

GREEN BUILDING CITY SURVEY

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INTRODUCTION

While scholars and institutions, such as the U.S. Green Building Council, have introduced or attempted to introduce unifying theories and standards, the actual practice of green building varies state-to-state, city-to-city. Construction—even environmentally-conscious construction—remains largely a local affair, and each region or municipality has its own particular interests and concerns that affect both the manner and magnitude of its green building.

In an attempt to illustrate the variety of local approaches, the *New York University Journal of Legislation & Public Policy* presents a brief survey of the following five cities and one region: Chicago, Long Island, New Orleans, Philadelphia, San Francisco, and Seattle. This survey highlights the challenges and achievements faced by municipalities in implementing green building practices at the local level.

CHICAGO: A MODEL FOR LEGISLATING GREENING BUILDING

Chicago is one of the nation's greenest cities. Much of its success in green building can be attributed to the local government's multi-faceted commitment to eco-friendly development. For instance, all new municipal buildings in Chicago are required to be energy efficient.¹ The city also expedites its building permit process for green construction projects,² awards grants to private developers who com-

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1. *Chicago Mayor Announces All New Public Buildings to be LEED Certified*, GREENBIZ.COM, June 24, 2004, <http://www.greenbiz.com/news/printer.cfm?NewsID=26892>.

2. See *infra* note 12 and accompanying text.

mit to eco-friendly building principles,³ and collaborates with local non-profit organizations to ensure that affordable green housing options are available.⁴ Together, these efforts have been quite effective, and Chicago is likely to benefit from its investment in green building for years to come.

Both the city of Chicago and the state of Illinois have legislation encouraging green building. Illinois Public Act 093-0936 mandates energy efficiency standards for new or newly-renovated commercial buildings across the state.⁵ Chicago, however, has more rigorous requirements for its municipal buildings—since 2004, the city has required all newly-constructed city buildings to be certified according to U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) standards, which focus on energy efficiency and waste reduction.⁶ There are now at least a dozen municipal buildings, including City Hall,⁷ that have “green roofs” with grass and plants designed to “dramatically lower roof temperatures (from 160 degrees on a summer day for a conventional roof to about half

3. See *infra* notes 10 & 11 and accompanying text.

4. Chicago Community Loan Fund, <http://www.cclfchicago.org/> (last visited Nov. 13, 2007).

5. Energy Efficient Commercial Building Act, Pub. Act 093-0936, § 15, 2004 Ill. Legis. Sess. Serv. 3375, 3376 (West) (codified as amended at 20 ILL. COMP. STAT. ANN. § 3125/15 (2007)), available at <http://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=093-0936&print=true&write=>.

6. *Chicago Mayor Announces All New Public Buildings to be LEED Certified*, GREENBIZ.COM, June 24, 2004, <http://www.greenbiz.com/news/printer.cfm?NewsID=26892>. The U.S. Green Building Council sets standards under a system called Leadership in Energy and Environmental Design (LEED) ratings, which is a rating system based on different eco-friendly categories. The amount of points a building earns determines the level of LEED certification it receives, which ranges from LEED-Certified, to Silver, Gold, and Platinum. See USGBC: LEED Rating Systems, <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=222> (last visited Jan. 26, 2008); USGBC, LEED for New Construction, Frequently Asked Questions, <http://www.usgbc.org/ShowFile.aspx?DocumentID=3352> (last visited Jan. 26, 2008). See also Michael Byrne, Note, *Greening Runoff: The Unsolved Nonpoint Source Pollution Problem, and Green Buildings as a Solution*, 11 N.Y.U. J. LEGIS. & PUB. POL'Y XXX, XXX–XXX (2008) (discussing LEED for new construction and its relation to nonpoint sources); Peter A. Nelson, Note, *Measuring From the High Watermark: Defining Baselines for Water Efficiency in Green Buildings*, 11 N.Y.U. J. LEGIS. & PUB. POL'Y XXX, XXX–XXX (2008) (discussing application of LEED to promote water conservation); Bradford Swing, *Project-Based Policy Development: Building the Case for Boston's Green Building Policy*, 11 N.Y.U. J. LEGIS. & PUB. POL'Y XXX, XXX–XXX (2008) (describing LEED standards and how Boston is implementing them).

