

SUSTAINABILITY IN HISTORIC DISTRICTS: HOW HISTORIC PRESERVATION CAN HELP WASHINGTON REACH ITS GOALS

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Sustainability can no longer remain simply a “concern.” It is much more than a complex scientific theory and is certainly not something that can be dealt with in the future. Climate change continues to warm our planet, cause severe weather, and damage homes and ecosystems.¹ This next decade is

1. Press Release, General Assembly, Only 11 Years Left to Prevent Irreversible Damage from Climate Change, Speakers Warn during General Assembly High Level Meeting: Ambition, Urgency Needed to Address Global Emergency, Secretary-General Says, U.N. Press Release GA/12131 (March 28, 2019).

crucial for repairing some of the damage that has been done.² Sustainable buildings can help us take a step in the right direction.

Globally, urban populations are rising.³ Cities are home to hundreds of millions of residents—the combined populations of the world’s 50 largest cities surpass every country on the planet besides China and India.⁴ Cities create large amounts of pollution due to their density and productive economies; higher population numbers also mean that cities have a larger stake in climate change mitigation than less populated areas.⁵ Pollution in cities is more concentrated, which in turn harms more people. Since cities have such a broad impact on global climate, reducing the carbon footprint of large cities is a crucial step in combatting climate change in the coming years.

The United States as a whole spends an ever-increasing amount on new construction—with over \$1.5 billion as the last measured monthly cost.⁶ Green building considerations are also becoming more developer-friendly. Rating systems such as Leadership in Energy and Environmental Design (LEED) provide structured point categories, levels, and expertise in areas that project teams can focus on to build more sustainably.⁷

Although programs like LEED are not entirely new, they have gained increased traction. More companies, universities, and organizations are seeking out greener facilities to call home.⁸ The increase in prestige and desirability that green buildings have is certainly a positive step, but there is much more to be done.

As LEED, and sustainable building more generally, gains traction,⁹ developers have increasingly taken on more responsibility for the changing climate.¹⁰ Setting a building up to use less water, less energy, and more renewable materials can have a profound impact.¹¹ This is particularly

2. *Id.*

3. Dan Hoornweg, *Cities and Climate Change: An Urgent Agenda*, in SUSTAINABLE LOW-CARBON CITY DEVELOPMENT IN CHINA 3, 5 (Axel Baeumler, Ede Ijjasz-Vasquez, Shomik Mehdiratta eds., The World Bank 2012).

4. *Id.* at 4. Table 1.1 puts the world’s 50 largest cities at a total combined population of 500 million residents. *Id.*

5. *Id.* at 6.

6. U.S. CENSUS BUREAU, MONTHLY CONSTRUCTION SPENDING, SEPTEMBER 2022 (Nov. 1, 2022).

7. *LEED Rating System*, U.S. GREEN BLDG. COUNCIL, <https://www.usgbc.org/leed> (last visited Oct. 26, 2021).

8. Pres. Green Lab, *The Greenest Building: Quantifying the Environmental Value of Building Reuse*, NAT’L TR. FOR HIST. PRES. 18-19 (2011), <https://forum.savingplaces.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=5119e24d-ae4c-3402-7c8e-38a11a4fca12&forceDialog=0>.

9. *Id.* at 13.

10. THOMAS E. GLAVINICH, CONTRACTOR’S GUIDE TO GREEN BUILDING CONSTRUCTION xx (2008).

11. *Id.*

relevant for new construction but can also apply to existing buildings; any reduction in pollution or energy consumption can positively affect a city's overall climate impact.

Washington, DC (DC or the City) has taken climate change seriously, acknowledging the planet's current state and exploring dozens of options for building a more sustainable city.¹² In recent years, DC has implemented the Sustainable DC 2.0 Plan (the Plan). In creating the Plan, the City incorporated input from the public in an extensive planning process.¹³ Community “pop-ups” were set up to get local feedback.¹⁴ The City also consulted with working groups formed for generating feedback on the Plan, hired a consulting firm to ensure “ambitious yet achievable” targets, and released drafts for additional community comments.¹⁵

The end result is a plan that lays out both short- and long-term goals for not only expanding green building, but also more sustainable practices in food, transportation, and more.¹⁶ The Plan contains highly ambitious goals. DC has taken key steps towards fully implementing the full Sustainable DC 2.0 Plan; however, the latest data shows the City still has some progress to make.¹⁷ To reach its goal of becoming the most livable and sustainable city in the nation, what additional steps can DC take?

This article will argue that historic preservation is the perfect candidate to begin filling that gap. Sometimes, “the greenest building is one that is already built.”¹⁸ For example, constructing a brand new more “energy efficient” building may have a greater climate impact (especially in the short-term during construction) than a lightly renovated or existing building utilizing an average (or below average) amount of energy.¹⁹

When new construction is set to occur, it is crucial that—despite being built in a historic district—the building's climate impact is a larger part of the discussion. The aesthetics of historic districts may constrain a building to

12. See DEPT. OF ENERGY & ENV'T, SUSTAINABLE D.C.: SUSTAINABLE DC 2.0 PLAN (2018), https://sustainable.dc.gov/sites/default/files/dc/sites/sustainable/page_content/attachments/sdc%202.0%20Edits%20V5_web_0.pdf (outlining different sustainability factors that DC should use in their city planning).

13. *Id.* at 11.

14. *Id.* at 14.

15. *Id.* at 15.

