the environmental impacts and human benefits of the building-related impacts that it addresses.<sup>29</sup> The total number of points awarded determines the level of certification: Certified (40-49 points); Silver (50-59 points); Gold (60-79 points); and Platinum (80 points or more).<sup>30</sup>

LEED has been successful because it provides a branded metric that establishes an objective basis for comparison in the real estate market.<sup>31</sup> Since LEED standards are based on what practices are used in the top quarter of all buildings, the owners of LEEDrated buildings know that their properties are environmentally superior to 75 percent of

<sup>&</sup>lt;sup>23</sup> UNITED STATES GREEN BUILDING COUNCIL, ABOUT LEED, http://www.usgbc.org/articles/about-leed (last visited May 26, 2016).

<sup>&</sup>lt;sup>24</sup> *Id*.

<sup>&</sup>lt;sup>25</sup> *Id*. <sup>26</sup> *Id*. <sup>27</sup> *Id*.

<sup>&</sup>lt;sup>28</sup> UNITED STATES GREEN BUILDING COUNCIL, ABOUT LEED, http://www.usgbc.org/articles/about-leed (last visited May 26, 2016).

<sup>&</sup>lt;sup>31</sup> WHITE PAPER ON SUSTAINABILITY, *supra* note 20, at 8.

the contemporary properties in the market.<sup>32</sup> The LEED brand has already become a marketing distinction for a number of certified projects, especially those with Silver or Gold ratings.<sup>33</sup>

LEED was intended to be a voluntary standard that private actors could impose upon themselves to achieve their own internally defined goals for environmental responsibility.<sup>34</sup> Even so, many of its early adopters were municipal governments and agencies that were eager to promote green building practices within their jurisdictions.<sup>35</sup> As a result, municipal codes increasingly came to require that new buildings achieved certain minimum scores on the LEED rating system.<sup>36</sup>

# International Green Construction Code

The International Code Council, in collaboration with ASTM International and the American Institute of Architects ("AIA") released the International Green Construction Code ("IGCC") in 2010.<sup>37</sup> Like other model codes, it provides a useful summary of the generally accepted "best practices" for green building. The purpose of the IGCC was "to safeguard the environment, public health, safety and general welfare through the establishment of requirements to reduce the negative impacts and increase the positive impacts of the built environment on the natural environment and building

<sup>&</sup>lt;sup>32</sup> *Id*.

 $<sup>^{33}</sup>$  Id

<sup>&</sup>lt;sup>34</sup> Sarah B. Schindler, *Following Industry's LEED: Municipal Adoption of Private Green Building Standards*, 62 FLA. L. REV. 285, 286 (2010).

<sup>&</sup>lt;sup>35</sup> *Id.* at 289 n. 9.

<sup>&</sup>lt;sup>36</sup> *Id.* at 289-90.

<sup>&</sup>lt;sup>37</sup> Press Release, International Code Council, New Green Construction Code Unveiled (March 15, 2010), available at <a href="http://www.iccsafe.org/gr/Documents/GreenToolkit/SamplePressRelease.pdf">http://www.iccsafe.org/gr/Documents/GreenToolkit/SamplePressRelease.pdf</a>.

occupants."38 It provides a useful summary of the generally accepted "best practices" for green building.

The IGCC includes a variety of provisions designed to "emphasize [] building performance, including features such as a requirement for building system performance verification and building owner education to ensure the best energy-efficient practices."<sup>39</sup> Thus, it creates minimum standards for elements of design and construction that promote sustainable use of the building and efficient energy use within it. 40 The code also includes a section devoted to "jurisdictional electives" that permits government agencies that adopt it to customize the code beyond its baseline provisions to address local priorities and conditions. 41 The code also includes enforcement provisions that impose criminal penalties for designers or builders who fail to comply.<sup>42</sup>

These standards for green building are making their way into local building codes. One notable example of this trend is Baltimore, Maryland. Baltimore's building code requires that all newly constructed or extensively modified non-residential buildings and certain specified multi-residential buildings with gross floor areas above 10,000 square feet must be LEED Silver certified or, in the alternative, they must comply with the Baltimore City Green Building Standard.<sup>43</sup>

<sup>&</sup>lt;sup>38</sup> International Green Construction Code, § 101-5 (2012), http://publicecodes.cyberregs.com/icod/igcc/2012/icod igcc 2012 1 sec002.htm (last visited May 26,

<sup>&</sup>lt;sup>39</sup> International Code Council, *supra* note 37.

