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COPYRIGHTABILITY OF LEED-CERTIFIED BUILDINGS: APPROACHING THE AWCPA TO PROMOTE GREEN ARCHITECTURE

STEPHEN ACCURSIO MANISCALCO[†]

INTRODUCTION

In 2009, The Cooper Union for the Advancement of Science and Art opened the doors to 41 Cooper Square, its new academic building designed by Morphosis Architects.¹ In 2010, the building secured a Leadership in Energy and Environmental Design ("LEED") Platinum certification.² LEED is a credits-based rating system: The more "green" a building project is, the more LEED credits it will earn and the higher certification it will obtain.³

Buildings have deleterious environmental impacts, such as high energy consumption and high greenhouse gas emissions.⁴ The design of innovative buildings is critical to reducing waste generation, reducing energy and resource consumption, improving air quality, and slowing the rate of climate change. Therefore, the law should incentivize green architecture to the

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¹ The Cooper Union for the Advancement of Science and Art/Morphosis Architects, ARCHDAILY (Nov. 12, 2009), http://www.archdaily.com/40471/the-cooper-union-for-the-advancement-of-science-and-art-morphosis-architects [hereinafter ARCHDAILY].

² 41 Cooper Square Becomes First Academic Building in New York City To Be Certified LEED Platinum, AT COOPER UNION, Fall—Winter 2010, at 3, available at http://cooper.edu/sites/default/files/uploads/assets/site/files/ACU_FallWint10_2.pdf [hereinafter AT COOPER UNION].

³ *LEED*, U.S. GREEN BUILDING COUNCIL, http://www.usgbc.org/leed (last visited Mar. 23, 2015) [hereinafter U.S. GREEN BUILDING COUNCIL].

⁴ See infra Part I.A.

greatest extent possible; this should include both robust copyright protection and the LEED certification system, without the latter limiting the former.

Morphosis Architects arranged the rooms and spaces of 41 Cooper Square so that seventy-five percent of the building's regularly occupied rooms are lit by natural light.⁵ Also, the architects included a central full-height atrium, housing a huge staircase, designed to improve air circulation and to allow natural light to permeate the center of the structure.⁶ These design features serve two purposes. First, thev environmentally friendly because they lower the building's energy consumption and improve the building's indoor air quality. Second, the architects' arrangement choices and central atrium design are stylistically creative. For example, according to a renowned architecture critic, the atrium is an "intricate, soaring, free-form, white tube lattice, like a huge abstract sculpture, fill[ing] the space around the stair and defin[ing] the edges of the void, fencing in the open floors at each level."8

To encourage architects to be stylistically creative, the Architectural Works Copyright Protection Act of 1990 ("AWCPA") grants copyright protection in original architectural works. To encourage architects to be environmentally conscious, the LEED certification system awards LEED credits for sustainable design features. What should be the relationship between LEED and the AWCPA? Should the AWCPA be constrained by LEED?

No court has specifically addressed copyright protection in LEED-certified buildings. It is undisputed that copyright protection only extends to those elements of an architectural work that are original to the architect. Some courts, however, consider market demands, building codes, and functional demands as factors limiting architects opportunities for

⁵ ARCHDAILY, *supra* note 1.

⁶ *Id*.

⁷ Id.

 $^{^8}$ Ada Louise Huxtable, State of the Cooper Union, WALL St. J. (Dec. 2, 2009), http://online.wsj.com/news/articles/SB100014240527487034994045745617528129909 12.

⁹ 17 U.S.C. § 102(a)(8) (2012).

¹⁰ U.S. GREEN BUILDING COUNCIL, supra note 3.

¹¹ See, e.g., Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 348 (1991).

originality.¹² These courts reason that the factors reduce the number of available ways to express an architectural idea because the factors dictate, to a certain extent, the design options available to the architect.¹³ Because LEED-certified buildings are popular, inherently functional, and, sometimes, required by regulation,¹⁴ these courts may conclude that some elements of LEED-certified buildings are unoriginal and are not copyright protected.

Other courts analyze copyrightability of architectural works differently. To determine whether an architectural element is original under this second approach, the architect's intention is not considered. Outside constraints, like market demands and efficiency, are irrelevant to the originality inquiry. This second approach is more likely to provide copyright protection in elements of LEED-certified buildings.

Part I of this Note discusses green architecture, the history and structure of the LEED certification system, and the history and structure of the AWCPA. Part II discusses the approaches courts have taken in applying the AWCPA. Finally, Part III explores ways that LEED may affect courts' analyses. It explains why and how courts may deny copyright protection in many elements of LEED-certified architectural works. It then proposes a reading of the AWCPA that will provide appropriate copyright protection to green buildings that are original in design. This Note argues that courts should not consider green market demands, the LEED certification requirements, or green functional demands as factors in the copyright analysis.

 $^{^{12}}$ See, e.g., Harvester, Inc. v. Rule Joy Trammell + Rubio, LLC, 716 F. Supp. 2d 428, 440–41 (E.D. Va. 2010).

¹³ Courts consider these factors in applying the merger doctrine. *See infra* Part II.B. Under the merger doctrine, when there is a limited number of ways to express an idea, the expression merges with the idea and is, thus, unprotectable. Morrissey v. Procter & Gamble Co., 379 F.2d 675, 678 (1st Cir. 1967).

¹⁴ See infra Part I.A.2.

 $^{^{15}}$ See, e.g., Frank Betz Assocs., Inc. v. Signature Homes, Inc., No. 3:06-0911, 2010 WL 1373268, at *4 (M.D. Tenn. Mar. 29, 2010).

I. BACKGROUND

A. Green Architecture

Buildings and the building construction industry are major contributors to negative environmental impacts. 16 Buildings consume a massive amount, relative to other sources, of natural resources and energy.¹⁷ Buildings and related infrastructure cover approximately 107 million acres of developed land. 18 Buildings consume forty percent of all raw materials used in the United States. 19 Buildings account for ten percent of the nation's water consumption.²⁰ Buildings produce vast amounts of greenhouse gas emissions.²¹ Building construction demolition generates approximately 160 million tons of waste per vear.²² Also, because average Americans spend nearly ninety percent of their time indoors, poor air quality in buildings can lead to cancer-related illness and asthma.²³

Green buildings and sustainable architecture refer to buildings that are designed, constructed, operated, maintained, renovated, and disposed of in ways that minimize resource and energy use, protect occupant health and safety, minimize waste and pollution, and minimize other negative impacts on the environment.²⁴ Green architecture should be, and generally is,²⁵ encouraged. A way of encouraging green architecture is the LEED certification scheme.

1. History of LEED

The United States Green Building Council ("USGBC" or "Council") was founded in 1993 "[t]o transform the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy, and

¹⁶ Danielle Changala, Note, *Legal Impediments to Sustainable Architecture and Green Building Design*, 14 Vt. J. Envtl. L. 611, 613–14 (2013).

¹⁷ *Id*.

¹⁸ *Id*.

¹⁹ *Id*.

²⁰ Id. at 613.

²¹ *Id*.

²² Id. at 614.

²³ Id. 613–14.

²⁴ *Id.* at 612–13.