7. Kevin Roy, *Green Chicago*, ABC7CHICAGO.COM, Aug. 4, 2006, http://abclocal.go.com/wls/story?section=special_coverage&id=4432378.

that) and thus reduce buildings' need for air conditioning."⁸ Chicago also has plans for green renovations in some of its public buildings, including the local libraries.⁹

Chicago also has a number of programs encouraging private-sector builders to "go green." For example, Chicago's city government offers small grants or "density bonuses" to companies that install green roofs in Chicago's central business district¹⁰ and is also in the process of dispensing \$12 million from Commonwealth Edison Company to companies that install solar cells for energy within the city limits.¹¹

Another city policy grants expedited building permits to builders who commit to green construction.¹² The program applies to all commercial buildings in Chicago and prioritizes projects that include green roofs, renewable energy sources, or affordable eco-friendly housing.¹³ Many companies have found the prospect of an accelerated permit enticing, and even chain companies such as Wal-Mart, McDonalds, and Target have recently opened green-roofed stores in and around Chicago.¹⁴

Chicago's city government also offers incentives for non-commercial green building, such as the "Historic Chicago Bungalow Initiative," which provides grants to bungalow owners to restore the houses in an eco-friendly way.¹⁵ This commitment to non-commercial green building, however, is not restricted to historic houses—Chicago's local government would like to make green building a norm rather than a luxury. The city government works regularly with non-

8. Ronald Brownstein, *Local Governments Get Serious About the Environment*, L.A. TIMES, Oct. 1, 2006, at A16.

9. Ed Avis, *Going for the Green*, CRAIN'S CHI. BUS., Sept. 18, 2000, at SR1, available at http://vnweb.hwwilsonweb.com/hww/results/results_single_ftPEs.jhtm.

10. Lisa Chamberlain, *A Roof Garden? It's Much More Than That*, N.Y. TIMES, Aug. 10, 2005, at C8.

11. Avis, *supra* note 9.

12. CHI. DEP'T OF CONSTR. & PERMITS, DCAP GREEN PERMIT PROGRAM ¶ 5, available at http://egov.cityofchicago.org/webportal/COCWebPortal/COC_EDITORIAL/GreenPermitBrochure_1.pdf [hereinafter DCAP GREEN PERMIT PROGRAM].

13. *See id.* at "Green Menu Items."

14. Ronald Brownstein, *Local Governments Get Serious About the Environment*, L.A. TIMES, Oct. 1, 2006, A16; Chamberlain, *supra* note 10.

15. Chicago Bungalow Association: Homes and Neighborhoods, About the HCBI, <http://www.chicagobungalow.org/member/index.shtml> (last visited Nov. 17, 2007). The Chicago bungalows are single family residences of a certain design that were built between 1910 and 1940. There is a Historic Chicago Bungalow Association designed to preserve and restore these residences. *See* Chicago Bungalow Association: Certify Your Bungalow, What is a Chicago Bungalow?, available at <http://www.chicagobungalow.org/member/documents/Whatischicagobungalow.pdf>.

profit groups such as the Chicago Community Loan Fund, which provides financing for development of affordable, eco-friendly structures in the Chicago's lower-income neighborhoods.¹⁶ Some of the city's other programs, such as its permit acceleration program, offer extra incentives for green affordable housing projects.¹⁷

To supplement its financial and legislative initiatives, Chicago has also created programs that educate local builders, engineers, and the public about what "green building" is and how to implement it. The main forum for green building education is Chicago's Center for Green Technology (CCGT),¹⁸ which was built on the site of a former brownfield.¹⁹ The CCGT is itself a model of cutting edge eco-friendly building; it boasts the highest-possible LEED certification and features solar panels, a geothermal heating system, and efficient lighting systems designed to reduce energy costs.²⁰ The Center offers many educational opportunities, including free public seminars, a showcase for green products, and a library of environment-related resources.²¹

Several benefits are likely to result from Chicago's investment in eco-friendly building. First, building owners' utility costs should decrease as buildings become more energy efficient. Some experts estimate that these savings will be quite substantial. For example, one Chicago property specialist states, "For energy retrofits, we typically see a minimum internal rate of return of 15%, and most of them are a lot higher than that, 30% to 50%."²² That is, builders who invest in energy efficient designs should expect to see sizable long-run cost

16. Chicago Community Loan Fund, <http://www.cclfchicago.org/> (last visited Nov. 17, 2007).

17. DCAP GREEN PERMIT PROGRAM, *supra* note 12.

18. City of Chicago, About CCGT, <http://www.cityofchicago.org> (follow "Your Government" hyperlink; follow "City Departments" hyperlink; follow "Environment" hyperlink; follow "Initiatives & Programs" hyperlink; follow "Green Building"; then follow "Chicago Center for Green Technology" hyperlink; then finally follow "About CCGT" hyperlink).

