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Greening Historic DC: Challenges and Opportunities to Incorporate Historic Preservation into the District's Drive for Sustainable Development

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I. INTRODUCTION

On April 21, 2009, in celebration of Earth Day, Mayor Adrian Fenty unveiled version 1.0 of his "Green DC Agenda." The Green DC Agenda is the Mayor's blueprint for making the District of Columbia one of the world's most sustainable cities.[1] According to Fenty, this Agenda "will drive the District toward being as green as humanly possible."[2] The Agenda covers seven areas – Homes, Schools, Neighborhoods and Communities, Parks and Natural Areas, Transit, Jobs and Economic Development, City and Government Operations – and includes plans to clean up the Anacostia River, as well as to address climate change.[3] This is an ambitious plan for the District. Still, with the city planning for its future, the question lingers: What role does the city's past play?

This paper focuses primarily on the District of Columbia, a city with a robust past and a bold agenda for a sustainable future. However, it may not be obvious why historic preservation – a movement typically concerned with aesthetics – can play an integral role in a city's sustainability initiative. Therefore, this paper first sets forth the basic argument why historic preservation can be a tool to promote sustainable development.[4] Part II examines the scientific data indicating that historic preservation is a green building practice. Next, Part III posits that investment in historic districts is an investment in sustainability. Then, Part IV gives an

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[1] Adrian M. Fenty, Mayor, Washington, DC, An Open Letter to District Residents (April 22, 2009), http://green.dc.gov/green/cwp/view,a,1248,q,462423.asp [hereinafter *Mayor's Letter*].
[2] Press release, District Department of the Environment, Mayor Fenty Unveils Green DC Agenda (April 21, 2009), *available at* http://newsroom.dc.gov/show.aspx/agency/ddoe/section/2/release/16787.
[3] *Mayor's Letter*, *supra* note 1.
[4] A note on terminology: "Sustainable Development" is most commonly defined as, "meeting the needs of the present without compromising the ability of future generations to meet their own needs." World Comm'n on Env't and Dev., *Our Common Future* (1987). Employing environmentally-sound building techniques – or "green building" – is certainly one way to promote sustainable development. However, the definition of sustainable development clearly stands for something more than just green building. Nevertheless, the terms "sustainable development" and "green building" are often conflated and it is difficult to avoid doing so. As much as possible, this paper attempts to use the term "green building" to refer specifically to environmentally-sound construction and rehabilitation practices, whereas variations on the term "sustainable" refer to any number of practices that help to fulfill the broad definition of "sustainable development" laid-out above.

overview of the recent efforts by the National Trust for Historic Preservation to bolster this argument, including the National Trust's collaboration with the U.S. Green Building Council, which has yielded significant changes to the LEED rating system.

The remainder of this paper focuses on the efforts of the District. This paper identifies challenges and opportunities for the city's historic preservation program as the city commits to a sustainable future.

Part V discusses potential areas of tension between historic preservation and the city's sustainability initiatives. First, Part V focuses on two pieces of legislation the District recently passed – the Green Building Act of 2006 and the Clean and Affordable Energy Act of 2008. After laying out the relevant statutory provisions, this section identifies potential sources of contention that may arise between these laws and the District's Historic Landmark and Historic District Protection Act of 1978. Part V concludes that perceived conflicts under the Green Building Act are overblown. However, there is potential tension between the Energy Act and the Historic Preservation Act, as shown through emerging initiatives by property owners in two historic districts to install large solar arrays, using a rebate program funded by the District.

Part V also wrestles with another issue that is tenuous between historic preservation and sustainable development – that is, density. A brief discussion of recent efforts by the District to develop in the Brookland neighborhood highlights the difficulty the city faces in promoting both historic preservation and sustainable development. This section concludes that the choice between preservation and sustainable development is a false one and a choice the city need not make. The city derives benefits from both. Therefore, moving forward, District policies must strike a balance between the city's interest in preservation on the one hand, and sustainable development on the other.

Finally, Part VI of this paper looks at District planning documents and asks: What role does historic preservation plays in the city's plan for a sustainable future? The answer to this question is not clear. At times, the city recognizes historic preservation as a tool that can help the District develop sustainably. Still, historic preservation is left out of some of the city's recent plans – most notably, Mayor Fenty's "Green DC Agenda." By further leveraging its preservation program, the District has an opportunity to distinguish itself as a nationwide leader in sustainable development. Accordingly, Part VI concludes by offering a number of steps the District should take to better incorporate historic preservation into its agenda for a sustainable future.

II. THE SCIENCE OF "GREEN PRESERVATION"

The emission of greenhouse gasses – specifically carbon dioxide – is a major cause of global climate change. In the United States, building operation and construction accounts for 45 percent of greenhouse gas emissions and 38 percent of all carbon emissions.[5] In addition, buildings account for 72 percent of electricity consumption and 39 percent of total energy use.[6] Thus, buildings play an integral role in combating climate change and planning for a sustainable future.

Ask preservationists and they will tell you: The greenest building is the one that already exists. Indeed, while new data is emerging, current research supports this proposition and suggests that reusing or retrofitting historic buildings is an environmentally-friendly building practice.

[5] U.S. Green Bldg. Council, *Green Building Research*, http://www.usgbc.org/displaypage.aspx?cmspageid=1718 (last visited May 11, 2009).
[6] *Id.*

A. ENERGY EFFICIENCY OF HISTORIC BUILDINGS

Patrice Frey, the Director of Sustainability Research at the National Trust for Historic Preservation, has released a comprehensive study summarizing much of the data on the environmental benefits of historic buildings.[7] Frey notes that there is a perception that older buildings are energy inefficient; however, data suggests the opposite. In fact, a study by the U.S. Energy Information Agency found that buildings constructed before 1920 are more energy efficient than buildings built between 1920 and 2000.[8] Moreover, a 1999 study by the General Services Administration of all of the agency's buildings found that the utility costs for the agency's historic buildings were 27 percent less than for more modern buildings.[9] Frey attributes these figures to the fact that many older buildings have inherently efficient features because they were built before modern building technology, such as electricity and manufactured building parts. Thus, older buildings used natural materials, natural lighting, and made use of natural ventilation flows – design techniques that are considered green nowadays.[10]

B. EMBODIED ENERGY

Another reason that historic buildings are environmentally sound involves the concept of embodied energy. Embodied energy represents the total amount of energy expended to create a building. That is, all of the energy – including carbon – associated with "extracting, processing, manufacturing, transporting and assembling building materials."[11] By demolishing a building,

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[7] *See* PATRICE FREY, NAT'L TRUST FOR HISTORIC PRESERVATION, BUILDING REUSE: FINDING A PLACE ON AMERICAN CLIMATE CHANGE POLICY AGENDAS 1, 1–39 (2008) [hereinafter Frey, *Building Reuse*].
[8] *Id.* at 21–22.
[9] *Id.* at 22.
[10] *Id.*; *see also* Tristan Roberts, *Historic Preservation and Green Building: A Lasting Relationship*, ENVTL. BLDG. NEWS, Jan. 2007, *available at* http://www.preservationnation.org/issues/sustainability/additional-resources/HPandGreenBuildingArticle.pdf; Mike Jackson, *Building a Culture That Sustains Design*, 36 J. PRES. TECH. 2, 2–3 (2005); Nancy B. Solomon, AIA, *Tapping the Synergies of Green Building and Historic Preservation*, GREENSOURCE, July 2003, *available at* http://archrecord.construction.com/features/green/archives/0307edit-1.asp.
[11] PATRICE FREY, NAT'L TRUST FOR HISTORIC PRESERVATION, MAKING THE CASE: HISTORIC PRESERVATION AS SUSTAINABLE DEVELOPMENT, 1, 4 (2007) [hereinafter Frey, *Making the Case*].

all of this embodied energy is lost. In addition, the demolition creates new waste that will require even more energy to be transported to a landfill.