²⁵ See infra Part I.A.2.

prosperous environment that improves the quality of life."²⁶ The USGBC is made up of builders, environmentalists, corporations, nonprofits, teachers, students, lawmakers, and citizens.²⁷ The Council promulgates and regularly reevaluates standards for the LEED certification system,²⁸ which provides third-party verification of green buildings.²⁹ The USGBC, through the LEED certification system, strives to transform the way builders design, construct, maintain, operate, and dispose of buildings.³⁰ LEED is widely considered to be the leading green building standard and certification system in the United States.³¹

LEED is a credits-based rating system.³² The system quantifies how "green" a building is so that the building can be compared to other buildings.³³ For a new construction project, a building can be awarded a maximum of 110 LEED credits.³⁴ Credits are awarded in five core categories and two bonus categories.³⁵ The five core categories are sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality.³⁶ The two bonus categories are innovation in design and regional priority.³⁷ Each of the five core categories has prerequisites that must be met before any credits may be awarded.³⁸ A project must earn forty to forty-nine credits

²⁶ About USGBC, U.S. GREEN BUILDING COUNCIL, http://www.usgbc.org/about (last visited Mar. 23, 2015).

²⁷ I.J

²⁸ U.S. GREEN BUILDING COUNCIL, *supra* note 3.

²⁹ Id.

³⁰ *Id*.

³¹ Todd A. Weaver, *The Leed*® *Green Building Certification Program: Present Criticisms and Future Development*, 40 COLO. LAW. 83, 83 (2011).

³² U.S. GREEN BUILDING COUNCIL, *supra* note 3.

³³ Weaver, *supra* note 31.

³⁴ Id.

³⁵ Id. See generally LEED 2009 for New Construction and Major Renovations Rating System, U.S. GREEN BUILDING COUNCIL, http://www.usgbc.org/resources/leed-new-construction-redline-v2009-current-version (last updated July 2014), [hereinafter LEED 2009 for New Construction].

³⁶ Weaver, *supra* note 31, at 83–84.

 $^{^{\}rm 37}$ Id. at 84. Regional priority credits are awarded to building designs that address "geographically-specific environmental priorities." LEED 2009 for New Construction, supra note 35, at 87.

³⁸ LEED 2009 for New Construction, supra note 35, at vi–vii. To meet the prerequisites, the building must be designed to (1) reduce construction activity pollution, (2) reduce water use, (3) implement reduced energy systems, (4) avoid excessive energy use, (5) reduce stratospheric ozone depletion, (6) implement a recycling system, (7) meet minimum indoor air quality performance, and (8) minimize exposure of building occupants, indoor surfaces, and ventilation air

to become "LEED certified."³⁹ Buildings that earn fifty to fifty-nine credits are designated "LEED Silver," and those that earn sixty to seventy-nine credits are designated "LEED Gold."⁴⁰ Lastly, a building earning 80 to 110 credits is designated "LEED Platinum."⁴¹

2. Demand for LEED-Certified Buildings

The LEED certification system has become a driving force in the building design and construction industries.⁴² As Americans have become more environmentally conscious, LEED has gained support from both consumers and lawmakers.⁴³

Building owners and developers demand that architects design green because Americans want environmental- and health-friendly design.44 Building owners also recognize the other benefits associated with green buildings;45 these include positive public relations and financial savings in building construction, operation, and maintenance.⁴⁶ Owners of green buildings receive positive press and avoid conflicts with environmental groups.⁴⁷ In addition, building owners want to stay ahead of government-imposed environmental regulations. 48 LEED provides building owners and developers with a way to quantify how "green" they want their buildings to be.49 LEED also provides a way for building owners and developers to tell the world how "green" their buildings are—by displaying and advertising their LEED-Certified, Silver, Gold, or Platinum designations.⁵⁰ Therefore, more and more building owners and developers require that their architects build according to the

distribution systems to environmental to bacco smoke. Id. at 1, 23, 31, 33, 36, 49, 59, 60.

³⁹ Id. at xiii.

⁴⁰ *Id*.

⁴¹ Id. at vi-vii.

⁴² Frank David Ditta, Note, Leading the Way in Unconstitutional Delegations of Legislative Power: Statutory Incorporation of the LEED Rating System, 39 HOFSTRA L. REV. 369, 372 (2010).

⁴³ *Id*.

⁴⁴ Id. at 374.

⁴⁵ *Id*.

⁴⁶ Id. at 374–75.

⁴⁷ Id. at 374.

⁴⁸ *Id*.

⁴⁹ Id. at 377–78.

⁵⁰ *Id.* at 378.

LEED standards.⁵¹ The LEED certification system has made its way into state and local law.⁵² A Connecticut statute requires new construction of a facility that is projected to cost five million dollars or more, of which two million dollars or more is state funded, to comply with "or exceed the silver building rating of the [LEED]'s rating system for new commercial construction and major renovation projects, as established by the [USGBC]."⁵³ In New York, legislation provides certain tax incentives for green building owners.⁵⁴ The legislation, in part, uses the LEED standards to quantify the green-ness of the building.⁵⁵ At the local level, new construction or renovation projects costing New York City between two and twelve million dollars must, at a minimum, attain a LEED Silver rating.⁵⁶

3. LEED Certification Process

To apply for a LEED designation, builders must register their projects with the Green Building Certification Institute ("GBCI") and show that their project (1) complies with all of the prerequisites and (2) satisfies the requirements for a minimum number of LEED credits.⁵⁷ For example, because the architects of 41 Cooper Square arranged the spaces of the building so that seventy-five percent of the building's regularly-occupied spaces were exposed to natural light, the building earned an indoor environmental quality credit.⁵⁸ Moreover, because the architects of 41 Cooper Square incorporated a large, cylindrical atrium in

⁵¹ Id. at 377–78.

⁵² Id.

 $^{^{53}}$ Conn. Gen. Stat. Ann. § 16a-38k(a)–(b) (West 2013). The statute also requires other new construction and renovations of state facilities to attain a LEED silver certification. Id.

⁵⁴ See generally N.Y. TAX LAW § 19 (McKinney 2005).

⁵⁵ Id. § 19(e)(3)(A) ("The development of such standards [for materials, water conservation, and drainage] shall be informed by the LEED rating system.").

⁵⁶ New York City, N.Y., Rules, tit. 43, § 10-04 (2007). In Scottsdale, Arizona, all new city buildings must be "designed, contracted and built" to achieve the LEED Gold certification level. Scottsdale, Ariz., Res. No. 6644, § 2 (2005), available at http://www.scottsdaleaz.gov/Assets/Public+Website/greenbuilding/Resolution+6644.p df; Ditta, supra note 42, at 383.

⁵⁷ LEED 2009 for New Construction, supra note 35, at xiv.

⁵⁸ *Id.* at 80; see supra Introduction.

the center of the structure that improved airflow throughout the building, the building earned another indoor environmental quality credit for increased ventilation.⁵⁹

Of course, the LEED rating system standards do not tell architects how to arrange building spaces to maximize sunlight exposure or how to design an atrium to increase ventilation. Instead, the LEED standards merely provide that a design, to earn a LEED credit, must achieve a particular efficiency. Therefore, even when designing a building element to earn a LEED credit, architects must possess and utilize some degree of creativity and ingenuity. Consequently, their work possesses some degree of originality. Architects of green buildings, however, are keenly aware of the LEED standards when designing their buildings. An important question is, therefore, one of extent: How much do the LEED rating standards dictate the design of an architectural work?