<sup>40</sup> *Id.*41 *Id.* 

<sup>&</sup>lt;sup>42</sup> See International Green Construction Code. § D105.3 (2012). http://publicecodes.cyberregs.com/icod/igcc/2012/icod igcc 2012 appd sec005.htm (last visited May 26, 2015).

<sup>&</sup>lt;sup>43</sup> Stuart Kaplow, Baltimore City Is Adopting IGCC, GREEN BUILDING LAW UPDATE, (June 22, 2014), http://www.greenbuildinglawupdate.com/2014/06/articles/codes-and-regulations/baltimore-city-isadopting-the-igcc/ (last visited May 26, 2015).

### Energy Star

While LEED and the IGCC provide standards for the design and construction process, there is another standard which measures the energy saving performance of crucial components of any structure is Energy Star. The Energy Star rating system is the product of a program established by the United States Environmental Protection Agency ("EPA") in 1992 pursuant to authority created by the Clean Air Act.<sup>44</sup> In this respect, promoting energy efficiency was understood to be an aspect of the effort to reduce air pollution.

In 2005, Congress changed the statutory basis for this authority, making the promotion of energy efficiency an independently important objective and making such promotion a part of the mission for both the EPA and the Department of Energy. The Energy Policy Act of 2005 amended § 324 of the Energy Policy and Conservation Act, and "established within the Department of Energy and the Environmental Protection Agency a voluntary program to identify and promote energy-efficient products and buildings in order to reduce energy consumption, improve energy security, and reduce pollution through voluntary labeling of or other forms of communication about products and buildings that meet the highest energy efficiency conservation standards."<sup>45</sup>

In connection with the Energy Star program, the EPA and Department of Energy provide one of the most widely used energy benchmarking systems in the United States: the "Energy Star Portfolio Manager." This is a web-based tool maintained by the EPA,

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<sup>&</sup>lt;sup>44</sup> ENERGY STAR, ABOUT ENERGY STAR, http://www.energystar.gov/about/ (last visited May 26, 2015). Section103(g) of the Clean Air Act directs the Administrator to "conduct a basic engineering research and technology program to develop, evaluate, and demonstrate nonregulatory strategies and technologies for air pollution prevention." Clean Air Act, 42 U.S.C. § 7403 (2015).

<sup>45</sup> See 42 U.S.C.§ 6294.

<sup>&</sup>lt;sup>46</sup> ABOUT ENERGY STAR, *supra* note 44.

which enables users to compare a building's energy performance to its peer group based on analogous building characteristics, such as 12 months of total energy data, occupancy rates, property type, hours of operation, and square footage.<sup>47</sup> For many types of commercial buildings, a user can enter energy information into the program and it will calculate a score for a building on a scale of 1–100.<sup>48</sup> The score represents the percentile performance above other comparable buildings.<sup>49</sup> A score of 75 or greater may qualify for Energy Star certification. 50 The Energy Star Portfolio Manager allows a user to track and assess energy and water consumption throughout the lifetime of a building.<sup>51</sup>

The Energy Star Portfolio Manager is able to provide this kind of analytical information because it is based on a database called the Commercial Building Energy Consumption Survey ("CBECS"). The CBECS contains data about a wide variety of buildings so that the Portfolio Manager can provide peer-to-peer comparisons. 52 The current CBECS database includes comprehensive data compiled since 2003, and much of the data is derived from significantly older buildings.<sup>53</sup> Due to budget cuts, the database has not been updated with more recent data; so the Portfolio Manager may not reflect information about the most energy efficient practices.<sup>54</sup> Even so, it remains an important instrument for establishing an objective standard by which energy efficiency can be measured; one that is often used in determining whether a building meets its specified green objectives.

<sup>&</sup>lt;sup>47</sup> *Id*. <sup>48</sup> *Id*.

<sup>&</sup>lt;sup>51</sup> ENERGY STAR, ABOUT ENERGY STAR, http://www.energystar.gov/about/ (last visited May 26, 2015).

<sup>52</sup> *Id*. 53 *Id*. 54 *Id*.

# **Problems for Green Building**

Notwithstanding the extensive attention given to green building within the last decade and the widespread effort to define green building practices, there can be substantial ambiguity about whether a building meets the applicable green standards. To a great extent, this ambiguity is attributable to the fact that the "greenness" of a building often depends on factors that are not entirely objective and not completely within the control of any one party. Not surprisingly, this ambiguity has also led to litigation.

Because litigation about green building began relatively recently, there is a dearth of well-developed case law indicating a majority approach as to how to resolve issues about green building. Most of the significant litigation involving green building has ended in settlement, not a published appellate opinion. Indeed, it is not yet entirely possible to identify all of the issues that can give rise to litigation about green building.