Alternatively, leaving the current building intact and retrofitting it, if need be, is more environmentally sound than demolishing the building and replacing it with a new one. Of course, this argument is only valid so long as the new building is unable to recapture this lost energy by functioning more efficiently. While the concept of "embodied energy" is well-accepted, Frey admits that quantifying embodied energy is "plagued with methodological issues."[12]

Still, Frey points to a 2008 study that concluded that it takes 35-50 years for a new, energy-efficient home to recover the amount of embodied carbon lost by demolishing the old home.[13] Although the data is murky, given the need to reduce carbon emissions in the very near future,[14] the best policy for now is to reuse and retrofit existing buildings, rather than demolish and build new energy-efficient buildings.[15]

C. LIFE CYCLE ANALYSIS

Life Cycle Analysis ("LCA") is the emerging method to calculate the environmental impacts of buildings. An LCA calculation includes embodied energy, but also considers the environmental impact of a building over the building's entire life-span.[16] For example, LCA attempts to quantify a building's embodied energy, plus all of the associated impacts the building has on "air and water pollution, toxic releases in landfills, and natural resource depletion" from

[12] Frey, *Building Reuse*, *supra* note 7, at 10.
[13] *Id.* at 13.
[14] *Id.* at 14.
[15] *Id.*
[16] *Id.* at 14–15.

the moment the first materials are extracted to the very end of the building's life.[17] Like embodied energy calculations, LCA calculations need further refinement.[18] Still, because LCA involves such an expansive assessment of the energy associated with buildings, LCA is likely the proper method to measure the environmental impacts of buildings. Indeed, many preservationists argue that as LCA calculations become more precise, the data will further demonstrate that the reuse of existing buildings is an inherently green building practice.[19]

While it may seem intuitive that reusing or retrofitting existing buildings is more environmentally sound than demolishing and rebuilding, more research is needed to calculate embodied energy and LCA metrics in order to bolster this claim. Nevertheless, given the urgency of global climate change, it appears that at least for now, preservationists are safe in claiming that "the greenest building is the one that already exists."

III. INVESTING IN HISTORIC DISTRICTS PROMOTES SUSTAINABLE DEVELOPMENT

In addition to the environmental benefits of reusing existing buildings, investing in historic districts encourages sustainable development because it curbs "sprawl" and often promotes "smart growth." Furthermore, there are economic and cultural benefits that flow from investing in historic districts.

Sprawl is typically associated with the movement of people out of cities and into suburbs, but sprawl can refer generally to any land-use that promotes low-density and automobile-

[17] *Id.* at 15. Much of the data on LCA is coming from the Athena Institute, a non-profit seeking "to improve the sustainability of the built environment by meeting the building community's needs for better information and tools." Athena Institute, *About,* http://www.athenasmi.org/about/index.html (last visited May 11, 2009).
[18] *Id.* at 16.
[19] *Id.*; *see also* Frey, *Making the Case*, *supra* note 11, at 6 ("LCA is considered superior to other forms of environmental assessment because it examines impacts during a building's entire life rather than focusing on environmental impacts at a particular stage"); Roberts, *supra* note 10 (noting that embodied-energy numbers are "outdated" and LCA data is more "current").

oriented development.[20] The land-use policy of "smart growth" offers a more sustainable alternative to sprawl.[21] Smart growth champions higher-density development in city-centers, transit-oriented development, the reuse of existing infrastructure, and mixed-use, walkable communities where people are less dependent on automobiles.[22]

In many ways, historic districts are the embodiment of a "smart" community.[23] This seems logical, given that many historic neighborhoods were designed before the invention of the automobile. Historic neighborhoods are usually dense, walkable and accessible by public transportation. Furthermore, like buildings, a neighborhood's infrastructure contains embodied energy. New development requires the expenditure of new money and new energy. On the other hand, reinvesting in older neighborhoods capitalizes on infrastructure that is already built and paid for and the embodied energy contained therein. As Donovan Rypkema puts it, "if a city did nothing but have a strong historic preservation strategy, it would automatically have a strong Smart Growth and Environmental strategy."[24]

Historic districts also promote economic and cultural sustainability. For example, maintaining the aesthetic of historic neighborhoods can generate revenue for a city through

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[20] Michael Lewyn, *New Urbanist Zoning for Dummies*, 58 ALA. L. REV. 257, 257 (2006). Unfortunately, Americans have a real appetite for sprawl. Indeed, Frey notes that "[i]n recent years, land has been developed in the United States at a rate of approximately three times that of population growth. Frey, *Building Reuse*, *supra* note 7, at 17. What this figure suggests is that people are moving farther and farther apart, which has serious consequences for the environment. First, more land development means less land available for farms, open spaces, and wildlife. In addition, new development requires the expenditure of money and energy for new infrastructure. Moreover, the farther people live from work, school, shopping areas, and each other, the more dependent people are on automobiles to access these resources. And of coure, the more people are dependent on cars, the more auto-related pollution.

[21] *See* Donovan Rypkema, Principal, PlaceEconomics, Address at the Historic Districts Council Annual Conference (Mar. 10, 2007) ("[t]he closest thing we have to a broad-based sustainable development movement is known as Smart Growth").

[22] *Id.*

[23] *But see* discussion *infra* Part V.C (discussing the Brookland neighborhood of the District of Columbia and how historic preservation may sometimes clash with the city's efforts to promote "smart growth").

[24] DONOVAN RYPKEMA, D.C. HISTORIC PRESERVATION OFFICE, PLANNING FOR THE FUTURE, USING THE PAST: THE ROLE OF HISTORIC PRESERVATION IN BUILDING TOMORROW'S WASHINGTON, DC 1, 11 (2003).

tourism and increased property values.[25] These sources of revenue may be lost if efforts are not made to preserve the aesthetic of the neighborhood. Moreover, maintaining a historic aesthetic provides cultural benefits that are difficult to quantify, such as increased education about the city's history and increased social capital.[26]

In sum, because historic districts typify a "smart" community, investment in historic districts is a sustainable land-use policy and certainly a more sustainable alternative to sprawl. In fact, if resources are not spent to maintain the aesthetic of a historic district, then a city may lose out on the economic and cultural benefits that historic districts provide.

IV. THE NATIONAL TRUST, U.S. GREEN BUILDING COUNCIL, AND LEED

Green building laws and incentives are one way localities are fostering sustainable development. Overwhelmingly, localities have adopted the Leadership in Energy and Environmental Design ("LEED") program developed by the non-profit, non-governmental, U.S. Green Building Council ("USGBC") as the standard for green building.[27] Under LEED, different projects or buildings can be certified under various rating systems, such as: New Construction & Major Renovations (NC), Existing Buildings (EB)[28], Core and Shell (CS),

[25] Rypkema, *supra* note 21 (citing studies indicating that "properties within local historic districts appreciate at rates greater than the local market overall and faster than similar non-designated neighborhoods").
[26] Frey, *Making the Case*, *supra* note 11, at 21 ("historic buildings can act as focal points around which communities will rally and renew their sense of civic pride").
[27] To date, 186 localities (122 cities, 34 counties, and 30 towns) have incorporated LEED into legislation, ordinances, and local policy. U.S. Green Bldg. Council, *Government Resources*, http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1779 (last visited May 11, 2009). Still, some green building advocates are wary of LEED becoming a government sponsored monopoly. *See* Green Goddess, http://greengoddess-vidaverde.blogspot.com/2009/03/green-isnt-always-great.html (Mar. 21, 2009) (noting that USGBC has "very active lobbyists" and cautioning that government support for LEED may stifle competition in the green building market); CanadaFreePress.com, *Greenpeace Co-Founder Speaks Out Against Activist Attempts to Politicize Green Building Agenda*, http://www.canadafreepress.com/index.php/article/3199 (last visited May 11, 2009) (Dr. Patrick Moore, co-founder of Greenpeace, warning that "[n]o green building standards should have a monopoly….Competition is important to ensuring high quality green building standards that are based on sound science and focused on sustainability").
[28] LEED-EB measures maintenance and operations of existing buildings. It does not apply to rehabilitation of existing buildings.