B. Architecture and Intellectual Property

Intellectual property protection in architectural works will become increasingly important over the next decades. In the past decade, it seemed that every newly constructed building—especially in New York City—was a unique work of art. Building owners and developers do not want standard, rectangular prism buildings anymore. Instead, they want buildings that represent the work and ideals of the building's occupants and the surrounding community. Therefore, architects must devote more time to designing unique structures to satisfy their clients. Architects should have that work protected. Congress's goal in enacting the Architectural Works Copyright Protection Act ("AWCPA") was to promote the art of architecture. To successfully promote the art, however, while

 $^{^{59}}$ LEED 2009 for New Construction, supra note 35, at 63; see supra Introduction.

⁶⁰ See, e.g., AT COOPER UNION, supra note 2 ("[W]e challenged Pritzker Prizewinning architect, Thom Mayne, to design an innovative structure that would inspire and contribute to nurturing the exceptional, creative talent common among Cooper Union's faculty and students. We also placed a high priority on achieving the highest levels of energy efficiency, environmental quality and sustainability.").

⁶¹ H.R. REP. No. 101-735, at 12 (1990), reprinted in 1990 U.S.C.C.A.N. 6935, 6943.

recognizing the demand and need for green buildings, the AWCPA must successfully coexist with the LEED certification system.

C. Architectural Works Copyright Protection Act

The Copyright Act provides that "[c]opyright protection subsists... in original works of authorship fixed in any tangible medium of expression... from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."⁶² The AWCPA includes "architectural works" as a category of "works of authorship."⁶³ "[A]rchitectural work" is defined as "the design of a building as embodied in any tangible medium of expression, including a building, architectural plans, or drawings"⁶⁴ and includes "the overall form as well as the arrangement and composition of spaces and elements in the design, but does not include individual standard features."⁶⁵

1. History of the AWCPA

The grant of copyright protection in the "useful [a]rts" originates in the United States Constitution: Congress shall have the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." Prior to the enactment of the AWCPA, architectural works were protected by the 1976 Copyright Act. Architectural drawings and plans were protected under the "pictorial, graphic, and sculptural works" category. Protection of architectural works under the copyright laws was limited to architectural plans and blueprints and did not extend to the structure or the building

^{62 17} U.S.C. § 102(a) (2012).

⁶³ Id. § 102(a)(8).

⁶⁴ Id. § 101.

⁶⁵ Id.

⁶⁶ U.S. CONST. art. I, § 8, cl. 8.

⁶⁷ DeSilva Constr. Corp. v. Herrald, 213 F. Supp. 184, 193 (M.D. Fla. 1962) ("Although not mentioned expressly in a separate category in the statutes, architectural plans (including drawings and models) are clearly copyrightable under the present copyright laws under the specified class of drawings or plastic works of scientific or technical nature.").

^{68 17} U.S.C. § 102(5).

itself.⁶⁹ If architects desired protection in the structure or the building, they would have to resort to the Patent Act.⁷⁰ Although architectural works are technically patentable, the award of a patent for a building design is virtually foreclosed by the Patent Act's novelty requirement.⁷¹

In addition, for "[p]ictorial, graphic, and sculptural works" under the Copyright Act, the separability test is applied. ⁷² Under the separability test, protectable "works shall include works of artistic craftsmanship insofar as their form but not their mechanical or utilitarian aspects are concerned." An element of a work is protectable "only if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article." Therefore, under the 1976 Copyright Act, only the few aspects of architectural plans and blueprints that satisfied the separability test were given copyright protection.

Congress recognized that this approach was unsatisfactory for providing adequate protection to architectural works, and, accordingly, enacted the AWCPA in 1990.⁷⁵ Congress also recognized that there was considerable disagreement over how to apply the separability test, and it intended to "avoid entangling architectural works in this disagreement."⁷⁶ In enacting the AWCPA, Congress intended broader and more robust copyright protection of architectural works.⁷⁷

⁶⁹ DeSilva Constr. Corp., 213 F. Supp. at 196.

⁷⁰ Clark Proffitt, Comment, Poetry or Production: Functionality in the Architectural Works Copyright Protection Act, 39 ARIZ. St. L.J. 1263, 1267 (2007).

⁷¹ *Id.* Under the novelty requirement of the Patent Act, a person is not entitled to a patent if the "claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention." 35 U.S.C. § 102(a)(1) (2012).

^{72 17} U.S.C. § 101.

⁷³ *Id*.

⁷⁴ *Id*.

⁷⁵ H.R. REP. No. 101-735, at 20, reprinted in 1990 U.S.C.C.A.N. 6935, 6951. Architectural works are inherently utilitarian and functional, and it is difficult, as the separability test requires, to separately identify the nonfunctional aspects of an architectural work. See T-Peg, Inc. v. Vt. Timber Works, Inc., 459 F.3d 97, 109 (1st Cir. 2006) (stating that, prior to the AWCPA, "architectural structures themselves were afforded virtually no protection").

⁷⁶ H.R. REP. No. 101-735, at 20, reprinted in 1990 U.S.C.C.A.N. 6935, 6951.

⁷⁷ *Id.* at 6943 ("Architecture plays a central role in our daily lives, not only as a form of shelter or as an investment, but also as a work of art. It is an art form that performs a very public, social purpose.").

2. Legislative History of the AWCPA

The legislative history expounds a two-step analysis for applying the AWCPA. First, an architectural work "should be examined to determine whether there are original design present, including overall shape and interior elements architecture."78 Second, if such design elements are present, a court should ask whether such elements are "functionally required."79 If the design elements are not functionally required, the work is protectable without regard to physical or conceptual separability.80 If a design element is functionally required, but there is more than one method of obtaining the same functional result, the element may be copyrightable.81 The AWCPA allows the courts to decide what aspects of an architectural work are copyrightable based upon the facts, free of the separability conundrum.82

Congress included the term "original design elements" in the building's overall form and arrangement and composition of spaces. So Congress recognized that "creativity in architecture frequently takes the form of a selection, coordination, or arrangement of unprotectible elements into an original, protectible whole. Individual standard features, however, are not protectable. These include common windows, doors, and other staple building components. So

⁷⁸ Id. at 6951.

⁷⁹ Id. at 6952.

⁸⁰ *Id*.

 $^{^{81}}$ Id. ("Evidence that there is more than one method of obtaining a given functional result may be considered in evaluating registrability or the scope of protection.").

⁸² *Id*.

⁸³ Id. at 6949.

 $^{^{84}}$ Id.; see also Intervest Constr., Inc. v. Canterbury Estate Homes, Inc., 554 F.3d 914, 919 (11th Cir. 2008) ("[W]hile individual standard features and architectural elements classifiable as ideas or concepts are not themselves copyrightable, an architect's original combination or arrangement of such elements may be.").

^{85 17} U.S.C. § 101 (2012).