16. *Id.* at 6.

17. DEP'T OF ENERGY & ENV'T, SUSTAINABLE D.C. 2.0 PROGRESS REPORT 2021 (2021).

18. Carl Elefante, *The Greenest Building Is . . . One That is Already Built*, 27 FORUM J. 1 (2012) 1, 62 (2012).

19. PRES. GREEN LAB, THE GREENEST BUILDING: QUANTIFYING THE ENVIRONMENTAL VALUE OF BUILDING REUSE, 18–19 (2011), <https://forum.savingplaces.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=5119e24d-ae4c-3402-7c8e-38a11a4fca12&forceDialog=0>.

maintain the neighborhood character.²⁰ Along with this, however, should come an analysis of how to comply with those aesthetics while still constructing a building that will have as little climate impact as reasonably possible, both in the short- and long-term.

The DC Historic Preservation Office (HPO) should expand its compatibility analysis for new construction in a historic district to include sustainability. Typically, this analysis looks at whether a potential new building will be “compatible” with the rest of the district. Adding sustainability to the list of compatibility criteria, which as it currently stands is mainly concerned with aesthetics, could add a new layer to city-wide efforts for preservation. Sustainability could serve as a final step to consider the longevity of the neighborhood and ensure that the building will minimally contribute to climate change pressures over time, not only preserving a historic district’s character and charm, but also helping to ensure that the City—and the planet—is also preserved and protected. The City itself contains 70 historic districts, meaning there is ample opportunity to utilize the power that the HPO wields over new construction in DC.²¹

The most commonly referenced definition of sustainability derives from the United Nations, who defines sustainability as: “meeting the needs of the present without compromising the ability of future generations to meet their own needs.”²² Additionally, the American Society of Testing and Materials defines Green Building as: “a building that provides the specified building performance requirements while minimizing disturbance to and improving the functioning of local, regional, and global ecosystems both during and after its construction and specified service life.”²³ Overall, sustainability and green building should focus on increasing the efficiency of buildings while reducing pollution and harm both to the surrounding area and future generations. Although these definitions certainly align with DC’s current sustainability goals, it will be more helpful to narrow the definition to better highlight historic preservation’s role in the climate change discussion.

This article defines sustainability as DC’s ability to achieve the sustainability goals outlined in the relevant construction-related sections of the Sustainable DC 2.0 Plan. These sections include energy (focusing on reducing energy consumption) and built environment (focusing on an overall

20. D.C. OFF. OF PLAN., NEW CONSTRUCTION IN HISTORIC DISTRICTS, https://planning.dc.gov/sites/default/files/dc/sites/op/publication/attachments/DC_New_Construction_SW.pdf.

21. *DC Historic Districts*, D.C. OFF. OF PLAN. (last visited Nov. 15, 2022), <https://planning.dc.gov/page/dc-historic-districts>.

22. *Sustainability*, UNITED NATIONS, <https://www.un.org/en/academic-impact/sustainability> (last visited Nov. 15, 2022).

23. GLAVINICH, *supra* note 10, at 2–3.

more accessible and efficient community).²⁴ These sections also provide explicit guidelines for how and where additional sustainable building measures can step up to fill the City's needs.²⁵

The HPO engages in a true balancing act—they must prioritize preservation of some of the City's oldest and most revered sites while juggling exterior social and economic pressures. There are also general city building codes and zoning ordinances at play, making matters even more complex.²⁶ The HPO has provided guidance on retrofitting historic buildings to increase sustainability but has not provided such sustainability-related guidance for new construction.²⁷ By incorporating sustainability into a historic district's pre-construction compatibility considerations, the HPO can build a much-needed bridge between its current guidance, DC building code, and the City's admirable goals to fight climate change.

First, this article will provide background information on the Sustainable DC 2.0 Plan, along with key provisions of DC historic preservation law, HPO sustainable building guidance, and the general DC building code. This article will then discuss how historic preservation fits into DC's sustainability equation. Finally, this article will outline what incorporating sustainability into the HPO's compatibility analysis would look like in practice and how such a plan would further DC's own sustainability goals.

I. SUSTAINABLE DC 2.0 PLAN

The Sustainable DC 2.0 Plan (the Plan) reflects the City government's goals to make DC an even more sustainable place to live. The new strategies, rooted in the original Plan but expanded in 2018, encompass an array of goals and the mechanisms for achieving them.²⁸ The Plan is very broad. It places sustainability in the spotlight but acknowledges the importance of incorporating other city-wide concerns.²⁹ The Plan emphasizes balance, discussing how “[s]ustainability is about balancing the environmental, economic, and social needs of the District of Columbia today as well as the needs of the next generation, and the one after that.”³⁰ The Plan also stresses

24. SUSTAINABLE D.C. 2.0 PLAN, *supra* note 12, at 75.

25. *Id.* at 32.

26. D.C. DEP'T OF BLDGS., 2017 DISTRICT OF COLUMBIA BUILDING Code 1 (2020), https://dob.dc.gov/sites/default/files/dc/sites/dob/publication/attachments/2017%20District%20of%20Columbia%20Building%20Code_Part%201.pdf.

27. DC HISTORIC PRES. REV. BD., SUSTAINABILITY GUIDE FOR OLDER AND HISTORIC BUILDINGS 2 (2019).

28. *See* SUSTAINABLE D.C. 2.0 PLAN, *supra* note 12, at 6 (discussing a summary of the goals that the Plan promotes).