LEED for Schools, and LEED for Homes.[29] Projects can receive LEED certification at four levels – certified, silver, gold, and platinum – based on the number of points a project receives for efficiency and design in six categories: Sustainable Sites; Water Efficiency; Energy & Atmosphere; Materials and Resources; Indoor Environmental Quality; and Innovation and Design Process.[30]

A. LEED 2009

Historic preservationists have criticized older versions of LEED for failing to recognize the importance of building reuse, as well as the importance of context or location of a building.[31] However, since 2006, the National Trust for Historic Preservation has led a "Sustainable Preservation Coalition" that partnered with the USGBC to better incorporate historic preservation into LEED rating systems.[32] The new version of LEED – called LEED 2009 – launched on April 27, 2009.[33]

LEED 2009 directly promotes the reuse of existing buildings, as well as other smart growth principles. For example, more points are available for construction and renovation of buildings in dense communities with access to public transportation.[34] Additionally, LEED 2009 has an "Alternative Compliance Path" that allows projects to gain points based on the durability and embodied energy contained in the materials used, calculated using LCA

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[29] For a complete list of all LEED rating systems, *see* U.S. Green Bldg. Council, *LEED Rating Systems*, http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222 (last visited May 11, 2009).
[30] *Id.*
[31] Barbara A. Campagna, AIA, LEED AP, *How Changes to LEED™ Will Benefit Existing and Historic Buildings*, PRESERVATION ARCHITECT, Feb. 17, 2009, *available at* http://www.aia.org/practicing/groups/kc/AIAS076321?dvid=4294965183&recspec=AIAS076321; *see also* E-mail from Timothy Dennée, Architectural Historian, D.C. Historic Preservation Office (Mar. 18, 2009, 11:01 EST) (on file with author) [hereinafter *Dennée e-mail*] (Dennée contends "preservationists became critics of LEEDs initial priorities that seemed to encourage the throwing away of sound building elements to be replaced by sexier new ones").
[32] Campagna, *supra* note 31.
[33] LEED 2009 refers to the newest LEED rating system, which is one part of what the USGBC calls "LEED Version 3." LEED Version 3 also includes a new online system and new accreditation process for professionals seeking to become LEED accredited. U.S. Green Bldg. Council, *LEED Version 3*, http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1970 (last visited May 11, 2009).
[34] Campagna, *supra* note 31.

metrics.[35] In fact, projects can continue to earn additional points for durability and embodied energy as new LCA data becomes available. Thus, the Alternative Compliance Path creates an incentive to use as much of the existing building as possible with the expectation that a project will continue to accrue points in the future.

LEED 2009 goes further than previous versions of LEED to recognize the importance of building reuse and investments in existing neighborhoods. Moving forward, the Sustainable Preservation Coalition hopes to incorporate even more "preservation metrics" into future versions of LEED.[36] For example, it is the hope of the coalition that future LEED rating systems incorporate "cultural, social and preservation metrics" so projects can earn points for their architectural significance and their ability to build social capital.[37]

B. LEED FOR NEIGHBORHOOD DEVELOPMENT

Another new initiative called LEED for Neighborhood Development ("LEED-ND") demonstrates that the USGBC recognizes the benefits of historic preservation. LEED-ND launches in Summer 2009, at which point single buildings and entire communities can be certified under LEED-ND if they "successfully protect and enhance the overall health, natural environment, and quality of life of our communities."[38]

Under LEED-ND, points are awarded to projects that incorporate smart growth principles and new urbanism design like walkable streets and mixed-use neighborhoods.[39] Most notably, LEED-ND awards points for "Existing Building Reuse & Historic Building Preservation &

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[35] *Id.*
[36] *Id.*
[37] *Id.; see also* Richard Moe, President, Nat'l Trust for Historic Preservation, Address at the Pocantico Symposium, Historic Preservation and Green Building: Finding Common Ground (Nov. 20, 2008) [hereinafter *Moe Pocantico Speech*] ("the National Trust and USGBC will begin working on the next version of LEED which will incorporate . . . . a new overlay of cultural, social and preservation metrics").
[38] U.S. Green Bldg. Council, *LEED for Neighborhood Development Frequently Asked Questions*, http://www.usgbc.org/ShowFile.aspx?DocumentID=3357 (last visited May 11, 2009).
[39] *Id.*

Reuse."[40] In fact, no points are awarded under this credit if a historic building or portion of a historic building is demolished, unless demolition is approved by the local preservation review board.[41] Like LEED 2009, LEED-ND reflects the USGBC's growing understanding that historic preservation is a green building practice and a sustainable land-use policy.

Localities have embraced LEED as the standard for green building. While older versions of LEED failed to acknowledge the sustainability of historic buildings and neighborhoods, LEED 2009 and LEED-ND demonstrate that the USGBC understands the connection between historic preservation and sustainable development. As the Sustainable Preservation Coalition continues to partner with the USGBC, future versions of LEED may include even more preservation metrics that will go even further to recognize that preservation is a green building practice and a tool to promote sustainable development.

V. THE DISTRICT OF COLUMBIA: CHALLENGES FACING A HISTORIC CITY'S DRIVE FOR SUSTAINABILITY

The remainder of this paper focuses on the District of Columbia. The District provides an ideal case-study to examine the interplay between historic preservation and sustainable development. The District has a rich history, with 45 historic districts and over 25,000 historic houses, apartment buildings, churches, commercial and institutional buildings, which the city safeguards through one of the strongest historic preservation laws in the nation. At the same time, the District and its surrounding area is expected to grow by 1.6 million people in the next twenty years. [42] This growth will certainly lead to new development in the city and put a strain on limited resources.

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[40] Campagna, *supra* note 31.
[41] *Id.*
[42] METROPOLITAN WASHINGTON COUNCIL OF GOV'TS, GREENING THE METROPOLITAN REGION'S BUILT ENVIRONMENT (2007); *see also* DC COMPREHENSIVE PLAN § 215.2, *available at* http://www.planning.dc.gov/planning/cwp/view,a,1354,q,639789,PM,1.asp [hereinafter *Comprehensive Plan*] (projecting that the population of Washington, DC will increase by 121,200 people from 2005 to 2025).

The District government boasts about recent efforts to encourage sustainable development. Some of these efforts include:

- Mayor Fenty joining over 900 mayors across the nation by signing the "U.S. Conference of Mayors Climate Protection Agreement," pledging to meet or exceed Kyoto Protocol targets for reducing global warming in the District;[43]
- Drafting the Mayor's Climate Action Plan, which includes "concrete measures to reduce emissions from District Government operations and across the entire community";[44]
- Passing two new laws – the Green Building Act of 2006 and the Clean and Affordable Energy Act of 2008 – to reduce the environmental impacts of buildings and make them more energy efficient;
- Creating the District Department of the Environment in 2006, a new agency with the goal of improving the District's environment;
- Establishing the "Mayor's Green Team," a team composed of 80 members, representing 40 agencies, to work on climate change, greening District government buildings, public outreach and education, and recycling;[45]

To be sure, the effectiveness of any of these actions is debatable. Still, the city should be commended for attempting to ensure that the city develops in a sustainable way. Nevertheless, it remains to be seen how – and how well – historic preservation can be integrated into the District's drive for sustainability.

This section forecasts situations where historic preservation may prove to be a stumbling block in the city's sustainability initiatives. Indeed, there are potential conflicts between the two laws recently passed by the city and the city's historic preservation law. While many perceived conflicts are exaggerated, there are some sources of tension that may lead to increased conflict in the future, as suggested by recent efforts of District residents to use city funding to install solar electric systems in historic neighborhoods.

Additionally, the issue of density illustrates the difficult decisions the District must make between historic preservation on the one hand, and sustainable development on the other. A

[43] U.S. Conference of Mayors, *The U.S. Mayors Climate Protection Agreement* (2005), *available at* http://www.usmayors.org/climateprotection/documents/mcpAgreement.pdf.
[44] Green DC Agenda, *Spotlight*, http://www.green.dc.gov/green/cwp/view,a,1248,q,462493.asp (last visited May 11, 2009).
[45] Green DC Agenda, *Mayor's Green Team*, http://www.green.dc.gov/green/cwp/view,a,1232,q,460519,greenNav_GID,1459,.asp (last visited, May 11, 2009).

brief discussion of the Brookland neighborhood highlights this tension and reinforces the need for balanced policies that advance the city's interest in both historic preservation and sustainable development.