⁸⁶ H.R. REP. NO. 101-735, at 18, reprinted in 1990 U.S.C.C.A.N. 6935, 6949. The doctrine of scènes à faire also precludes copyright protection in standard design features. Under the doctrine of scènes à faire, elements "that must be done" may be freely copied. Lexmark Int'l, Inc. v. Static Control Components, Inc., 387 F.3d 522, 535 (6th Cir. 2004), aff'd on other grounds, 134 S. Ct. 1377 (2014) ("In the literary context, the doctrine means that certain phrases that are 'standard, stock, . . . or that necessarily follow from a common theme or setting' may not obtain copyright protection." (alteration in original)).

3. Rights Under the AWCPA

Under the AWCPA, an architect has the right to bring an infringement action if the architect can show ownership of a valid copyright and that the alleged infringer copied the original elements of that copyrighted material.⁸⁷ To prove copying, an architect, in the absence of direct evidence of copying, must prove that the defendant had access to the copyrighted work and that the alleged infringer's work is "substantially similar to the protected material." Copyright protection, however, may only be extended to those components of a work that are original to the author. Therefore, courts will find infringement only if there is substantial similarity with respect to the copyrightable, or original, elements of the two works compared. On

II. APPROACHES TO APPLYING THE AWCPA

Are LEED design elements unoriginal? Courts have not yet specifically answered the question. Nevertheless, their approaches to the AWCPA reveal how they will analyze the problem. Courts following the *Harvester* analysis may find that architectural elements designed to attain a LEED credit are unoriginal and, therefore, unprotectable. First, the *Harvester* court analyzed AWCPA infringement actions using the analysis for copyright protection in literary compilations, which it found would limit architectural works' scope of protection. 91 Second, it

 $^{^{87}}$ Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 361 (1991); Charles W. Ross Builder, Inc. v. Olsen Fine Home Bldg., LLC, 496 F. App'x 314, 317 (4th Cir. 2012).

 $^{^{88}}$ Charles W. Ross Builder, Inc., 496 F. App'x at 317–18 (internal quotation marks omitted).

⁸⁹ 17 U.S.C. § 102(a) ("Copyright protection subsists... in original works of authorship."); *Feist*, 499 U.S. at 348 ("Originality remains the *sine qua non* of copyright; accordingly, copyright protection may extend only to those components of a work that are original to the author."); *Intervest*, 554 F.3d at 919 n.2.

⁹⁰ Intervest, 554 F.3d at 920. Substantial similarity is frequently determined on a summary judgment motion because "a judge is better able to separate original expression from the non-original elements of a work where the copying of the latter is not protectable and the copying of the former is protectable." Id. ("[W]e have approved the use of summary judgment... where: (1) because access has been established, the crucial issue is substantial similarity; (2) there may be substantial similarity with respect to the non-copyrightable elements of the two works compared; and, (3) as to the protectable elements, there is substantial dissimilarity.").

 $^{^{91}}$ Harvester, Inc. v. Rule Joy Trammell + Rubio, LLC, 716 F. Supp. 2d 428, 438 (E.D. Va. 2010).

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applied the merger doctrine to AWCPA actions, posing that market demands, functionality, and building codes compromise architects' originality.92 On the other hand, courts following the Frank Betz approach will likely find that many LEED design elements are copyrightable. Under this approach, the architect's intent is not considered in the originality inquiry.

A. Compilations

When applying the AWCPA in an infringement action, the court must separate original architectural expression from the non-original elements of an architectural work to determine which elements are protectable.93 The fact finder will then compare the protectable elements to determine if there is infringement.⁹⁴ To separate original expression from nonoriginal elements, the United States Court of Appeals for the Eleventh architectural works—involving Circuit analogized arrangement and coordination of spaces and elements—to compilations.95

In Intervest Construction, Inc. v. Canterbury Estate Homes, 96 Inc., the plaintiff alleged that its floor plan for The Westminster was infringed by the defendant's floor plan for The Kensington.⁹⁷ Each floor plan depicted a four-bedroom house containing rooms common to most houses: A two-car garage, a living room, a dining room, a family room, a fover, a master bathroom, a kitchen, a second bathroom, a nook, and a porch or patio. 98 The floor plans also contained elements common to most houses: windows, walls, bathroom fixtures, kitchen fixtures, utility rooms, and closets.99 The square footage of both plans was approximately the same. 100

⁹² Id. at 440.

⁹³ Supra notes 89–90 and accompanying text; see Intervest, 554 F.3d at 920.

⁹⁴ See Intervest, 554 F.3d at 920; cf. Roth Greeting Cards v. United Card Co., 429 F.2d 1106, 1109 (9th Cir. 1970) (holding that the fact finder should compare the entirety of the two works, including unprotectable elements).

⁹⁵ Intervest, 554 F.3d at 919.

^{96 554} F.3d 914 (11th Cir. 2008).

⁹⁷ Id. at 916.

⁹⁸ *Id*.

⁹⁹ Id.

¹⁰⁰ *Id*.

The Eleventh Circuit recognized that, although these rooms and elements are not themselves copyrightable, an architect's original combination or arrangement of the rooms and elements may be copyrightable. The court stated that the individual standard features and architectural elements constitute "ideas" and, thus, are not copyrightable. The arrangement and composition of these "ideas," however, constitute the expression, which is copyrightable. This distinction reflects what is known as the dichotomy between idea and expression.

The court analogized architectural plans to literary compilations because architectural works and literary compilations share similar idea and expression dichotomies. ¹⁰⁵ In a compilation, "[t]he only conceivable expression is the manner in which the compiler has selected and arranged the facts. Thus, if the selection and arrangement are original, these elements of the work are eligible for copyright protection."

The *Intervest* court further noted that copyright protection in a compilation, and, as a consequence, architectural floor plans, is "thin." Hence, the court analyzed the floor-plan infringement claim through "the narrow lens of compilation analysis." Accordingly, the court found that the district court correctly concluded, on a summary judgment motion, that no infringement occurred. The court stated that, (1) after separating the original, protectable expression—the arrangement and coordination of rooms and elements—from the nonoriginal, unprotectable elements of the work, and (2) after recognizing that the protection in compilations is "thin," no reasonable jury could find that the works were substantially similar. 110

¹⁰¹ *Id.* at 919.

¹⁰² *Id*.

¹⁰³ *Id*.

¹⁰⁴ *Id*. at 920.

 $^{^{105}}$ Id. at 919. "A 'compilation' is a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship." 17 U.S.C. \S 101 (2012).

¹⁰⁶ Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349 (1991).

¹⁰⁷ Intervest, 554 F.3d at 919 (citing Key Publ'ns, Inc. v. Chinatown Today Publ'g Enters., Inc., 945 F.2d 509, 514 (2d Cir. 1991)) ("[T]he substantial similarity inquiry is 'narrowed' when dealing with a compilation.").

¹⁰⁸ Id.