29. *See generally id.* (explaining how environmental events can impose health threats to D.C. residents).

30. *Id.* at 3.

inclusivity: highlighting the importance of promoting sustainability to all, not just in certain areas of DC.³¹

The Plan is organized into 13 topics, or categories, within which the City intends to improve sustainability practices.³² These topics include: governance, equity, food, health, climate, economy, education, nature, transportation, waste, water, energy, and built environment.³³ Each topic is also split into goals, targets, and actions.³⁴ Goals encompass “big picture” ambitions. Targets act as the Plan’s quantifiable measures to track progress towards these goals. Finally, actions are concrete steps taken to reach each target.³⁵

The topics within Sustainable DC 2.0 that are most relevant to the relationship between historic preservation and sustainability are Built Environment and Energy. With buildings making up 75% of the City’s energy consumption, the Plan is intended to make the Built Environment—the City’s “human-made” environment—more “sustainable, equitable, and resilient to the harmful effects of the changing climate.”³⁶ The Energy topic is more technical, incorporating more renewable energy sources and financing “energy efficiency and clean energy upgrades” in the City’s buildings.³⁷

The Plan also brings in multiple agencies, expanding the scope and therefore the power of the Plan to make an impact in the City.³⁸ Certain agencies, including DC’s Department of Energy & Environment and the DC Department of Transportation, will take the lead on a target. They will bring in other agencies as necessary to assist in the work of reaching their goals.³⁹

Finally, the Plan brings six “overall themes” to the forefront.⁴⁰ The themes are intended to reflect community input and the “guiding principles” in the development of the Plan.⁴¹ The themes are incorporated into every single goal, target, and action outlined throughout the document. These themes include the following:

1. *Better incorporate accessibility*: This theme includes the hope for increased accessibility in all city-wide sustainability

31. *Id.*

32. *Id.* at 4.

33. *Id.* at 6.

34. *Id.*

35. *Id.* at 4.

36. *Id.* at 31.

37. *Id.* at 70.

38. *Id.* at 5.

39. *Id.*

40. *Id.* at 7.

41. *Id.*

planning. Accessibility is defined as both physical accessibility and accessibility to all races, ages, and genders.⁴²

2. *Think regionally; track locally*: The Plan recognizes that sustainability is typically not a hyper-localized issue. Rather, looking regionally at air and water quality, food systems, and transportation can help create a deeper understanding of the effects of climate change during the planning process. However, this theme also pushes for more detailed local tracking of these same metrics, thus enabling the City to better adapt and respond to changes not just on the City level, but on a more fine-tuned, neighborhood level.⁴³
3. *Increase quantitative rigor*: This theme encourages rigorous collection and analysis of environmental facts and data.⁴⁴ Such data is crucial in forming a deeper understanding of the City's progress.
4. *Focus on equity*: This is the most important theme, as the Plan labels it the "leading principle of Sustainable DC 2.0."⁴⁵ The Plan points out that although equity is sometimes difficult to weave into the sustainability discussion, it must be incorporated into DC's mission.⁴⁶
5. *Use community priorities as foundation*: Community outreach played a large role in forming Sustainable DC 2.0. Thus, it is crucial to consider community-wide priorities in all aspects of sustainability development.
6. *Align with other District plans*: DC values planning to further many of the City's goals outside of sustainability. Consequently, there is some overlap between the topics discussed in the Plan and other DC planning documents. Thus, the Plan will work to build on and align with these other tools.⁴⁷

42. *Id.*

43. *Id.*

44. *Id.*

45. *Id.*

46. *Id.*

47. *Id.*

These themes communicate just how broad the sustainability discussion can be. The tools that can help achieve sustainability goals are equally broad. Historic preservation, specifically the HPO's compatibility analysis, is a logical next step. Historic preservation shares a common goal with sustainability—both movements intend to maintain and protect as much as possible for future generations, but within reasonable and achievable measures. If the City wishes to check off more goals and targets from its list, especially in the Built Environment and Energy categories, historic preservation should be a part of the discussion.

II. SUSTAINABLE DC 2.0 PROGRESS REPORT (ARE DC'S GOALS BEING MET?)

To better understand where historic preservation can help fulfill the City's sustainability goals, it is important to turn to the Sustainable DC 2.0 2021 Progress Report (Report).⁴⁸ The Report outlines, both quantitatively and qualitatively, how far along the City is in achieving each goal. Just as the Plan is broken into topics, so is the Report.

The Built Environment section focuses on the City's steps towards: an inclusionary zoning plan; an eviction and utility cut-off moratorium; and community renovations.⁴⁹ There are few mentions of quantitative decreases in waste or emissions, or improved water and air quality. The Plan does mention the kick-off of the City's Building Innovation Hub, which is supposed to work towards increasing energy efficiency.⁵⁰ Notably, however, this disproportionate emphasis on tenant protection is probably due to the COVID-19 pandemic taking priority in 2020–21. The City likely needed to pour more resources into rebuilding after the pandemic, and other sustainability projects (understandably) might have been pushed lower on the list of priorities. The City has also attributed this lag to the district's general growth over time, bringing in new residents, and, as a result, new sources of pollution.⁵¹

The Report's Energy section appears more promising. With a similar equity theme, this section provides updates on general energy efficiency. The energy section further highlights increased efforts to bring more sustainable energy options to low-income families.⁵² Most importantly, the Report shows

48. D.C. 2.0 PROGRESS REPORT 2021, *supra* note 17, at 12.

49. *Id.* at 6.