A. STATUTORY FRAMEWORK OF THE GREEN BUILDING ACT AND THE CLEAN AND AFFORDABLE ENERGY ACT

In the last two years, the District enacted the Green Building Act of 2006 ("Green Building Act") and the Clean and Affordable Energy Act of 2008 ("Energy Act"). Both laws are designed to decrease the environmental impacts of buildings and both laws are potentially in tension with the District's historic preservation law.

1. Green Building Act

In March 2007, the District passed the Green Building Act to establish standards and incentives for green building that are applicable to both private and public developments.[46] At present, publicly-funded "new construction" or "substantial improvements" for residential projects over 10,000 square feet must meet the Green Communities 2006 standard or a "substantially equivalent standard."[47] All publicly-funded non-residential projects must meet LEED-NC 2.2 or LEED-CS 2.0 at the silver certification level.[48] For privately-funded "new construction" or "substantial improvements" of nonresidential spaces of 50,000 square feet or greater, the project must meet LEED-NC 2.2 or LEED-CS 2.0 at the certification level.[49]

To ensure compliance with these standards, private builders must provide the city with a "performance bond." If the building is not verified as meeting the LEED standard, then all or

[46] *See* DC CODE ANN. §§ 6-1451 – et seq. (Lexis 2009). At the time, Washington was the only major U.S. city to require LEED compliance for private projects.
[47] DC CODE ANN. § 6-1451.02(c) (Lexis 2009). The Green Communities initiative is a program administered by a non-profit called Enterprise Community Partners, which builds environmentally sustainable low-income homes. LEED does not have a certification specifically for affordable housing; however, the Green Communities criteria are aligned with LEED criteria. *See* Green Communities, *The Green Communities Criteria*, www.greencommunitiesonline.org/tools/criteria/ (last visited May 11, 2009).
[48] DC CODE ANN. § 6-1451.02(b)(1)(C)(ii) (Lexis 2009).
[49] *Id.* at § 6-1451.03(b)(1).

part of the bond is forfeited to the District and deposited in the "Green Building Fund."[50] The fund is used to pay administrative costs, as well as to pay for education, training, and outreach about green building and to create incentives "to promote early adoption of green building practices."[51]

Finally, the act creates a 13-member "Green Building Advisory Council" ("GBAC"), chaired by the Director of the Department of the Environment and consisting of the Director or a designee of the Office of Planning, Department of Consumer and Regulatory Affairs, and Department of Housing and Community Development. In addition, the Mayor appoints six members of the GBAC from the private and nonprofit sectors. The final two members are appointed by the City Council.[52] The primary function of the GBAC is to advise the Mayor on revisions to the Construction Codes to "incorporate as many green building practices as practicable for the Washington, DC urban environment."[53] Beginning January 1, 2010, and every three years thereafter, the Mayor must submit to the City Council revisions to the Construction Codes to incorporate more green building practices.[54]

2. Clean and Affordable Energy Act

The Energy Act went into effect in October 2008 and establishes goals for energy efficiency and renewable energy in the District.[55] To achieve these goals, the Energy Act redirects a portion of all electrical and natural gas utility sales into the "Sustainable Energy Trust

[50] *Id.* at § 6 -1451.05(g). The act also increases the cost of a construction permit by charging a "green building fee" for all new construction, alterations, and repairs exceeding $1,000. This money is also deposited into the Green Building Fund. *Id.* at § 6-1451.08.
[51] *Id.* at §§ 6-1451.06 – 7. At present, any private residential or commercial project – regardless of size – that will meet LEED certification at the gold level, qualifies for "Expedited Permit Review." Furthermore, beginning October 1, 2009 and continuing through 2015, grants will gradually become available for private residential and commercial buildings seeking to meet LEED certification. *Id.* at §§ 6-1451.06(c)(1)(A)–(C).
[52] *Id.* at § 6-1451.09(c)(1).
[53] DC CODE ANN. § 6-1412(a) (Lexis 2009).
[54] *Id.* at § 6-1412(b).
[55] *See generally* DC CODE ANN. §§ 8-1773.01 – 8-1775.01 (Lexis 2009).

Fund" ("SETF"). The SETF funds the "Sustainable Energy Utility," ("SEU") a private entity contracted to administer the District's sustainable energy programs.[56] The SEU and the SETF are monitored by the "SEU Advisory Board," a 13-member board.[57]

Under the Energy Act, SETF money is also used to help fund current and future sustainable energy systems. For example, the District Department of the Environment ("DDOE") uses SETF funds to establish a "Renewable Energy Incentive Program" that provides $2 million in rebates each year from 2009-2012 to property owners with renewable energy systems such as: solar photovoltaic; solar thermal; geothermal; wind; biomass; and methane or waste-gas capture.[58] In addition, SETF money is allocated to the Public Service Commission to investigate a long-term plan to help consumers purchase renewable energy systems and make improvements to doors and windows to increase their efficiency.[59] Finally, by October 2009, the Mayor must commission a study "to determine the economic, legal, and technical viability of the District government pursuing a new large-scale wind energy project through public financing or private financing."[60]

B. CONFLICTS WITH HISTORIC PRESERVATION ACT: APOCRYPHAL OR POTENTIAL PITFALLS?

One central aim of both of the Green Building Act and the Energy Act is to reduce the environmental impact of buildings by mandating green building techniques and providing incentives for building owners to make energy efficient installations on their property. Given the requirements for alterations and new construction under the Historic Landmark and Historic

[56] *Id.* at § 8-1774.01(a).
[57] *Id.* at §§ 8-1774.03(a) – (g).
[58] *Id.* at §§ 8-1774.09(a) – (m).
[59] *Id.* at §§ 8-1774.13(a) – (c).
[60] DC CODE ANN. § 8-1775.01 (Lexis 2009).

District Protection Act ("Historic Preservation Act"),[61] the application of these laws to historic buildings and within the city's 45 historic districts may prove challenging. At least conceptually, it is difficult to imagine how a new "green" building made of recycled materials or the installation of solar panels could ever be compatible with, say, the Victorian architecture of Capitol Hill.

1. Perceived Conflicts Under the Green Building Act are Likely Overblown

There is little tension between the Green Building Act and the Historic Preservation Act. First, the Green Building Act only covers "new construction" and "substantial improvements" of buildings.[62] New construction includes in its definition "addition[s] to an existing building"[63] that increase the "building area, aggregate floor area, height, or number of stories."[64] A substantial improvement is a project, the cost of which is expected to exceed fifty percent of the fair market value of the property.[65] Notably, substantial improvement excludes from its definition "[a]ny alteration[66] of a historic structure provided that the alteration will not preclude

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[61] The Historic Preservation Act requires permits for "new construction" within historic districts and "alterations" of historic landmarks and contributing buildings within historic districts. DC CODE ANN. §§ 6-1105 – 1107 (Lexis 2009). The Mayor (or Mayor's Agent) may only issue a permit for alteration if issuance is "necessary in the public interest" or failure to issue the permit will result in "unreasonable economic hardship to the owner." *Id.* at § 6-1105(f). An alteration is "necessary in the public interest" if it allows a project of "special merit" or is "consistent with the purposes" of the act. *Id.* at § 6-1102(10). The purposes of the act are two-fold: (1)"to retain and enhance [historic properties] . . . and encourage their adaption for current use"; and (2) "[t]o assure that alterations of existing structures are compatible with the character of the historic district. *Id.* at § 6-1101(b)(1).

The standard for granting a permit for new construction is slightly different than for alterations. A permit "shall be issued unless the Mayor . . . finds that the design of the building and the character of the historic district or landmark are *incompatible*. . . ." *Id.* at § 6-1107(f) (emphasis added). This difference in statutory language results in a difference in the allocation of the burden of proof. An applicant for an alteration permit must prove that the alteration is compatible, whereas the party opposing an application for new construction must prove that the new construction is *incompatible*. Finally, a permit for new construction may be issued if the project is of "special merit." *Id*.