¹⁰⁹ Id. at 921

¹¹⁰ *Id.* at 918, 920–21 ("[T]he wall placement in the southeast corner of the kitchens is significantly different. [The Kensington's] design pushes this wall further

B. Merger Doctrine

In addition to the already "thin" copyright protection in architectural floor plans, courts have used the merger doctrine to limit the amount of protectable, original expression in architectural works. ¹¹¹ Under the merger doctrine, where an idea can only be expressed in a very limited number of ways, it is said that the idea merged with the expression. ¹¹² As a result, the expression cannot be protected by copyright. ¹¹³ If such expression was copyrightable, "a party or parties, by copyrighting a mere handful of [expressions], could exhaust all possibilities of future use of the substance." ¹¹⁴ Accordingly, the party or parties would then hold a monopoly over the entire idea, which is impermissible under copyright law. ¹¹⁵

In *Harvester, Inc. v. Rule Joy Trammell* + *Rubio, LLC*, ¹¹⁶ the plaintiff alleged that the defendant infringed its copyright held in a set of architectural drawings for a hotel restoration project. ¹¹⁷ The defendant moved for summary judgment dismissing the plaintiff's copyright infringement claim. ¹¹⁸ Since the United States Court of Appeals for the Fourth Circuit had not analyzed the copyright interest held in architectural drawings as architectural works, the District Court for the Eastern District of Virginia adopted the Eleventh Circuit's analysis in *Intervest*. ¹¹⁹ The *Harvester* court noted that the originality requirement for copyright protection ¹²⁰ complicates matters for architectural

into the Living Room and pushes the Kitchen Counter much further north than in [The Westminster's] design. This allows [The Kensington's] design to have a much larger Pantry than [The Westminster's] design.") (alterations in original).

 $^{^{111}}$ E.g., Harvester, Inc. v. Rule Joy Trammell + Rubio, LLC, 716 F. Supp. 2d 428, 440 (E.D. Va. 2010).

 $^{^{^{112}}}$ Id.

¹¹³ Veeck v. S. Bldg. Code Cong. Int'l, Inc., 293 F.3d 791, 801 (5th Cir. 2002) ("If an idea is susceptible to only one form of expression, the merger doctrine applies and § 102(b) excludes the expression from the Copyright Act."). For example, since there are only a limited number of ways to express the simple substance of a set of rules for a promotional sweepstakes, copyright protection will not extend to the expression of those rules. Morrissey v. Procter & Gamble Co., 379 F.2d 675, 678 (1st Cir. 1967).

¹¹⁴ *Id.* at 678.

¹¹⁵ Id. at 679.

¹¹⁶ 716 F. Supp. 2d 428 (E.D. Va. 2010).

¹¹⁷ Id. at 430.

¹¹⁸ *Id.* at 433.

¹¹⁹ Id. at 436-37.

 $^{^{120}}$ 17 U.S.C. \S 102(a) (2012) ("Copyright protection subsists . . . in original works of authorship.").

drawings. 121 The court stated that the merger doctrine operates to limit a plaintiff's opportunities for originality in its architectural drawings. 122

The Harvester court found that the merger doctrine constrained the plaintiff's architectural drawings in significant ways. 123 The plaintiff in *Harvester* could not seek copyright protection for the expression of its ideas "where there were only a limited number of available ways in which [the plaintiff] could have expressed the ideas in its Architectural Drawings."124 The court listed factors that operate to limit the opportunity for originality and to reduce the number of available ways an architect can express ideas in architectural drawings. 125 These factors included, among others. (1) market demands. (2) building codes and manufacturers' clearance directives, and (3) functional demands. 126 In the merger doctrine analysis, courts are essentially inquiring into the extent that the factors dictate the design of the architectural work. If an architect includes a design element in an architectural work because of one or more of the factors, it is less likely the element is original, protectable expression.

1. Market Demands

The court in *Harvester* posed that market demands place constraints on architects' opportunities for originality and on the number of ways an architect can express architectural elements.¹²⁷ The court noted that market demands frequently dictate aspects of the architectural plans.¹²⁸ Market demands

 $^{^{121}}$ $Harvester,\ 716$ F. Supp. 2d at 438; see also Frank Betz Assocs., Inc. v. Signature Homes, Inc., No. 3:06-0911, 2010 WL 1373268, at *3 (M.D. Tenn. Mar. 29, 2010) ("[T]he case law is little help in guiding the Court as to what, if any, constitute original design elements of an architectural plan.").

¹²² Harvester, 716 F. Supp. 2d at 440. Although courts have not yet applied the doctrine of scènes à faire to architectural works, courts could also find that both the merger doctrine and the doctrine of scenes a faire limit architects' opportunities for originality in their architectural drawings. See supra note 86.

¹²³ *Harvester*, 716 F. Supp. 2d at 440.

¹²⁴ *Id*.

 $^{^{125}}$ Id.

 $^{^{126}}$ Id. Because this case regarded a hotel restoration project, the court also considered (1) the existing building's physical characteristics and (2) the goal of restoring the hotel to a previous older design as factors limiting originality and limiting the available ways to express the architectural elements. Id.

¹²⁷ Id. at 441.

¹²⁸ *Id*.

include the expectations and design tastes of building owners and developers. They also include norms and expectations of prospective users of the spaces. For example, in the case of a house, architects often "strive[] for a 'sweet spot where the majority of buyers are' in terms of house square footage and expectations concerning number of bedrooms and amenities." In the case of a hotel, architects may look to consumer expectations to choose and arrange amenities and to design the size and number of rooms in each space. These market demands, to the extent they dictate the design, limit the number of ways architectural plans can be drafted. Accordingly, the court in *Harvester* stated that "any design choice dictated solely by market demands cannot be protected expression, as it would not be original to [the plaintiff]."

2. Building Codes and Manufacturers' Directives

According to the Harvester court, if building codes or manufacturers' directives dictate an architect's regarding the arrangement and coordination of spaces, that arrangement and coordination of spaces cannot be protected expression because the building code limited the architect's originality in making decisions. ¹³⁵ For example, a local building code may require that the fire command center be located near the front door and street. 136 Accordingly, an architect's decision to arrange the front door space near the fire command center would not be protectable expression.¹³⁷ The same rule would apply to the directives provided by manufacturers of building equipment.¹³⁸ For example, if the manufacturer of a piece of equipment required certain clearances for servicing and maintenance, the arrangement of that equipment and the surrounding clearance space would not be protectable

¹²⁹ *Id*.

¹³⁰ *Id*.

¹³¹ Frank Betz, 2010 WL 1373268, at *4.

¹³² *Harvester*, 716 F. Supp. 2d at 441.

¹³³ Id.

¹³⁴ *Id*.

¹³⁵ *Id.* ("[A]ny decisions on arrangement and coordination made by [the plaintiff] that were dictated by the building code and manufacturers' clearance directives cannot be protected expression, as they would not be original to [the plaintiff].").

¹³⁶ *Id*.

¹³⁷ *Id*.