50. *Id.*

51. DEP'T OF ENERGY & ENV'T, *Carbon Neutrality FAQ* (last visited Nov. 20, 2022), https://doee.dc.gov/sites/default/files/dc/sites/ddoe/service_content/attachments/Carbon%20Neutrality%20FAQ_0.pdf.

52. D.C. 2.0 PROGRESS REPORT 2021, *supra* note 17, at 8.

the City's progress toward obtaining 50% of its energy from renewable sources.⁵³ In 2012, 2.22% of DC's energy was renewable, and the Report shows that number is now, in 2021, 7.25%.⁵⁴ There are also updates on additional solar panels and electric vehicle charging stations throughout the City.⁵⁵

Again, there is still more progress to be made. DC's sustainability movement may need an extra push, especially emerging from a year of lockdown and virtual work.

III. DC CODE AND DC BUILDING CODE

The HPO also operates under the regular DC Code and DC building code. DC Code Title 6 Chapter 11 provides the guiding principles for historic preservation in the District. Section 6-1101 outlines the statute's purposes, which includes:

- (2) Safeguard the city's historic, aesthetic and cultural heritage, as embodied and reflected in such landmarks and districts;
- (3) Foster civic pride in the accomplishments of the past;
- (4) Protect and enhance the city's attraction to visitors and the support and stimulus to the economy thereby provided; and
- (5) Promote the use of landmarks and historic districts for the education, pleasure, and welfare of the people of the District of Columbia.⁵⁶

As well as,

- (1) With respect to properties in historic districts:
 - (A) To retain and enhance those properties which contribute to the character of the historic district and to encourage their adaptation for current use;
 - (B) To assure that alterations of existing structures are compatible with the character of the historic district.⁵⁷

The language of the statute—particularly the use of the phrases “adaptation for current use,” “education, pleasure, and welfare,” and “compatible”—demonstrates the potential to incorporate sustainability

53. *Id.*

54. *Id.*

55. *Id.*

56. D.C. Code § 6-1101(a)(2)–(5) (2011).

57. D.C. Code § 6-1101(b)(1)(A)–(B) (2011).

factors in more historic preservation analyses. Climate change is an ever-growing discussion, and historic preservation must reflect that discussion to remain compatible and adaptable within the City. Moreover, it must reflect that discussion to account for the public welfare. In addition, the charge to encourage property adaptation for “current use” suggests that agencies should consider how changes over time may need to shift past practices.

Fighting climate change is a highly prevalent issue worldwide, but these discussions are also of particular importance in DC. The City has increasingly prioritized sustainability, taking such steps as the Sustainable DC 2.0 Plan. Along with this step, multiple agencies are getting involved in the discussion.

The City has expanded its reach and acknowledged how the overlap between its agencies can be advantageous to fight climate change. For example, collaborating with DC’s Department of Transportation on a project for more environmentally-friendly food and agriculture practices improves not just the sustainability of the food and farming itself but also the shipping of the food. The City has also publicized its goal of constructing more net-zero energy buildings, further recognizing the importance of reducing greenhouse gas emissions in DC.⁵⁸ The Department of Energy & Environment has also identified key sticking points and hurdles that tend to stand in the way of the City achieving its sustainability goals and how to overcome them.⁵⁹ One of those sticking points is a general reluctance among developers and the lack of market incentive to build “greener.”⁶⁰

In addition to the DC Code, the City has a general building code that the HPO must consider. The building code lays out construction and alteration requirements for residential and commercial buildings throughout the District.⁶¹ Section 101.10 outlines the City’s Energy Conservation Code.⁶² In the alternative, buildings also have the option to comply with the Green Building Act, which places LEED certification requirements on both residential and non-residential projects.⁶³

58. *Green Building in the District*, DEP’T OF ENERGY & ENV’T, <https://doee.dc.gov/node/1506686>.

59. *Carbon Free DC by 2050- New Constr. & Embodied Carbon Discussion*, DEP’T OF ENERGY & ENV’T (Sept. 23, 2020), https://doee.dc.gov/sites/default/files/dc/sites/d DOE/service_content/attachments/New%20Construction%20and%20Embodied%20Carbon%20Discussion%20Notes_0.pdf.

60. *Id.*

61. D.C. DEP’T OF BLDGS., *supra* note 26, at Part 1.

62. *Id.* at 5.

63. Green Building Act of 2006, D.C. CODE § 6-1451 (2006); *see also Green Building Act of 2006*, DEP’T ENERGY & ENV’T, <http://doee.dc.gov/node/7882> (Dec. 17, 2021) (providing a graphic aid to understanding the Green Building Act of 2006).

All residential and commercial buildings must comply with these energy efficiency standards. However, the building code mentions an interesting exception—historic buildings.⁶⁴ Specifically, “[p]rovisions of the Energy Conservation Code relating to the construction, repair, alteration, restoration and movement of structures, and change of occupancy shall not be mandatory for historic buildings”; unless there is proof signed by the owner, a design professional, or the HPO “demonstrating that compliance with that provision would threaten, degrade or destroy the historic form, fabric or function of the building.”⁶⁵

The building code’s historic buildings exception represents a hole that the HPO can fill. The language of the building code demonstrates a reluctance to step on the toes of the HPO and other historic preservationists. The building code acknowledges the expertise of the HPO and preservationists due to their immersion in a highly complex and detailed field. Thus, the historic preservation community should use this deference to contribute to the City’s sustainability where possible. The HPO should look to the long-term, not just at maintaining the character and aesthetics of historic buildings but also the cities and ecosystems that the buildings exist within. Notably, preservationists in general are not entirely opposed to more sustainable buildings. This is particularly evidenced by the HPO’s guidance on sustainability in historic buildings, as discussed below.