Nevertheless, the information available about several significant cases and controversies provides some insight into the legal problems that can arise from green building. These cases and controversies show that the complexity of the process that constitutes green building can lead to disputes and litigation if green building objectives are not specified with care and precision, or if the responsibility for achieving those objectives is not expressly assigned to particular parties. If these precautions are not taken, any shortcomings in building performance or failures to achieve economic objectives can be blamed on anyone or everyone.

If a building fails to reach promised or expected benchmarks for saving resources or minimizing environmental impact, litigation can arise from claims of misrepresentation and/or breach of contract. It appears that green building presents a

particular risk of such litigation because it presents unique opportunities for promises and expectations to diverge from actual performance. This is because it can be difficult to define exactly what makes a building green and because many providers of environmentally responsible products and services often exaggerate just how green they are – a practice commonly known as "greenwashing."<sup>55</sup>

Misrepresentation and breach-of-contract claims were at the core of a case arising from the construction of the world's first LEED Platinum Certified building. The Chesapeake Bay Foundation ("the Foundation") commissioned a green building for its headquarters in Annapolis, Maryland. Fart of the design called for structural wooden beams that would be exposed to the elements. For these beams, the Foundation contracted with the Weyerhauser Company to purchase products called Parallams, which were beams comprised of glue-laminated wooden constituents. Weyerhauser promised to treat the Parallams with PolyClear 2000, a sealant designed to protect the beams from water penetration. In 2001, about a year after the Parallams were installed during construction, it became apparent that rainwater was entering the interior of the building around the outside of the Parallams. Curative measures were taken and the exterior leaks stopped. Several years later, the Foundation discovered that the Parallams were deteriorating because water had penetrated the laminate structure and caused rotting in the interior of the beams.

<sup>&</sup>lt;sup>55</sup> See Greenwashing Index, About Greenwashing, http://www.greenwashingindex.com/about-greenwashing/ (last visited May 26, 2016).

<sup>&</sup>lt;sup>56</sup> Chesapeake Bay Found., Inc., v. Weyerhaeuser Co., 848 F. Supp. 2d 570, 574 (D. Md. 2012).

<sup>&</sup>lt;sup>57</sup> *Id*.

<sup>&</sup>lt;sup>58</sup> *Id* 

<sup>&</sup>lt;sup>59</sup> *Id*.

<sup>&</sup>lt;sup>60</sup> *Id.* at 574-75.

<sup>&</sup>lt;sup>61</sup> Chesapeake Bay Found., Inc., v. Weyerhaeuser Co., 848 F. Supp. 2d 570, 575 (D. Md. 2012).

<sup>&</sup>lt;sup>62</sup> *Id.* at 576.

The Foundation sued, alleging that Weyerhauser had misrepresented the qualities of the beams, and, in particular, their suitability for achieving the design objectives that were a part of the green building plan.<sup>63</sup> The Foundation also alleged that the Parallams' performance constituted a breach of its contract with Weverhauser.<sup>64</sup>

The district court granted summary judgment to Weyerhauser, concluding that the Foundation's claims were asserted outside of the applicable limitations periods.<sup>65</sup> The court accepted Weverhauser's argument that the Foundation had actual and inquiry notice of all possible defects with the Parallams when the problems with exterior leaks occurred shortly after construction. <sup>66</sup> Given this notice, the district court held that the Foundation could have or should have discovered all of the problems with the Parallams when the first problems appeared.<sup>67</sup>

However, the Fourth Circuit ruled in an unpublished opinion that the district court erred. 68 It concluded that the district court erred in ruling that the Foundation had notice of all of the potential problems with the Parallams, especially the fact that the sealant – or at least its application to the Parallams – was defective and would not have prevented rot in the core of the Parallams.<sup>69</sup> Consequently, the Fourth Circuit vacated the summary judgment order and remanded the case.<sup>70</sup>

Both the claims and the Fourth Circuit's decision illustrate the importance of precision when making statements about performance made about any green building

<sup>&</sup>lt;sup>63</sup> *Id.* at 577.

<sup>&</sup>lt;sup>66</sup> Chesapeake Bay Found., Inc., v. Weyerhaeuser Co., 848 F. Supp. 2d 570, 580-81 (D. Md. 2012).

<sup>&</sup>lt;sup>68</sup> Chesapeake Bay Found., Inc., v. Weyerhaeuser Co., Case No. 12-1515 580 Fed. Appx. 203, 207-208 (4th Cir. Jul. 31, 2014).