¹³⁸ *Id*.

expression.¹³⁹ The court reasoned that building codes and manufacturers' directives limit the originality of architectural plans and, accordingly, would not extend copyright protection to elements dictated by such codes or directives.¹⁴⁰

3. Functional Demands

Finally, according to the *Harvester* court, arrangement and coordination decisions in architectural plans that are dictated by functional considerations cannot be protectable expression. 141 According to Congress, "[e]vidence that there is more than one method of obtaining a given functional result may be considered in evaluating registrability or the scope of protection."142 Therefore, if there are many, or unlimited, ways of arranging and coordinating spaces to achieve the same functional result, the arrangement and coordination decisions may be protectable expression. 143 If there is a limited number of ways to achieve a certain functional result, however, the arrangement and coordination decisions are not protectable expression because the architectural idea merged with its expression. 144 The Harvester court noted that "arrangement and coordination decisions made out of functional necessity will typically not be protected by The court concluded that "arrangement and copyright."145 coordination decisions in [the plaintiff's] Architectural Drawings that were dictated by functional considerations cannot be protected expression."146

B. Applying the Harvester Factors

The *Harvester* court applied the factors to conclude that much of the plaintiff's expression was unprotectable. The court first stated that any copyright held in the plaintiff's drawings was necessarily thin because the drawings were analogized to

¹³⁹ *Id*.

¹⁴⁰ *Id*.

¹⁴¹ *Id*.

¹⁴² H.R. REP. No. 101-735, at 21, reprinted in 1990 U.S.C.C.A.N. 6935, 6952.

¹⁴³ Id

¹⁴⁴ *Harvester*, 716 F. Supp. 2d at 441.

¹⁴⁵ *Id*.

¹⁴⁶ *Id*.

¹⁴⁷ *Id.* at 444.

compilations.¹⁴⁸ Moreover, the court found that the plaintiff's copyright was "made even more thin" because much of the plaintiff's design expression, due to the factors that the court developed, merged with the architectural ideas.¹⁴⁹ However, the court held that the defendant could not establish that the plaintiff's architectural drawings were "wholly undeserving of any copyright protection whatsoever."¹⁵⁰ The court found that the drawings "possess a creative spark, though humble in places and limited in others."¹⁵¹ Accordingly, the court denied the defendant's motion for summary judgment.¹⁵²

Another court, the United States District Court for the District of Colorado, also applied the *Harvester* factors limiting an architect's opportunities for originality and reducing the number of ways an architect can express an architectural idea. ¹⁵³ In *Home Design Services, Inc. v. Starwood Construction, Inc.*, ¹⁵⁴ the plaintiff, a residential design firm, made several of its architectural plans available for sale in magazines, publications, and on the Internet. ¹⁵⁵ The plaintiff alleged that multiple homes, including the defendant's, infringed its copyrighted designs. ¹⁵⁶ The plaintiff moved for summary judgment as to infringement. ¹⁵⁷ The defendant argued, among other things, that the plaintiff's plans were unoriginal and, therefore, not protectable. The plaintiff identified seven original design elements that deserved copyright protection:

[These elements are] (1) easy conversion from a three bedroom to a four bedroom home; (2) the use of minimal hall space between the two bedrooms, causing a buyer to perceive the

 $^{^{148}}$ Intervest Constr., Inc. v. Canterbury Estate Homes, Inc., 554 F.3d 914, 919 (11th Cir. 2008); Harvester, 716 F. Supp. 2d at 444.

¹⁴⁹ Harvester, 716 F. Supp. 2d at 444.

¹⁵⁰ Id.

¹⁵¹ Id.

¹⁵² Id. at 447.

¹⁵³ Home Design Servs., Inc. v. Starwood Constr., Inc., 801 F. Supp. 2d 1111, 1118–19 (D. Colo. 2011) ("In addition, other courts have observed that architectural drawings are subject to other copyright doctrines that limit the extent of copyright protections. These include the 'merger' doctrine, which applies where an idea can only be expressed in a very limited number of ways. Similarly, where market demands, building codes, and functional demands dictate design elements, such components may not necessarily be protected by copyright." (citation omitted)).

¹⁵⁴ 801 F. Supp. 2d 1111.

¹⁵⁵ Id. at 1114.

¹⁵⁶ *Id.* at 1115.

¹⁵⁷ Id. at 1116.

home to be bigger than its actual square footage; (3) using a bay window form for the breakfast nook and denting the form into the master bedroom to increase the size of the nook; (4) placement of the windows; (5) placement of the bed wall in the master bedroom; (6) placement of the tub in the master bath suite; and (7) optional placement of a fourth bedroom and pool bath.¹⁵⁸

The defendant's expert witness submitted that these elements were unoriginal because they were dictated by market and functional demands. 159 For example, the architect arranged and coordinated the two bedrooms around the hall space (1) to minimize hall space and (2) to make the home seem bigger for a Therefore, the architect's decisions in potential buver. 160 arranging and coordinating the spaces were dictated by both the functional result of minimizing hall space and the expectations of a buyer.¹⁶¹ A defendant could argue that there was a limited number of ways to arrange the spaces to meet these demands. and, accordingly, the arrangement could not be protectable. 162 Moreover, a defendant could argue that a home buyer would expect the inclusion of a bed wall in the master bedroom, and, therefore, the plaintiff's placement of a bed wall in the master bedroom was unoriginal. 163

The court in *Starwood* agreed that copyright protection should be denied in architectural elements dictated by market and functional demands.¹⁶⁴ Accordingly, the court denied the plaintiff's motion for summary judgment as to infringement.¹⁶⁵ The court held that (1) because only "thin" copyright protection is extended to architectural floor plans and (2) because factual disputes exist as to whether the alleged infringed elements of the plans were original, the defendant did not, as a matter of law, infringe the plaintiff's plan.¹⁶⁶ The court suggested that the *Harvester* factors should be applied to determine whether the alleged infringed elements were original.¹⁶⁷

¹⁵⁸ Id. at 1119.

¹⁵⁹ *Id*.

¹⁶⁰ See id.

¹⁶¹ See id.

¹⁶² See id.

¹⁶³ See id.

¹⁶⁴ Id. at 1118-19.

¹⁶⁵ *Id.* at 1119.

¹⁶⁶ Id

¹⁶⁷ See id. at 1118–19.

C. A Different Approach

The court in *Frank Betz Associates*, *Inc. v. Signature Homes*, *Inc.* ¹⁶⁸ declined to apply all of the *Harvester* factors to limit an architect's opportunities for originality and to reduce the number of ways an architect can express an architectural idea. ¹⁶⁹ In *Frank Betz*, the court addressed the narrow question of whether the plaintiff's architectural plans contained protectable, nonfunctional elements. ¹⁷⁰ The court answered the question in the affirmative. ¹⁷¹

The plaintiff in *Frank Betz* recognized, and the court agreed, that some elements of the plaintiff's plans were dictated by "outside constraints," such as market demands. 172 However, the court found that these outside constraints fail to undermine protection for the plans as a whole. 173 Furthermore, the court declined to consider market demands as a factor limiting for originality.¹⁷⁴ analogized opportunities The court architectural works to pop songs. 175 The court reasoned that, for the same reasons a court should not deny copyright protection in a pop song because the composer wrote the song for mass appeal, courts should not deny copyright protection in an architectural work because the architectural plans were dictated by market demands. 176 The court, on the other hand, did recognize building codes as a factor limiting opportunities for originality. 177

Moreover, the *Frank Betz* court analyzed functionality differently than did the *Harvester* court. The court recognized that the AWCPA "specifically contemplated protection for buildings that perform a function—for example, habitable or useful structures such as houses, office buildings, and

¹⁶⁸ No. 3:06-0911, 2010 WL 1373268 (M.D. Tenn. Mar. 29, 2010).