IV. HPO GUIDELINES ON DC CODE AND SUSTAINABILITY IN HISTORIC BUILDINGS

The HPO has also released guidelines for retrofitting historic buildings with both the DC code and sustainability in mind.⁶⁶ First, the guidelines outline the HPO’s analysis of a new building’s compatibility within a historic district.⁶⁷ This analysis requires a new building’s design to be compatible with surrounding structures, including: setback, orientation, scale, proportion, rhythm, massing, height, materials, color, roof shape, details and ornamentation, and landscape features.⁶⁸

The HPO is also very clear, however, that compatibility is not merely an analysis of a building’s design features in a vacuum or its aesthetics as compared to surrounding buildings. Rather, there should also be an “analysis of how these design principles are used in the neighborhood and how they

64. D.C. Mun. Regs. tit. 12, § 101.10.3.1(2) (2017).

65. D.C. DEP’T OF BLDGS., *supra* note 26, at 6.

66. GOV’T OF D.C.: OFF. OF PLAN., DISTRICT OF COLUMBIA HISTORIC PRESERVATION GUIDELINES: NEW CONSTRUCTION IN HISTORIC DISTRICTS, <https://planning.dc.gov/publication/new-construction-historic-districts>; DC OFF. OF PLAN., *supra* note 20.

67. GOV’T OF D.C.: OFF. OF PLAN., *supra* note 66, at 1.

68. *Id.*

can be interpreted using today's materials and construction techniques.”⁶⁹ This language, similar to the DC Code's historic preservation language, suggests an inclination towards flexibility in projects to meet the City's needs. Particularly, in order to truly use “today’s materials and construction techniques,” architects and developers must be able to adapt to modern building efficiency standards.

Architects are still able to seamlessly integrate new building practices in a way that maintains compatibility with older buildings.⁷⁰ So, a historic district’s character can be maintained while still branching out into more efficient and sustainable practices. This adjustment could not have occurred overnight, and instead has evolved as the City’s building code has grown and changed. This shows that historic preservation practices can be flexible enough to incorporate cleaner and greener buildings. Thus, it is still possible to comply with the HPO’s guidelines while incorporating more of DC’s sustainability goals.

Next, the HPO gets more specific, outlining sustainability best practices for historic buildings in a separate guidance document.⁷¹ This document does not discuss new construction. Instead, it highlights its views on retrofitting current historic buildings while still maintaining their individual integrity and the compatibility of the whole district. The HPO guidance document recommends considering both the visibility of the retrofit from the street and the level of significance the property holds. This document also looks at: how compatible the addition is with the building itself, the quality and design of the materials used, whether the addition is temporary or permanent, and whether the project helps to achieve a reasonable balance within the community.⁷²

The final criteria of achieving reasonable balance is particularly relevant here. Even though the HPO suggests considering many classic design elements, it also recommends weighing those elements against community needs. For instance, a certain alteration may not be as compatible as the HPO would prefer, but when weighed in balance, the alteration might be the only reasonable and cost-effective way to execute a highly necessary project. The HPO states, “[a]dapting old buildings requires a thoughtful consideration of practical needs along with the environmental and civic benefits of protecting architectural and historical characteristics valued by the community.”⁷³

69. *Id.*

70. AMY WEINSTEIN, LOOKING AT HISTORIC PRESERVATION THROUGH AN ARCHITECT’S EYES HISTORIC PRESERVATION LAW (2021) (discussing adjustment that can be made to building with new modern-day sustainable building requirements in place).

71. D.C. HISTORIC PRES. REV. BD., *supra* note 27, at 2.

72. *Id.*

73. *Id.*

As discussed in prior sections, a very similar trend emerges here: there is room for sustainability in this analysis. The HPO has used language like “adapting” and “balance”; even though this guidance is geared towards existing buildings, the logic could easily be extended to compatibility of new construction as well. Not only is there a hole in the historic preservation sections of the City’s building code, the same hole is also missing in the HPO’s sustainability guidance. The HPO has guidelines for sustainability in existing buildings, but the HPO’s guidelines for new construction do not mention sustainability.

By adding sustainability into the existing criteria for the compatibility analysis, the HPO can do its part under the purpose of the DC Code on historic preservation, and to round out their already existent sustainability analyses in other areas. This will also help the City fulfill its climate change goals, which have become exponentially more clear and accessible now that they are laid out in the Sustainable DC 2.0 Plan.

DC has very ambitious sustainability goals, and historic preservation can do even more to help push for a more sustainable DC by incorporating sustainability into its compatibility analysis.

V. WHY DO SUSTAINABILITY CONSIDERATIONS FIT IN NEW CONSTRUCTION COMPATIBILITY ANALYSIS?

DC’s historic preservation regulations and guidance show that historic preservation furthers the City’s sustainability goals. Incorporating sustainability into the HPO’s compatibility analysis for new construction is not just a win for Sustainable DC 2.0, but also for DC overall. Moreover incorporating sustainability will not disrupt current historic preservation practices and can further preservation goals.