[62] DC CODE ANN. §§ 6-1451.02(a) & 6-1451.03(a) (Lexis 2009).

[63] *Id.* at § 6 -1451.01(33).

[64] DC CODE MUN. REGS. § 12J-202 (Weil 2009).

[65] DC CODE MUN. REGS. § 20-3599 (Weil 2009).

[66] "Alteration" is defined as "any construction or renovation to an existing structure other than repair or addition, including: (1) reconfiguration of any space; (2) addition or elimination of any door or window; (3) reconfiguration or extension of any system; or (4) installation of any additional equipment." DC CODE ANN. § 6-1410(a)(2) (Lexis 2009).

the structure's continued designation as a historic structure."[67] In other words, rehabilitations of historic buildings need not meet the requirements of the Green Building Act, provided the rehabilitation does not increase the size of the building to the point that the rehabilitation would be considered new construction. Indeed, because a builder can get out from under the requirements of the Green Building Act by rehabilitating a historic structure, there may be an incentive for builders to rehabilitate historic buildings, which is obviously good for preservationists and as discussed in Part-II, is good for environmentalists as well.[68]

Of course, new construction in historic districts could present issues of compatibility. However, concerns about fights over the aesthetics of new "green-looking" buildings in historic districts are likely overblown. With respect to privately-funded new construction, the project must be at least 50,000 square feet before the Green Building Act requirements kick-in. New construction of this size is simply not that common in historic districts. The District is a major city and there is not an abundance of open spaces to build, particularly in historic districts.

Additionally, issues of compatibility are unlikely even for District-funded new construction, which is required to be Green Communities certified for residential projects and LEED certified for all non-residential projects, regardless of size. DC Historic Preservation Officer Tim Dennée notes, "[a]s LEED typically applies to new construction, there is naturally even less conflict. . . . The preservation law's standard for new construction is that it not be incompatible . . . and thus we have flexibility to approve many things as long as they are generally harmonious."[69]

Finally, even if the project involves the rehabilitation of a historic structure, but requires so much work that the project falls within the Green Building Act's definition of "new

[67] DC MUN. REGS. § 20-3599 (Weil 2009).
[68] *See* discussion *infra* Part II.
[69] *Dennée e-mail*, *supra* note 31.

construction," issues of compatibility are even less likely. After all, it is in the applicant's best interest to preserve as much of the existing building as possible in order to accrue LEED points. Indeed, this incentive would be even greater if the District amends the Green Building Act to include LEED 2009 and LEED-ND which award more points for existing building reuse than the current versions of LEED.

2. The Application of the Energy Act to Historic Landmarks and Historic Districts May Present Challenges

Unlike the Green Building Act, the Energy Act and Historic Preservation Act do not mesh quite so easily. Specifically, the "Renewable Energy Incentive Program" ("REIP" or "the REIP") could prove problematic as applied to historic landmarks and districts. The REIP offers rebates for property owners to install renewable energy systems.[70] Aesthetic concerns may make it difficult for historic property owners to take advantage of REIP. Indeed, recent efforts in Mount Pleasant highlight some of these difficulties.

a. Historic Property Owners Could Be Left Out of the REIP

In February 2009, the District Department of the Environment rolled-out the first piece of REIP by offering rebates to residential and commercial property owners to assist in the installation of solar photovoltaic and wind turbine energy systems.[71] Even though the rebate is available for wind turbines, the DDOE cautions against installing small wind turbines, as they are likely unfit for the District's climate.[72]

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[70] DC CODE ANN. § 8-1774.09(a) (Lexis 2009).
[71] Green DC Agenda, *Renewable Energy Incentive Program,* http://green.dc.gov/green/cwp/view,a,1244,q,461562.asp. (last visited May 11, 2009).
[72] Indeed, the DDOE cautions residential building owners that "a general lack of constant wind resource in most of the District may limit your options to install a reliable system that functions as desired." DIST. DEP'T OF ENV'T, GUIDE TO SOLAR PHOTOVOLTAIC INCENTIVES, 1, 12 (2009), *available at* http://green.dc.gov/green/lib/green/pdfs/REIP.Guide.Photovoltaic_Incentives.pdf [hereinafter *DDOE Guide*]. Wind turbine installations are not recommended in areas where the average annual wind speed is less than ten miles per hour. American Wind Energy Association, *Frequently Asked Questions,* http://www.awea.org/faq/rsdntqa.html#Howdoresidentialwindturbineswork (last visited May 11, 2009). The average annual wind speed at Regan National Airport and Dulles International Airport is 9.4 and 7.4 miles per hour, respectively. Dep't of Atmospheric Sciences, University of Utah, *National Average Wind Speeds,*

For solar photovoltaic systems, however, property owners are eligible for up to $33,000 in rebates per year, based on the kilowatts of energy the system produces.[73] The REIP has already led to increased desire from property owners to install solar electric systems. In fact, on April 30, 2009, DDOE announced that due to "tremendous interest," the agency has already committed the $2 million allocated to REIP for 2009.[74]

As part of REIP, the DDOE published a *Guide to Solar Photovoltaic Incentives* ("DDOE Guide"). The DDOE Guide states, "[t]he District government is supportive of retrofits that promote the implementation of renewable technologies into historic structures," but because these systems may alter the building's appearance, "consideration must be given to neighborhood ordinances and community associations."[75] The DC Historic Preservation Office ("DC-HPO") also has design guidelines stating that solar electric and other installations are generally okay as long as they are not visible from a public street.[76]

As demand increases, new products are on the market that allows solar installations to be unnoticeable. Tim Dennée notes, "[solar installations that are visible from the street are] more of a 1970s-era issue. Recent advancement in solar technology has allowed the creation of products

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http:///www.met.utah.edu/jhorel/html/wx/climate/windavg.html (last visited May 11, 2009). Thus, the DC-HPO can safely recommend against installation of unsightly wind turbines not only on aesthetic grounds, but environmental grounds as well.

[73] *DDOE Guide*, *supra* note 71, at 6.

[74] Green DC Agenda, *Renewable Energy Incentive Program*, http://green.dc.gov/green/cwp/view,a,1244,q,461562.asp (last visited May 11, 2009). The city is attempting to secure additional funding for REIP from the American Recovery and Reinvestment Act.

[75] *DDOE Guide*, *supra* note 71, at 14. Some energy systems – like geothermal heat pumps, gas capture systems, biomass boilers and green roofs – are not typically visible from the street. Tim Dennée says DC-HPO has had "several instances" of geothermal installations that "did not raise preservation concerns." Dennée email, *supra* note 31. Furthermore, most green roof installations in the District are low-profile and involve planting sedum, which grows low to the ground. Telephone Interview with Nora Shepard, Director of Public Partnerships, DC Greenworks (Apr. 16, 2009).