¹⁶⁹ See id. at *4.

¹⁷⁰ Id. at *1.

¹⁷¹ *Id*.

¹⁷² Id. at *4.

 $^{^{173}}$ Id.

¹⁷⁴ *Id*.

¹⁷⁵ *Id*.

 $^{^{176}}$ Id. ("[T]he fact that the creator of a house plan factored marketability into the design renders the plan no less worthy of protection than a pop song designed for mass appeal.").

 $^{^{177}}$ Id. ("Building codes constrain the ultimate design of a house, and while zoning or historic preservation ordinances may affect the exterior design, they do not dictate the interior arrangement of rooms.").

churches."¹⁷⁸ Moreover, the court stated that, generally, the overall design and arrangement of spaces and rooms are not functionally required.¹⁷⁹ For a house, the only things functionally required are "four walls, a roof, and an entrance/exit."¹⁸⁰ The "designer's choices as to the internal arrangement of a house plan are not functionally required."¹⁸¹

As a result, unlike the *Harvester* court, the *Frank Betz* court, to determine whether an architectural element was original, did not analyze whether the architect's decisions were intended to achieve some functional result. Instead, the *Frank Betz* court asked whether the architectural element was functionally required for the building as a whole. In essence, the *Frank Betz* analysis asks whether the element is required for the building to structurally remain standing. If the element is not, then it is not "functionally required" and may be protectable expression. Therefore, the arrangement and coordination of spaces is never functionally required.

In sum, compared to the *Harvester* analysis, the *Frank Betz* analysis grants copyright protection in a broader range of architectural elements because the *Frank Betz* analysis (1) does not consider market demands as a factor limiting opportunities for originality and (2) considers the overall design and arrangement of spaces and rooms as not functionally required. ¹⁸⁵

III. HOW LEED CERTIFICATION WILL AFFECT THE ANALYSIS

When the LEED certification rating system is factored into the AWCPA originality analysis for copyright protection, courts could deny protection in many elements of LEED-certified

¹⁷⁸ *Id*.

¹⁷⁹ *Id*.

¹⁸⁰ *Id*.

¹⁸¹ *Id.* ("Just as someone using a kaleidoscope mixes standard colors into a new pattern, there are certain common features that go into a house design—a kitchen, bathroom, bedrooms—and the designer moves each of those elements into an original, potentially protectible [sic] arrangement.").

¹⁸² See id. at *4-5.

¹⁸³ See id.

¹⁸⁴ See id.

¹⁸⁵ See id. at *5 ("The sheer number of Betz designs as [sic] issue and the number of designs cited by the experts in their testimony point to the various ways that even the features shared by these designs—such as number of bedrooms—may be arranged in original ways. These designs display the minimum amount of originality necessary for protection under the Copyright Act.").

buildings. First, the LEED certification rating system arguably reduces the number of available, original ways to express an architectural idea. Second, elements of LEED-certified buildings serve functional goals as well as aesthetic and creative goals. For these reasons, the copyright analysis is complicated, and uncertainty exists as to the protectability of elements of LEED-certified buildings. 188

A. How and Why Courts May Deny Copyright Protection in Elements of LEED-Certified Architectural Works

The LEED certification rating system arguably reduces the number of available, original ways to express an architectural idea. Therefore, when courts apply the merger doctrine to determine the protectable elements of an architectural work, courts may find that the architectural idea and its expression merged. Courts may apply the *Harvester* analysis and consider factors, such as market demands, building codes, and functional demands, as operating to limit the opportunity for originality and to reduce the available ways in which to express ideas in architectural works. Courts may find (1) that the LEED certification rating system is doctrinally located within and builds upon these factors or (2) that the LEED certification rating system is, on its own, an additional factor.

1. Market Demands

LEED certification is a market demand. Because building owners and the public, in general, greatly desire buildings with a LEED certification, Security may find that the market demand for LEED certification limits an architect's originality. Courts

 $^{^{186}}$ See Changala, supra note 16, at 632 ("[G]reen buildings are unlikely to qualify for any effective copyright protection.").

¹⁸⁷ See Theresa V. Casey, Copyright Protection for "Green Design" of Architectural Works: Beyond Functionality, 1 LANDSLIDE 48, 51 (2009) ("[Green] buildings are generally both highly functional and remarkably 'poetic.'").

¹⁸⁸ See id. at 49 ("In the case of green designs, where the designs are focused on efficiency, there is arguably more functionality in each design element."); Changala, supra note 16, at 632 ("[G]iven that the inherent objective of sustainable architecture is function, sustainable architecture's protection under contemporary copyright law is equivocal.").

¹⁸⁹ See supra text accompanying notes 44–51.

¹⁹⁰ *Id*.

may reason that, because architects are pressured to design according to LEED standards, ¹⁹¹ architects that design with those standards in mind do not deserve protection in their works.

For example, the owners of 41 Cooper Square placed a great emphasis on having a building that was at the forefront of sustainability. Therefore, to attain a LEED credit, the architects of 41 Cooper Square arranged and coordinated the spaces of 41 Cooper Square so that seventy-five percent of the building's regularly occupied spaces are lit by natural daylight. Courts may hold that 41 Cooper Square's arrangement and coordination of spaces are unoriginal because the arrangement and coordination decisions were dictated by the market demand for LEED certification.

2. Building Codes

Moreover, courts may find that the LEED certification rating system falls under the "building codes factor." As more and more states and local governments adopt laws requiring LEED certification or incentivizing LEED certification, ¹⁹⁴ the LEED certification rating system becomes more and more like a building code. Therefore, courts may view a government mandate or incentive for LEED certification as limiting the originality of elements in an architectural work.

On the other hand, building codes are arguably very different than the LEED standards. While building codes usually specifically dictate the design, such as a building code dictating the location of a fire command center, ¹⁹⁵ LEED standards generally do not tell architects how to design in order to achieve a particular efficiency. ¹⁹⁶ Instead, LEED standards merely provide that a design must achieve a particular efficiency. ¹⁹⁷ Whether courts will appreciate this difference is uncertain.

¹⁹¹ Id.

 $^{^{192}}$ AT COOPER UNION, supra note 2 ("We also placed a high priority on achieving the highest levels of energy efficiency, environmental quality and sustainability.").

¹⁹³ See supra note 58 and accompanying text.

¹⁹⁴ See supra notes 52–56 and accompanying text.

¹⁹⁵ See supra text accompanying note 136.

¹⁹⁶ See supra Part I.A.3.

¹⁹⁷ *Id*.

3. Functional Demands

Courts are also likely to consider LEED certification as a functional demand that limits the opportunity for originality and reduces the available ways in which to express ideas in LEED-certified buildings. Under the merger doctrine, if there is a limited number of ways of arranging and coordinating spaces to achieve a certain functional result, the arrangement and coordination decisions are not protectable expression. With respect to green buildings, the "functional result" is the level of efficiency specified by the LEED standards. Therefore, if there is only a limited number of ways to achieve a particular efficiency or to obtain a certain LEED credit, the functional solution and the means of expressing that solution are merged.