First, by its very nature, the compatibility analysis should include modern-day concerns like sustainability. Restricting the compatibility analysis to merely an aesthetic design conversation ignores how much DC is constantly growing and changing.

Climate change has been raised as more of a concern in recent decades, alongside increased discussion of equity and accessibility in the City. To not incorporate such a crucial element of life in DC as climate change impedes historic preservation from reaching its full potential. Incorporating sustainability will help the City and can also maximize historic preservation’s impact.

By creating more overlap, environmentalist individuals and organizations that may not have been involved in historic preservation efforts in the past may now recognize the importance of investing in the cause. The HPO and other preservation groups have a wonderful leadership opportunity

to bridge that gap and demonstrate the full scope of historic preservation's benefits.

Second, in many instances, historic preservation and sustainability go hand-in-hand. The HPO's guidance for sustainability in existing historic buildings points out that "buildings are the primary source of energy use" in the District and "success at reducing emissions depends on reducing its energy use."⁷⁴ The guidance also discusses how energy efficiency updates are not only beneficial for those living in or using the building the updates are also a key step in preserving the City's older buildings. For example, the HPO recommends using "conscientious maintenance" to maintain "the unique character of buildings and neighborhoods."⁷⁵ Thus, sustainability can be incorporated to benefit the community. In fact, such incorporation is unlikely to disrupt preservation in most instances. The HPO describes the relationship between historic preservation and sustainability as having quite a bit of overlap:

There is a common misconception that the principles of sustainability and green building design are at odds with those of historic preservation. Quite the opposite is true: historic buildings offer effective solutions to save energy . . . Additionally, building systems and components, like HVAC or lighting, that do not contribute to the historic character of a building can be updated without triggering historic review at all. Maintaining existing buildings and improving their energy performance will help the District meet its sustainability goals as the District, like any major city, cannot build its way out of these impacts.⁷⁶

This demonstrates the flexibility that exists in both the historic preservation and the sustainability analysis—flexibility that should also apply to new construction.

VI. HOW WOULD INCORPORATION OF SUSTAINABILITY INTO THE COMPATIBILITY ANALYSIS WORK?

This article has already established that historic preservation is an ideal vehicle for additional sustainability efforts within DC. The question then arises: where and how would this occur in practice?

74. *Id.* at 3.

75. *Id.*

76. *Id.* at 5.

Since the HPO has guidelines for retrofitting current buildings, the next logical place to expand sustainability considerations would be as an additional criterion to the new construction compatibility analysis. Although sustainability appears to be a good fit within the HPO's compatibility analysis, there are certainly some areas of conflict. For example, some aesthetic concerns described in the current compatibility analysis, such as windows and roofing, may bump up against sustainability goals. A window may need to be made of a certain type of glass to be as energy efficient as possible. However, this glass may not be the most compatible option for the aesthetics of the buildings in a certain historic district. Here, there is the potential for conflict between sustainability and preservationist goals. Should this completely bar sustainability considerations in such instances? Is there a remedy or best practice when these situations arise?

Luckily, the HPO seems to have some wiggle room to balance both sides. As discussed previously, the sustainability guidelines for retrofitting existing historic buildings include consideration of a "reasonable balance" within the community.⁷⁷ The compatibility analysis for new construction may be a good place to begin incorporating that balance. The compatibility analysis already includes aesthetic concerns but has some room for sustainability concerns. One possibility for approaching this balancing test is to group all the current aesthetic criteria together and weigh them against sustainability. This would mean that every single existing compatibility criterion (setback, orientation, scale, proportion, rhythm, massing, height, materials, color, roof shape, details and ornamentation, landscape features) would be weighed equally as a whole against sustainability concerns (energy efficiency and built environment under the Plan).

One potential issue with this suggestion is that a balancing test may give unequal weight to sustainability concerns, as aesthetics are considered all together rather than as individual components of the building. However, the opposite effect may occur if each aesthetic piece (windows, front door, setback, materials, etc.) is considered on its own against sustainability. In this case, aesthetics might be given too much weight in the equation. Any one design concern has the potential to completely "knock out" more sustainable building components if they conflict with the building's character or aesthetic compatibility.

On the other hand, if the principal concern is incorporating sustainability in a way that is as minimally intrusive on existing preservation guidance as possible, it may make sense to go with the one-by-one design element approach. This would mean that any conflict between compatibility and sustainability would be overridden in compatibility's favor. Sustainability

77. *Id.* at 2.

would have to prevail over every single compatibility design element individually, making it more likely that sustainability would rarely ever win out at the end of the analysis. On the other hand, if the goal is for sustainability to have a lasting impact on new construction in historic districts then a bigger push may be helpful in furthering that goal, as well as giving sustainability more weight in HPO's balancing equation. So, weighing sustainability against all aesthetic concerns together can provide the push the City needs to make sustainability more of a priority.

Another important consideration is that preservationists might prefer an unequal weighting system. To them, aesthetic concerns might warrant more weight than sustainability. Along a similar vein, environmentalists may want a compromise—giving sustainability and aesthetics equal weight. Weighing all design elements equally may not be the logical choice for all historic districts. For example, one district may be known for its landscaping where height and scale may not matter as much. In these cases, beginning the analysis by balancing the importance of specific signature design elements in a particular historic district against sustainability may make more sense. This option may allow for more flexibility in the analysis, as the different design elements of compatibility can have individual community-specific weights rather than combining them all equally.