<sup>69</sup> *Id*. 70 *Id*.

products and services, whether in advertising, contracts, or even allegations of defect and wrongdoing. The focus on the precise performance attributes of the Parallams that were at issue shows that both buyers and sellers must be careful about specifying what they expect products and services to accomplish at all phases of the green building project. This is particularly important given that some green building standards can be quite openended. For example, if a building owner wants to assure that his building is LEED certified, that owner is probably well advised to specify which criteria will lead to the award of points. It is not enough for the owner to demand that his building be "LEED Gold Certified." Rather, the owner must prescribe exactly how the building will reach that certification and assure that the contracts specifically assign the duties for achieving those objectives. If the contract simply provides that the contractor will deliver a LEED Gold Certified building, it may be hard to determine who actually has the responsibility for that result, particularly because not all of the aspects of the LEED certification process are within the contractor's control.

Similar care must be taken when it comes to the performance characteristics of green buildings, especially with respect to energy efficiency. Making a building energy efficient depends upon a variety of factors, including environment, property placement, and property use, among other things. These factors are not entirely within the control of any one party – and, with respect to a factor such as the environment, they can be outside anyone's control. If a building fails to achieve prescribed or expected performance standards, it may be difficult or impossible to determine who bears responsibility for the failure. For example, if an owner chooses building materials and HVAC systems with a goal of achieving a certain reduced level of energy use and, after construction is

complete, weather patterns change so that summers are hotter or winters are colder or both, and if building occupancy levels differ from expectations at the time of construction, energy use goals may not be met. Is there a legally cognizable breach of duty in that situation? If so, who breached the duty?

Ouestions like this arose in *Shaw Development v. Southern Builders*, 71 which has been called the country's first green building case. 72 It arose from the construction of a condominium project in Crisfield, Maryland. 73 The project included green-design features that were intended to support an application to USGBC for a LEED Silver rating.<sup>74</sup> Achieving a LEED rating was critical to the project because the project had been accepted into a state-level green-building program that provided a green-building tax credit. 75 When the job was finished, the developer refused to pay the contractor because the LEED certification was never obtained and the expected tax credit, worth \$635,000, was never earned.<sup>76</sup>

The central problem in the case was that the contract documents failed to mention anything about securing the tax credit.<sup>77</sup> Moreover, the contract between the developer and the contractor only noted that the building was designed to achieve LEED Silver Certification, but it did not give the contractor any specific responsibilities for assuring

<sup>&</sup>lt;sup>71</sup> Case No. 19-C-07-011405 (Md. Cir. Ct. 2007). The opinion in Shaw Development v. Southern Builders is not available through print or electronic media.

<sup>&</sup>lt;sup>72</sup> Chris Cheatham, Southern Builders v. Shaw Development: Green Building Litigation, GREEN BUILDING LAW UPDATE, (September 29, 2008), http://www.greenbuildinglawupdate.com/2008/09/articles/legaldevelopments/construction/southern-builders-v-shaw-development-green-building-litigation/ (last visited May 26, 2015).

<sup>&</sup>lt;sup>73</sup> *Id*. <sup>74</sup> *Id*.

<sup>&</sup>lt;sup>75</sup> *Id* 

<sup>&</sup>lt;sup>76</sup> Chris Cheatham, Southern Builders v. Shaw Development: The Most Important Part!, GREEN BUILDING LAW UPDATE, (October 1, 2008), http://www.greenbuildinglawupdate.com/2008/10/articles/legaldevelopments/southern-builders-v-shaw-development-the-most-important-part/ (last visited May 26, 2015). <sup>77</sup> Id.

that the certification was acquired.<sup>78</sup> In essence, the contract associated LEED certification entirely with the design, not with the construction process. Eventually, the case settled, and there was no need to resolve the legal questions that the case raised. That these questions arose in the first place confirms that when parties contract to achieve green building goals, they must be careful about how they allocate duties and responsibilities for achieving them.

A shopping center development project in Syracuse, New York shows that there can be legal problems when green building projects fail to achieve all of their green objectives. The developers promised to install various green building and renewable energy technologies in the project and, accordingly, sought tax-exempt "green bonds" as part of their financing. Once the project was underway, the developer informed the IRS that the adverse financial consequences of the economic downturn occurring after construction began prevented the developer from including all of the green building elements that were originally planned. The IRS ruled that the bond could keep their tax-exempt status after all, but the failure of the project to include all of its green building objectives could have led to extensive litigation if the IRS had ruled the other way. In that event, the developer might have sued the IRS, raising issues about the interpretation and application of the conditions for the tax exemption on the bonds; and the bond holders might have sued the developer for losing their expected tax benefits.