[76] DC HISTORIC PRESERVATION OFFICE, HISTORIC PRESERVATION GUIDELINES: ROOFS ON HISTORIC BUILDINGS, 1, 11, *available at* http://www.planning.dc.gov/planning/frames.asp?doc=/planning/lib/planning/preservation/design_guides/roofs.pdf [hereinafter *Roof Guide*].

such as roof shingles containing photovoltaic cells and circuits. . . ."[77] Still, solar roof shingles are more expensive and less efficient than larger, mounted solar panels.[78] Additionally, installation costs are higher for solar shingles because installation essentially involves re-roofing.[79] Furthermore, the DDOE Guide specifies certain types of solar installations that are "particularly desirable" to receive REIP funding. The DDOE Guide states a preference for solar installations that are "accessible to public viewing."[80] Under the DC-HPO guidelines, a rebate-applicant in a historic district would not be able to satisfy this preferred criterion. This could lead to resentment from property owners, as they may see historic preservation as impeding their attempts to be more environmentally conscious.

b. Mount Pleasant Solar Cooperative

Design limitations may make it difficult – even cost-prohibitive – to install solar energy systems. A good example is the Mount Pleasant Solar Cooperative. The co-op is an association of 70-plus buildings in the Mount Pleasant historic district. In an effort to reduce the up-front costs of a solar installation, the co-op is attempting to collectively purchase a large rooftop system to power all 70-plus buildings. The co-op is applying for the REIP rebate.[81]

According to the resident leading this effort, the preservation community in Mount Pleasant is supportive of the co-op's efforts.[82] However, the resident irked that preservation permits have taken the longest to complete and therefore more money.[83] Additionally, the co-op

[77] Dennée email, *supra* note 31.
[78] Telephone Conversation Phone conversation with Brian Desmond, Residential Solar Consultant, Standard Solar, Gaithersburg, MD (May 8, 2009).
[79] *Id.*
[80] *DDOE Guide*, *supra* note 71 at 12.
[81] *See generally* Mount Pleasant Solar Cooperative, http://www.mtpleasantsolarcoop.org/ (last visited May 12, 2009).
[82] Email from Anya Schoolman, President, Mount Pleasant Solar Cooperative (Mar. 29, 2009, 10:49 EST) (on file with author).
[83] *Id.*

was limited in its choice of solar panels because of aesthetic concerns.[84] The Mount Pleasant co-op has been able to work with preservationists thus far, but the co-op's experience suggests that similar projects in other historic neighborhoods may be thwarted by the associated costs that historic preservation may impose on the project. A community like Mount Pleasant may be able to absorb the additional costs imposed by design limitations, whereas a lower-income historic district – like Anacostia – may not.

One reason Mount Pleasant may not run into trouble is because most – if not all – of the buildings in the co-op have flat roofs. A historic district where there are more sloping roofs may run into more trouble. The DC-HPO guidelines state that "[i]f located on sloping roof buildings, [solar panels] should only be installed on rear slopes that are not visible from a public street."[85] This may be easier said than done for a Mount Pleasant-sized installation on buildings with sloping roofs. After all, panels have to be installed such that they receive maximum sunlight – usually southern-facing.

The rebate that DDOE rolled-out in February is the first of many under the REIP. It remains to be seen whether DC-HPO will have more issues with solar installations now that the District started offering rebates to property owners. One thing is certain: property owners in historic districts are anxious to take advantage of the REIP money. In fact, the Mount Pleasant model is already being replicated in other historic districts. On May 12, 2009, the Capitol Hill Energy Coop held its second "Solar Roof Meeting" to discuss pursuing an installation similar to the one in Mount Pleasant.[86] Put simply, increased incentives from the District government, plus

[84] *Id.*
[85] *Roof Guide*, *supra* note 75 at 11.
[86] *See generally* Capitol Hill Energy Cooperative Homepage, http://capitolhillenergycoop.googlepages.com/ (last visited May 12, 2009).

innovations like solar cooperatives, are likely to lead to new challenges for historic preservationists.[87]

Of course, DC-HPO will consider projects like Mount Pleasant on a case-by-case basis. Still, as property owners in historic districts come up with innovative sustainability measures like solar cooperatives, there may be pressure on DC-HPO to rethink the "no visibility from the street" policy. The DC-HPO may want to allow visible solar panels, particularly if the solar systems are easily detachable from the existing structure and will not cause permanent damage when installed.[88] After all, prohibiting a single property owner from putting in a solar electric system is one thing; prohibiting the entire neighborhood is quite another.[89]

C. DENSITY: THE 800-POUND GORILLA?

At the 2008 "Green Building and Historic Preservation Symposium" in Washington, DC, Richard Moe, President of the National Trust for Historic Preservation, remarked:

> I want to mention one last issue. It's a question for which I don't have an answer, but we need to find one soon. In many discussions of preservation as

[87] *See e.g. Moe Pocantico Speech, supra* note 37 (nationwide there are "very real conflicts between preservation and sustainable development goals . . . . [For example] [i]n many cases, solar technologies can be accommodated in historic rehab projects, but there are other instances in which aesthetics or concerns about historic fabric make their use undesirable").

[88] The District could consider a provision in the Historic Preservation Act's definition of "compatible" to permit energy-saving alterations like solar panels. Indeed, if visible solar panels are *per se* incompatible, then it is unclear on what statutory grounds a permit could ever be granted. Denying a permit to install a solar energy system might make it difficult for a property owner to lower her utility bill, but it would not amount to a "taking" of the property. Thus, under current law it is extremely unlikely that a building owner could seek approval of such a project on the grounds of "unreasonable economic hardship." DC CODE ANN. § 6-1103(14) (Lexis 2009). An argument could be made that a solar energy installation is an alteration that allows a "project of special merit." That is, installations of renewable energy systems – in the aggregate – yield a cleaner environment, which provides "significant benefits to the District of Columbia or to the community . . . [and has] a high priority for community services." *Id.* at § 6-1102(11). This argument could be especially compelling for a "Mount Pleasant-sized" installation, where the energy savings could be quite significant. However, special merit is typically invoked in demolition projects. Moreover, granting an alteration permit for large solar installations on the grounds of "special merit" could set a dangerous precedent. Indeed, it could lead to property owners arguing special merit to install any new "green" product that hits the market.

[89] *See* Edna Sussman, RESHAPING MUNICIPAL AND COUNTY LAWS TO FOSTER GREEN BUILDING, ENERGY EFFICIENCY, AND RENEWABLE ENERGY, 16 N.Y.U. ENVTL. L.J. 1, 30 (2008) (arguing "[c]ommunities should revisit their laws and guidelines . . . in light of current technology and environmental realities, and make the changes . . . to streamline the installation of on-site renewable energy"). California has amended its law to disallow local agencies from creating "unreasonable barriers to the installation of solar energy systems," expressly barring "design review for aesthetic purposes." *Id.* at 30–31.

> sustainable development, the 800-pound gorilla in the room is the issue of density. On the one hand, it's generally accepted that density is essential to sustainable development, since, among other things, it helps control sprawl and makes mass transit a viable alternative to auto-dependency. On the other hand, some argue that preservation regulations thwart sustainable development by preventing new construction that would increase density in historic neighborhoods.[90]

A brief discussion of the District's planned development in the northeast DC neighborhood of Brookland highlights how the issue of density can make it difficult for the city to promote both historic preservation and sustainable development.

1. Brookland/CUA Metro Station Small Area Plan

Even though the neighborhood likely qualifies for historic district designation, the Brookland neighborhood in northeast DC is not a historic district. In fact, past efforts to declare Brookland a historic district were met with strong opposition from residents.[91] On January 2009, the District Office of Planning released its "Brookland/CUA Metro Station Small Area Plan" ("Brookland plan") to build a dense, mixed-use, transit-oriented development all within a five-minute walk from the Metro station.[92] In other words, the District is promoting smart growth.

In response to the city's plan, there have been rumblings about reconsidering historic district designation for Brookland. Historic district designation would help maintain the aesthetic of the Brookland neighborhood and limit the scope of development. Granted, the residents of Brookland have a legitimate interest in ensuring that the new development "fits in" with the neighborhood. Certainly, designating Brookland a historic district would subject the new development to the requirements of the Historic Preservation Act. Nevertheless, the city

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[90] Richard Moe, President, Nat'l Trust for Historic Preservation, Keynote Address at the Green Building and Historic Preservation Symposium (Apr. 29, 2008).
[91] Sarah N. Conde, "Striking a Match in the Historic District: Opposition to Historic Preservation and Responsive Community Building" (April 30, 2007). *Georgetown Law. Georgetown Law Historic Preservation Paper Series.* Paper 24. http://lsr.nellco.org/georgetown/hpps/papers/24.
[92] DISTRICT OF COLUMBIA OFFICE OF PLANNING, BROOKLAND/CUA METRO STATION SMALL AREA PLAN, 1, 1–67, *available at* http://www.planning.dc.gov/planning/cwp/view,a,1285,q,645935.asp [hereinafter *Brookland Plan*].

cannot be frozen-in-time and historic preservation should not be a mechanism to completely thwart the city's sustainability efforts.