An even less intrusive way to incorporate sustainability into the compatibility analysis for new construction may be to consider sustainability in a separate step in the process. For example, the HPO could first consider its traditional aesthetic compatibility factors. If the project meets those criteria and matches the character of the district, then a consideration of climate change impacts could come in afterwards. Architects and developers would have the initial burden to demonstrate that additional energy-efficient elements of the building contribute to the character of the historic district rather than detract from the project's compatibility.

There could be a “more compatible” option, given that a historic district is likely composed of older buildings. So, a new building designed to match those around it would be more compatible if it was built in a similar aesthetic as the older buildings. Although this may seem ideal from a historic preservation standpoint, such design may prove harmful to the preservationist mission. One important element of the HPO's discussion of new construction is that while compatibility is important, it is equally as important to not create a “false sense of history.”⁷⁸

78. GOV'T OF D.C.: OFF. OF PLAN., *supra* note 66, at 2.

“By relating to the existing buildings and the environment, but being of its own time, a new building shows a district's evolution just as the existing buildings show its past.”⁷⁹

Sustainability has certainly been a key component of the city's evolution. By placing sustainability dead last in the order of consideration and focusing on making buildings as aesthetically compatible as possible, new construction will not reflect such evolution if newer buildings included more weight given to sustainability. Therefore, it may better serve the goals of historic preservation to give sustainability more weight than the one-by-one approach provides. Considering sustainability against aesthetics as a whole gives sustainability more weight.

Finally, viewing sustainability as various factors is important to consider, while the HPO lays out elements for new construction compatibility. DC's city-wide sustainability goals are not an on-off switch or a line in the sand. Every step towards more sustainable buildings, regardless of how small, has an impact.

Similarly, one “green” addition to a building that improves its energy efficiency does not necessarily make it sustainable. Often, there are additional steps that can be taken to further DC's goals. Instead, sustainability within the HPO's compatibility analysis should be viewed as a spectrum. This could be achieved by looking deeper into the Plan's Built Environment (of which the Sustainable DC 2.0 Plan prioritizes efficiency, innovation, and equity) and Energy Efficiency categories.

The following section outlines a feasible approach to the incorporation of sustainability into HPO's compatibility analysis for new construction.

A. The Most Realistic Implementation Strategy—Finding a Middle Ground

The best approach would be to reach a middle ground between the one-by-one approach and group all the elements together in one. This way, the compatibility analysis can remain concerned with aesthetics in its majority but can also give proper weight to sustainability considerations.

First, the HPO should select which design elements are most important to that historic district. The balancing would thus only be occurring within the list of traditional compatibility design elements. None of the other elements would need to be removed or discounted necessarily, but certain aesthetic components can be prioritized through this analysis. This could also be a space for community input and can allow the analysis to have a more localized focus.

79. *Id.*

Next, sustainability should be factored in. After the decision of which aesthetic elements would make a building compatible with the historic district, it will be easier to balance them against sustainability factors. Similar to the compatibility elements, certain sustainable components of a building may be realistic depending on the design restrictions presented by the district. So, along the sustainability spectrum, new construction in one district might be able to accommodate more energy-efficient features than new construction in another district due to key aesthetic components that conflict with green additions in the building's design.

True balancing comes in where there is conflict. In some cases where a certain design element is necessary, and that element conflicts with a certain sustainability addition, the design element may override. In these instances, the architect or developer can consider alternative options for green building. There is certainly flexibility here.

Looking at LEED certification, for example, buildings can earn points towards certification from many different categories. These include: water efficiency, air efficiency, open space, materials, energy metering, energy consumption, and more.⁸⁰ Within each category, LEED presents varying action items (concrete steps that a project team can engage in) that add up to a greener building. If a developer building in a historic district seeks LEED certification, but there is a conflict between an intended point-gaining design element and a historic requirement, there are plenty of workarounds. The building plan can be altered to gain those desired points from a different category, thus satisfying both sustainability and preservation goals.

Similarly, there is flexibility even where historic preservation and sustainability efforts may conflict. For example, a building's analysis can compare the categories of design and green building components that are most realistic for a particular community. This approach properly balances the importance and urgency of sustainable building with the understanding that historic districts are highly unique. Thus, districts could require different approaches to an in-depth aesthetic compatibility analysis. In turn, communities can accommodate different levels of sustainability and incorporate green building in different ways. This flexible yet straightforward analysis also allows for an ongoing dialogue between preservationists and environmentalists—an important element in fostering increased partnership between historic preservation and sustainability in DC.

80. U.S. GREEN BLDG. COUNCIL, *supra* note 7.

VII. HOW CAN INCORPORATING SUSTAINABILITY HELP FURTHER DC'S GOALS?

Incorporating sustainability into the HPO's compatibility analysis for new construction can be helpful to achieve its energy and built environment goals laid out in the Sustainable DC 2.0 plan. Green building can aid in both climate change mitigation and adaptation as the City transitions.⁸¹

A. Energy Goals

The Plan outlines the City's energy efficiency goals at the individual, neighborhood, and district levels.⁸² Ninety-six percent of the City's emissions come from its energy use.⁸³ Any energy generated from fossil fuels will add to DC's carbon footprint.⁸⁴ The more often fossil fuels are used, the worse the region's air quality becomes.⁸⁵ Thus, DC is faced with multiple challenges: reducing energy costs, reducing overall energy consumption, and incorporating more renewable energy sources including wind and solar.⁸⁶ The Plan also notes that all goals need to be met despite the City's continuing population and economic growth.⁸⁷

The Energy Section of the Plan includes three targets: reduce per capita energy use by 50% by the year 2032; increase DC's renewable energy use to 50% by 2032; and have 100% of DC residents living within walking distance of clean backup power sources in case of an outage.⁸⁸ Although each target contains both short- and long-term goals, the following will focus on the goals most relevant to historic preservation and most served by incorporating sustainability into the HPO's compatibility discussions.