The open-ended quality of many green building goals can cause litigation when they are inserted into decision-making processes that are designed to turn entirely on

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<sup>80</sup> *Id*.

<sup>&</sup>lt;sup>79</sup> Rick Moriarty, *IRS Says Destiny USA Green Bonds Can Stay Tax Exempt*, SYRACUSE.COM (March 16, 2012), http://www.syracuse.com/news/index.ssf/2012/03/irs\_says\_destiny\_usa\_green\_bon.html (last visited May 26, 2015).

objective, quantifiable factors. For example, "purchasing Energy Star certified products" is an objective factor that can be easily incorporated in an objectively oriented decision-making process. Choosing a contract with "expertise in LEED certification" is something less than objective.

In two Pennsylvania cases, *Burchick Construction Company v. Pennsylvania*State System of Higher Education<sup>81</sup> and Hampton Technologies, Inc. v. Department of

General Services,<sup>82</sup> courts considered challenges to the legality of contract bidding

processes by public agencies that had been adapted to include a consideration of green

building ability. In both cases, disappointed bidders contended that the contract bidding

had not taken place according to the legally mandated procedure because the public

agencies had improperly taken account of subjective factors, such as a capacity to achieve

LEED certification.<sup>83</sup> Ultimately, the two cases were decided upon other issues, but they

both confirmed the importance of being specific about what green building goals are

being sought and about how they will be accomplished. With a little more specificity in

their statements of green building goals, each of the public agencies in these two cases

could have diminished their exposure to an allegation of arbitrary and capricious

decision-making.

#### Conclusion

It has often been said that new technologies and new ideas do not necessarily change the law, and that general legal principles remain constant regardless of what

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<sup>&</sup>lt;sup>81</sup> Burchick Constr. Co., Inc. v. Pennsylvania State Sys. of Higher Educ., No. 583 C.D. 2010 (Pa. Commw. Ct., Nov. 3, 2010) *available at* 

http://scholar.google.com/scholar\_case?case=8978934231639387427&q=burchick+pennsylvania+system&hl=en&as sdt=80000006).

<sup>82</sup> Hampton Tech., Inc. v. Dep't of Gen. Serv., 22 A.3d 238 (Pa. 2011).

<sup>&</sup>lt;sup>83</sup> Burchick, supra note 81; Hampton Tech., 22 A.3d at 239.

happens in the world outside of the law. One well-known formulation of this proposition was advance by the Honorable Frank Easterbrook of the United States Court of Appeals for the Seventh Circuit, who resisted the idea that advances in computer technology would lead to the creation of anything that could be called "cyberlaw." Judge Easterbrook pointed out that:

The best way to learn the law applicable to specialized endeavors is to study general rules. Lots of cases deal with sales of horses; others deal with people kicked by horses; still more deal with the licensing and racing of horses, or with the care veterinarians give to horses, or with prizes at horse shows. Any effort to collect these strands into a course on 'The Law of the Horse' is doomed to be shallow and to miss unifying principles.<sup>84</sup>

One could make a similar assertion about the "specialized endeavor" of green building. Green building is the product of technological developments and changing ideas about how and what to build. It is tempting to say that construction law does not change when applied to green building, any more than it changes when applied to "house building" or "high-rise building" or "warehouse building." However, this paper shows that there are new and different things about green building that require new ways of thinking about construction law, even if they do not require an entirely new or distinct branch of construction law.

Having reviewed the emergent case law from green building disputes and near-disputes, it seems clear that everyone participating in a green building project must be clear about the distinction between a goal and a constraint and about how that distinction applies to the practice of designing and constructing buildings with an eye towards environmentally responsible goals. A goal is best understood as a subjectively defined aspiration – an end towards which one chooses to strive. Goals can be open-ended and somewhat uncertain because they are not enforced. A constraint is an objectively defined

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 $<sup>^{84}</sup>$  Frank H. Easterbrook,  $\it Cyberspace~\&~the~Law~of~the~Horse,~1996~U.~Chi.~Legal~F.~207,~207~(1996).$ 

rule that is imposed by an external source. Constraints must be precisely defined because third parties will enforce them. For a building owner, "being environmentally responsible" or "winning LEED certification" is a goal. For any designer, builder, product seller, or service provider who is enlisted in the process of achieving that goal, these things are constraints. If contracts are going to be effective in assuring that the owner's goal is met and the providers' duties are performed, it must be remembered that contract rules ought to be drafted with precision as rules, not with vague aspiration, as goals.