2. Balancing Historic Preservation and Sustainable Development

Brookland illustrates tension that can exist between historic preservation and sustainable development. However, the choice between historic preservation and sustainable development is a false one – and one the District need not make. Rather, because the city benefits from both historic preservation and promoting dense development like the Brookland plan, District planning policies must strike a balance that allows the city to develop in a sustainable way, while maintaining a historic aesthetic.

On the one hand, preservationists need to recognize the benefits of dense, mixed-use, and transit-oriented development. After all, this type of development can help attract new residents to an area like Brookland. Of course, new residents means more money for Brookland's small businesses, as well as for the District. Among other things, more money for the city means more funds to rehabilitate historic structures and neighborhoods.

The population of Brookland has steadily declined from 10,000 residents in the 1950s to roughly 6,000 today.[93] In fact, over the last four decades, the population of the entire District has dropped by almost 25 percent.[94] One of the goals of the Brookland small area plan is to restore the population of the neighborhood to levels enjoyed in the 1950s.[95] Indeed, if the population of the DC-metro area is expected to grow by 1.6 million people over the next twenty years, certainly, the city has a compelling interest in making sure some of these new "transplants" choose to live inside the District. But the city is only so big. Thus, building a

[93] *Brookland Plan, supra* note 89, at 15–16.
[94] *Comprehensive Plan, supra* note 41, at § 203.1.
[95] *Brookland Plan, supra* note 89, at 17.

dense, mixed-use development close to an existing Metro station is one way to attract – and make room for – the growing population.

Preservationists also need to recognize the environmental benefits of development like the Brookland plan. District estimates suggest that the surrounding suburbs are planning to add "620,000 jobs during the next 25 years but only 273,000 households."[96] This type of growth could lead to increased sprawl if new residents choose to live farther away from already developed areas. Of course, sprawl means more land consumed, more resources consumed, and more dependency on automobiles. In contrast, the Brookland plan offers the "smart" alternative to sprawl by making use of the existing infrastructure around the Metro and increasing capacity for new residents.

On the other hand, the importance of maintaining the historic aesthetic of the Brookland neighborhood should not be discarded. Preservation offers its own economic benefits, such as revenue from tourism. In addition, preservation offers social benefits such as civic pride, sense of place, and a connection with history.[97] These benefits are not easily measured in dollars and cents, but they have significant value nonetheless. While zoning can limit the size of development, it cannot ensure that the new construction will be visually compatible with Brookland's unique feel. Thus, even though smart growth is an important piece of sustainable development, the District should be slow to promote growth at the expense of a historic aesthetic, lest the city lose out on the economic and cultural benefits that historic neighborhoods provide.

A close look at the Brookland plan suggests that the District recognizes the importance of striking this balance. Indeed, "Guiding Principles" of the plan include protecting "existing

[96] *Comprehensive Plan, supra* note 41 at § 202.4.
[97] *See* Frey, *Making the Case, supra* note 11 at 19–22 ("[t]he built environment provides us with a sense of place that helps shape our individual and collective identities").

neighborhood character" and highlighting "neighborhood historic and cultural resources."[98] Whether the Brookland plan follows these principles remains to be seen. Still, the issue of density does not have to be an 800-pound gorilla; it merely calls for District policies to strike the proper of balance between sustainable development and historic preservation.

VI. OPPORTUNITIES MOVING FORWARD: SUGGESTIONS FOR HOW TO BETTER INTEGRATE HISTORIC PRESERVATION INTO THE CITY'S SUSTAINABILITY INITIATIVE

A forecast of conflicts over solar installations and the difficulties involved in balancing density and historic preservation should not overshadow a few key facts: (1) while there are new incentives for property owners to install renewable energy systems that may not be compatible, thus far, major fights between property owners and the DC-HPO are largely speculative; (2) despite the fact that historic districts could be more dense, they are already some of the most dense areas of the District[99]; and most importantly, (3) preserving and investing in the city's existing buildings and neighborhoods is still a more sustainable building practice than demolition and new construction. In other words, historic preservation is more than a movement concerned with aesthetics; preservation can be an important tool in building a sustainable city.

Mayor Fenty's recent "Green DC Agenda" does not directly recognize the importance of historic preservation. This is unfortunate. Still, for the most part, District planning documents indicate that the city recognizes the connection between historic preservation and sustainable development. Nevertheless, even if preservation is recognized on paper, more should be done in practice. This section gives an overview of the District's planning documents and then recommends steps the city should take to better incorporate historic preservation into the city's drive for sustainability.

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[98] *Brookland Plan, supra* note 89 at 36.
[99] *Comprehensive Plan, supra* note 41, at § 10-205.1 (the District is the sixth densest city in America).

A. OVERALL, DISTRICT PLANNING DOCUMENTS RECOGNIZE THAT HISTORIC PRESERVATION PROMOTES SUSTAINABLE DEVELOPMENT

In 2006, the District completed a three-year process of revising its Comprehensive Plan ("the Plan"). The new version of the Plan outlines the vision for the District over the next twenty years. The Plan contains twelve "Citywide Elements," including "Land Use," "Environmental Protection," "Urban Design," and "Historic Preservation."[100] Each element lists "goals" that describe "ideal future conditions for a particular topic" under the element.[101] Then, each element lists "policies" and "action steps" to implement the goals. In addition to the Historic Preservation Element of the Comprehensive Plan, in 2008 the city published a five-year plan for the historic preservation program ("Five-Year Plan").[102]

The historic preservation planning documents call for preservation to play an active role in the city's sustainability initiative. For example, in the Five-Year Plan, the city lists as one of its objectives to, "Integrate Preservation with Economic Development and Sustainability Goals."[103] As a strategy to reach this objective, the city plans to "[p]romote greater understanding and awareness of historic preservation as a means of achieving environmental and economic sustainability."[104] An action to implement this strategy is to "[e]nsure that rehabilitation and reuse of existing buildings are valued appropriately in the preparation of new environmental building codes and regulations."[105]

Other elements of the Comprehensive Plan also call for more investment in historic buildings. For example, the Arts and Culture Element encourages "non-profit and private arts

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[100] *Id.* at § 104.4.
[101] *Id.* at § 108.4.
[102] DC HISTORIC PRESERVATION OFFICE, PRESERVING COMMUNITIES AND CHARACTER: THE HISTORIC PRESERVATION PLAN FOR THE DISTRICT OF COLUMBIA 2008-2012, 1, 1–44, *available at* http://www.planning.dc.gov/planning/frames.asp?doc=/planning/lib/planning/preservation/grants_and_financial_assistance/hp_plan_2008-20012.pdf [hereinafter *Five-Year Plan*].
[103] *Id.* at 25.
[104] *Id.*
[105] *Id.* at 26.

organizations to work closely with historic preservation organizations to reuse historical buildings, including historic theatres, as cultural centers."[106]

Other elements discuss historic preservation as an aesthetic that must be considered as the city develops. To illustrate, the Land Use Element of the Plan calls for more "Transit-Oriented Corridor Development," but cautions that the city must "tailor the reach of transit-oriented development policies . . . to reflect the specific conditions at each Metrorail station and along each transit corridor. The presence of historic districts . . . should be a significant consideration as these policies are applied."[107] Notably, the Environmental Protection Element sets a goal of "Promoting Green Building," with an action step of creating an incentive program to encourage the rehabilitation of existing structures.[108] At least on paper, preservation plays an important role in the District's plan for a sustainable future.

B. SUGGESTIONS FOR HOW THE DISTRICT CAN BETTER INCORPORATE HISTORIC PRESERVATION IN ITS SUSTAINABILITY AGENDA

In the spirit of the Comprehensive Plan, below are a number of "action steps" the District should take to capitalize on the opportunity the city has to better integrate historic preservation into its drive for sustainability.

1. Continue to Make the Case "On Paper"

Overall, District planning documents do a commendable job of incorporating historic preservation into the city's sustainability plans. Of course, the Mayor's failure to mention historic preservation in his "Green DC Agenda" is troublesome. Indeed, one has to wonder whether DC-HPO was consulted at all. Nevertheless, future planning documents should explicitly recognize that historic preservation is more than an aesthetic to be considered – it is also a tool that helps promote sustainable development.