First, the Plan includes monitoring current building performance throughout the City.⁸⁹ This permits the city to collect important data and to plan for how to expand and improve energy efficiency in the future. The expanded scope of data collection will incorporate additional buildings that were not previously included. The historic building exception in the DC Building Code highlights how DC has frequently excluded the energy efficiency equation.⁹⁰ This gap can be filled to the extent that new

81. D.C. 2.0 Progress Report 2021, *supra* note 17, at 12–13.

82. SUSTAINABLE D.C. 2.0 PLAN, *supra* note 12 (recommending actions for DC to take at the individual, neighborhood, and district levels).

83. *Id.* at 70.

84. *Id.*

85. *Id.*

86. *Id.*

87. *Id.*

88. *Id.* at 74–78.

89. *Id.* at 72.

90. D.C. DEP'T OF BLDGS., *supra* note 26, at 6.

construction projects can implement reasonable efficiency tracking standards in their projects housed in historic districts.

Second, the Plan pledges to “[r]eplace all street and public lighting with high efficiency fixtures that protect public health, reduce light pollution, and do not harm wildlife.”⁹¹ Lighting can play a large role in a site’s design and aesthetic, making it a perfect place for historic preservation and sustainability to coexist. For example, in historic districts with threatened or endangered birds, low-impact lighting should be given more weight when balanced against aesthetics. In the alternative, the building team could propose multiple options for bird-safe lighting, and the HPO could select the option that would be most compatible with the City’s aesthetics.

Third, the Plan hopes to “[b]uild and support commercial and residential renewable energy projects sufficient to get at least five percent of citywide electricity from local generation.”⁹² Incorporating sustainability into the HPO compatibility analysis could certainly help with this goal at little or no administrative cost. Simply by adding sustainability into the new construction conversation, the HPO is expressing support for the Plan and for citywide energy efficiency. Considering sustainability is a huge step in the right direction even if there is conflict with aesthetics (which, as discussed above, can be remedied).

Next, the Plan will “[u]se smart meters and smart grid infrastructure to collect data on electricity use.”⁹³ This goal is particularly keyed to historic preservation goals because inclusion of a smart meter is highly unlikely to intrude on a building’s aesthetics. With modern advanced technology, smart meters are no larger than a toaster, and often smaller. Smart meters are crucial in collecting diagnostic information about energy performance and would be helpful in aiding the city’s learning process as it improves its energy infrastructure. Since a principal concern with modern energy technology is that it potentially intrudes on compatibility and aesthetics, using non-intrusive technology wherever possible is essential.

Finally, historic preservation can help in the Plan’s goal to “[r]emove all barriers to modernizing electricity infrastructure to enable the deployment of neighborhood-scale energy systems and distributed energy resources.”⁹⁴ Where there is a hole in DC’s guidance and regulation, there is a barrier to implementing more sustainable practices. Thus, folding sustainability into new construction, like the HPO’s guidance for retrofitting existing buildings, increases access to greener buildings.

91. *Id.* at 75.

92. *Id.* at 76.

93. *Id.* at 78.

94. *Id.* at 79.

B. Built Environment Goals

While the Plan's discussion of a more sustainably built environment certainly concerns energy efficiency, the Plan goes beyond that—emphasizing inclusivity in new sustainable practices. Similar to the energy efficiency targets, the Built Environment Section aims to: develop workforce trainings, develop public-private partnerships, increase efficiency requirements, and continue to adopt the greenest building practices possible.⁹⁵ However, the key theme throughout the section is that “sustainability is not sustainable without inclusivity.”⁹⁶

The simplest way to increase access to clean energy and expand green building practices is to grow the scope of where green building practices are used throughout the city. Especially in a place like DC, where there are so many historic districts spread throughout the city's geography, additional sustainability considerations are even more likely to increase access. With DC's large number of historic districts encompassing many residences and businesses, more people will be able to take advantage of these efficient structures.

These are only some of the ways that deeper incorporation of sustainability into the HPO's compatibility analysis can help further DC's sustainability goals. Most importantly, historic preservation can help ensure this wide range of goals can be met. Since these are merely examples, additional flexibility exists for how the overlap between sustainability and historic preservation can continue to contribute to DC's climate change discussion over time.

CONCLUSION

Overall, in order to help the city of DC continue to fulfill its sustainability goals, the DC HPO should incorporate sustainability into its compatibility analysis for new construction in historic districts. This can be done by making sustainability an additional criterion, or step, within the analysis. Historic preservation already serves as an excellent mechanism for incorporating more sustainable practices into local buildings.

Especially in DC, there is a unique hole in energy efficiency regulation for historic buildings. In addition, there are ways to remedy conflict between aesthetic and sustainability elements. Therefore, the HPO's compatibility analysis should incorporate sustainability, since this is the logical next step for green building in DC.

95. *Id.* at 38–41.

96. *Id.* at 31.