For example, the architects of 41 Cooper Square, to obtain a LEED credit, arranged and coordinated the spaces so that seventy-five percent of the building's regularly occupied spaces are lit by natural daylight.²⁰¹ Since there is only a limited number of ways of arranging and coordinating the building's spaces to achieve such an efficiency, courts may find that the arrangement and coordination is unprotectable. In other words, the functional demand to achieve such an efficiency precludes copyright protection in the arrangement and coordination of the building's spaces.

4. The LEED Factor

Lastly, courts may add the LEED certification rating system to the list of factors that limit opportunities for originality and reduce available ways in which to express ideas in architectural works. Courts may find that there is a limited number of ways for a building to obtain a certain LEED certification, or in other words, that there is a limited number of ways for architects to "express" a LEED-certified building. For example, the architects of 41 Cooper Square, before starting design work, set out to achieve a LEED Platinum certification. Since there is a limited number of ways to achieve a LEED Platinum certification—for

¹⁹⁸ See supra Part II.B.3.

¹⁹⁹ Casey, *supra* note 187, at 50; *see also* Changala, *supra* note 16, at 632 ("[T]he inherent objective of sustainable architecture is function.").

²⁰⁰ Casey, *supra* note 187, at 50.

²⁰¹ See supra text accompanying note 5.

example, a limited number of ways of selecting and incorporating LEED credits—elements of the building designed to obtain a LEED credit may be denied protection.

Furthermore, since architects receive a benefit by obtaining LEED credits, courts may view this benefit as sufficient to compensate for denying architects copyright protection. Courts may view LEED certification as sufficient to encourage architects to design green buildings. Courts may reason that the LEED-certified designation, instead of copyright protection, will provide the incentive to design green buildings. Therefore, the benefit realized from LEED certification may be used to rationalize the possibly unfair denial of copyright protection in elements of LEED-certified buildings.

B. Why Protectability of Elements of LEED-Certified Buildings Should Be Supported

Nevertheless, copyright protection of elements of LEED-certified buildings should be supported. Architects possess and utilize some degree of creativity and ingenuity, even when designing a building element to earn a LEED credit. Their work, therefore, possesses some degree of originality. The AWCPA should recognize this originality by granting copyright protection in elements of LEED-certified buildings.

Danielle Changala, in her note, Legal Impediments to Sustainable Architecture and Green Building Design, argues that "[t]he uncertainty of copyright protection for sustainable architecture and green building design creates a significant deterrent in encouraging the development of green buildings."202 The LEED-certified designation is not a sufficient incentive to "promote the Progress of Science and useful Arts"203 because "[r]emoving the pecuniary incentive of copyright protection reduces the likelihood an architect would pursue such innovative avenues of architectural design."204 Because of buildings'

²⁰² Changala, *supra* note 16, at 632.

²⁰³ U.S. CONST. art. I, § 8, cl. 8.

²⁰⁴ Changala, *supra* note 16, at 632.

"deleterious environmental impacts," 205 the government should encourage and incentivize green architecture to the greatest extent possible. 206

C. An Approach to the AWCPA That Grants Protection in Elements of LEED-Certified Buildings

The Frank Betz approach to the AWCPA will satisfactorily grant copyright protection in elements of LEED-certified buildings. The Frank Betz court suggests that only the structural requirements of a building are "functionally required" and, therefore, never protectable.²⁰⁷ All other elements of an architectural work, on the other hand, may be protectable.²⁰⁸ Elements of LEED-certified buildings "function" to achieve the level of efficiency specified by the LEED standards.²⁰⁹ They do not typically function, however, to structurally support the building. Therefore, although elements of LEED-certified buildings serve "functions," they still may be protectable under the Frank Betz approach.

In addition, under the *Frank Betz* approach, the arrangement and coordination of spaces is never "functionally required." The court suggested that architectural floor-plans may always be protectable expression. Therefore, the arrangement and coordination of the rooms and spaces of 41 Cooper Square, for example, would be protectable expression under the *Frank Betz* approach. Although the architects arranged the building's spaces (1) to ensure that seventy-five percent of the regularly occupied spaces are exposed to natural light, (2) to reduce the building's energy consumption, and (3) to earn a LEED credit, a court may still grant copyright protection in the architects' arrangement.

Moreover, this approach makes sense in light of the AWCPA's legislative history and intent. The AWCPA was enacted partially to dispense with the separability test for

 $^{^{205}}$ Id.; see also supra text accompanying notes 16–23.

²⁰⁶ See Changala, supra note 16, at 632 ("American copyright law needs to evolve to provide the necessary incentives and protections to encourage the development of a socially and environmentally sustainable building infrastructure.").

²⁰⁷ See supra notes 182–84 and accompanying text.

²⁰⁸ Id.

²⁰⁹ See supra Part III.A.3.

²¹⁰ See supra text accompanying note 184.

architectural works. 211 Therefore, Congress intended to grant protection in, at least, some "functional" aspects of an architectural work. 212

The Frank Betz court also declined to consider popularity and market demands as factors limiting architects' opportunities for originality; the Frank Betz court did not consider these factors in the merger doctrine analysis. Therefore, the fact that LEED-certified buildings are popular is irrelevant under the Frank Betz approach. For example, although a LEED Platinum building was demanded of the architects of 41 Cooper Square, they can rest easy knowing that their opportunities for originality will not be limited. Their expression, though reflecting market demands, may still be protectable.

The Frank Betz court did, however, consider building codes as a factor limiting architects' opportunities for originality. Nevertheless, this will likely not narrow copyright protection in LEED-certified buildings. Building codes and the LEED standards are very different. The LEED standards typically provide that a design must achieve a particular efficiency, without specifying how to do it. Building codes, on the other hand, usually provide architects with more specific instructions. Courts should consider this difference in their analyses. Accordingly, even under the Frank Betz approach, a building element that satisfies the LEED standards may still be original.

CONCLUSION

Some courts are denying copyright protection in architectural works under the reasoning that original expression—"the *sine qua non* of copyright"²¹⁶—is compromised because the work is dictated, to a certain extent, by market demands, functional demands, and regulatory mandates. Therefore, in the event of infringement litigation regarding LEED-certified buildings, robust copyright protection is not ensured. This is because LEED-certified buildings are popular,

²¹¹ See supra Part I.C.1.

²¹² See supra note 81 and accompanying text.

²¹³ See supra text accompanying notes 172–76.

²¹⁴ See supra text accompanying note 177.

²¹⁵ See supra Part I.A.3.

²¹⁶ Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 348 (1991).

inherently functional, and, sometimes, required by regulation. We need robust protection, however, to promote, to the maximum extent possible, green initiatives by architects.

The *Frank Betz* approach seems to adequately provide copyright protection in elements of LEED-certified buildings. The approach seems to satisfactorily recognize the originality in architects' works. The approach will incentivize architects to continue to design building elements according to the LEED standards, and green architecture will hopefully continue to develop. The approach, therefore, will help curtail the negative and deleterious impacts of buildings and the building construction industry on the environment.