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[106] *Comprehensive Plan, supra* note 41, at § 1410.2.
[107] *Id.* at § 306.16.
[108] *Id.* at § 614.5.

The DC-HPO plans to release a draft of its Work Plan for FY 2010 for public comment on May 22, 2009. Like the DC-HPO did in the Five-Year Plan, this work plan should set as a priority, the incorporation of historic preservation in the city's sustainability initiatives.

2. Bring Preservationists to the Table

The Five-Year Plan calls for the integration of historic preservation with the city's sustainability goals. It is more difficult to ensure that historic preservation finds its way onto the city's sustainability agenda if historic preservationist interests are not represented "at the table." To ensure that preservationists are not left out, preservationist interests should be represented on the Mayor's Green Team. In addition, a representative from the DC-HPO should sit on the Green Building Advisory Council – the entity charged with revising the construction code to "incorporate as many green building practices as practicable."[109] DC-HPO representation on the Green Building Advisory Council will help ensure that the city's green building initiatives take into account the importance of building reuse and retrofits.

More dialogue between the District Department of the Environment and the DC-HPO is also needed. As the DDOE continues to roll-out incentives for property owners to install renewable energy systems on their homes, these incentive programs should not be designed in such a way that excludes owners of historic buildings. At present, the DDOE states that solar installations that are "accessible for public viewing" are "particularly desirable" for receipt of the rebate.[110] Perhaps the DDOE should also list as "particularly desirable" renewable energy installations that "implement design techniques that are respectful of the building's historic character."

[109] DC CODE ANN. § 6-1412(a) (Lexis 2009).
[110] *DDOE Guide*, *supra* note 71, at 12.

3. Amend the Green Building Act

Amending the Green Building Act to include LEED 2009 and LEED-ND is in the best interest of historic preservationists and green building enthusiasts. These two new versions of LEED reflect emerging scientific data that confirms the environmental benefits of existing building reuse. The Green Building Act should be amended to eventually require public and private projects to meet LEED 2009 standards. Furthermore, once LEED-ND is released, the District should create incentives – such as expedited permitting – for projects that are certified LEED-ND. At present, nine projects in the District are part of the pilot phase of LEED-ND.[111] To meet LEED-ND standards, these projects can accrue points by using existing buildings. For future development that occurs in non-historic districts – where buildings may not be protected by the demolition provisions in the Historic Preservation Act – creating incentives for developers to meet LEED-ND standards will encourage the rehabilitation of existing historic buildings, which is an environmentally sound building strategy. Moreover, if these areas are ever designated as historic districts, more of the historic building stock will have been preserved, which is good for preservationists.

4. Provide Funding for Preservation Initiatives

Funding for historic preservation should be seen as an investment in sustainable development. The District should increase funding for the DC Main Streets program, which provides technical and financial assistance "to assist businesses and coordinate *sustainable* community-driven revitalization efforts" in existing commercial corridors throughout the city.[112] The DC Main Streets program provides an already-established framework for the District to

[111] U.S. Green Bldg Council, *LEED for Neighborhood Development Registered Pilot Project List*, http://www.usgbc.org/ShowFile.aspx?DocumentID=3546 (last visited May 12, 2009).
[112] District of Columbia Main Streets Homepage, http://restore.dc.gov/restoredc/cwp/view.asp?a=1407&q=572036&restoredcNav_GID=1834 (last visited May 12, 2009).

invest in existing neighborhoods, which capitalizes on existing buildings, infrastructure, and the embodied energy therein.

In addition, increased funding for the District's Historic Preservation Office will help developers and building owners implement green building techniques and renewable energy systems in a way that does not compromise the District's historic aesthetic. For example, money can be used to get DC-HPO staff LEED-accredited. For any construction projects in historic districts where the building owner is seeking LEED certification, having the DC-HPO staff LEED-accredited would make early consultation between developers and DC-HPO staff more productive. Moreover, having a DC-HPO staff that is well-versed on renewable energy systems will allow the DC-HPO staff to function as a resource for property owners seeking to increase the energy efficiency of their buildings. The staff can encourage the use of non-visible energy systems, but more importantly, the staff can dissuade property owners from installing unsightly energy systems that offer little-to-no environmental benefit – small wind turbines, for example. No doubt the DC-HPO already consults with property owners on these matters. Still, increased funding can also be used by the DC-HPO to update the *Historic Preservation Design Guidelines* to educate property owners on new renewable energy systems as they come to market.

Increased funding can also be used to fund the Historic Homeowner Grant Program. This grant helps qualified homeowners restore or rehabilitate their historic homes. However, the program's guidelines explicitly state that "work intended primarily to increase a home's energy efficiency, etc. are not eligible under this program."[113] While the entire grant program need not

[113] DC HISTORIC PRESERVATION OFFICE: THE HISTORIC HOMEOWNERS GRANT PROGRAM, *Frequently Asked Questions, available at* http://planning.dc.gov/planning/frames.asp?doc=/planning/lib/planning/preservation/grants_and_financial_assistance/faq_spring_2009.02.09.pdf.

be used to fund renewable energy installations, the DC-HPO could earmark some funds to demonstrate successful energy retrofits of historic properties.

Finally, increased funding to the DC-HPO can help the District gain national recognition for its preservation and sustainability programs. For example, in the DC-HPO's Annual Work Plan for 2009, one priority for the DC-HPO is to launch a partnership with the National Trust for Historic Preservation to undertake projects to demonstrate "green renovations" of historic buildings and to provide job training to District residents on how to retrofit historic buildings.[114] This is a great idea. In March 2009, the National Trust launched the "Preservation Green Lab" – a program that partners with cities and uses these cities as models for how municipalities and states around the country can "fully consider historic preservation and existing building stock in formulating their climate change action plans."[115] The District would be missing an opportunity by not participating in the Preservation Green Lab. Already, the District should be celebrated for its robust preservation program and its progressive sustainability agenda. Still, a partnership with the National Trust would help the city discover innovative ways to better integrate its preservation program and sustainability agenda – which can certainly include a job-training program to teach District workers how to retrofit historic buildings. Moreover, a partnership with the National Trust would bring national attention to the efforts of the District. Indeed, a partnership with the National Trust would help launch the District to the forefront of the sustainable development movement and bring a positive image to the city.

In sum, the District's planning documents indicate a commitment by the city to invest in existing buildings and existing neighborhoods. Nevertheless, increased involvement from

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[114] DC HISTORIC PRESERVATION OFFICE: ANNUAL WORK PLAN FOR 2009, *available at* http://www.planning.dc.gov/planning/frames.asp?doc=/planning/lib/planning/preservation/grants_and_financial_assistance/work_plan_2009.final.pdf.

[115] National Trust for Historic Preservation, *Preservation Green Lab*, http://www.preservationnation.org/issues/sustainability/green-lab (last visited May 12, 2009).

preservationists in future plans, simple changes to the law, and increased funding for the District's Historic Preservation Office are action steps the District should take to leverage its historic preservation program and capitalize on the opportunity the city has to become a model for sustainable development.

VII. CONCLUSION

Historic preservation is more than a movement concerned with aesthetics. Historic preservation can be a tool to promote sustainable development. The emerging scientific research on embodied energy and life-cycle analysis supports this contention. Indeed, the U.S. Green Building Council – which is becoming the national standard for green building – is already incorporating historic preservation metrics into its newest LEED rating systems. On a national level, historic preservation is being recognized as a sustainable building practice.

Similarly, the District of Columbia should fully embrace historic preservation as an integral piece of the city's drive for sustainable development. Historic preservation need not be something to "consider" as the city seeks to become more sustainable. To the contrary, investing in historic buildings and neighborhoods is inherently sustainable because it takes advantage of the city's existing infrastructure. Moreover, the city gets a two-for-one deal. That is, investing in the city's historic buildings and neighborhoods is environmentally sound, and at the same time helps preserve and revitalize what makes Washington, DC unique. Simply put, in its push for a sustainable future, the District's past is one of its most important assets.