19. *Chicago Center for Green Technology is First Municipal Building to Receive Platinum LEED Rating*, ENVTL. DESIGN + CONSTR. MAG., Jan. 14, 2004, <http://www.edcmag.com/CDA/Archives/c9346f505b697010VgnVCM100000f932a8c0>.

Brownfields are typically areas "the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant," and therefore the federal government provides incentives to encourage companies to buy, cleanup, and restore the land. U.S. E.P.A., Brownfields and Land Revitalization, <http://www.epa.gov/brownfields/> (last visited Jan. 26, 2008).

20. *Id.*; Lev Zynenyach & Tram Hoang Littmann, IBC Engineering, Chicago Center for Green Technology, <http://www.ibcengineering.com/features/ccgt/p3.html> (last visited Nov. 27, 2007).

21. City of Chicago, *supra* note 18.

22. Avis, *supra* note 9 (quoting Frank Frankini, Senior Vice President of Engineering and Construction, Equity Office Properties Trust).

savings that will more than compensate them for the upfront costs of becoming green. Second, green building should help preserve Chicago's natural resources because green construction will focus on renewable materials and on general efficiency, rather than wasting natural resources. Though sustainable building materials today tend to be more expensive than conventional materials, as green construction becomes more common and demand for green building practices increases, the cost of these sustainable materials should decline. Third, green building practices, such as installing rooftop gardens and creating structures that are integrated with nature,²³ are likely to both make the city even more aesthetically pleasing. Other benefits will likely flow more indirectly; for instance, studies have shown that increasing natural light in an office will boost worker productivity,²⁴ while also reducing electricity bills. For these reasons, advocates suggest that people will be drawn to workplaces with green-building.²⁵

LONG ISLAND: A START AT SUBURBAN GREEN BUILDING

Large-scale green building projects in urban areas, such as the Freedom Tower being built at the site of the former World Trade Center in New York City, are often depicted as the face of the green building movement.²⁶ Yet green building need not be an exclusively urban phenomenon; indeed, if eco-friendly construction is to truly take hold as a standard practice, it will need to expand beyond cities and into the suburbs. Considering that in 2000, 52% of U.S. residents lived in the suburbs and 75% of the country's population growth over the last half-century occurred in the suburbs,²⁷ there should be ample opportunity for green development in suburban areas.

Green building efforts in the suburbs have lagged behind urban locales for three primary reasons. First, the organizational infrastructure of the green building movement originated in urban areas.²⁸ Second, the economics of residential home building projects also discourage green building because these projects tend to be on a

23. See *supra* note 13 and accompanying text.

24. Avis, *supra* note 9.

25. See *id.*

26. See, e.g., Robin Pogrebin, *High-Rises That Have Low Impact on Nature*, N.Y. TIMES, Feb. 2, 2006, at E1.

27. Arthur C. Nelson, *Leadership in a New Era*, 71 J. AM. PLANNING ASS'N 393, 394 (2006), available at <http://www.planning.org/japa/pdf/JAPANelson06.pdf>. These numbers have risen considerably since 1950, when only 27% of Americans lived in suburbs. *Id.*

28. Telephone Interview with Peter Carradona, former Chair, Long Island Chapter, U.S. Green Building Council (Sept. 23, 2007).

smaller scale than commercial, industrial, and municipal non-residential building projects and have therefore attracted less legislative attention.²⁹ Finally, green builders must overcome suburbanites' psychological resistance to sustainable development principles; for instance, building in truly environmentally-friendly ways, which may involve integrated public transit systems, is more difficult in the suburbs because having a suburban lifestyle, which may include driving, might have been what drew residents to the area in the first place.³⁰

Despite these difficulties, green building has recently spread outside of cities to non-urban regions such as Long Island, New York. There are three methods through which the green building movement has advanced in Long Island: organization-building, local legislation, and significant green building projects.

First, a variety of local and national organizations have emerged on Long Island in the last few years. Most prominently, the United States Green Building Council (USGBC) established a Long Island Chapter in 2002.³¹ Other regional groups devoted to eco-friendly development include VISION Long Island³² and Sustainable Long Island,³³ two organizations that combine environment-conscious education with advocacy and community-building activities.³⁴

Second, Long Island legislatures have also recently taken up the "green building" cause. Both Suffolk and Nassau Counties, the two counties that comprise Long Island, now require that newly constructed county buildings comply with LEED standards.³⁵ Babylon, a town of over 200,000³⁶ in central Long Island, recently carried green building efforts a step further by requiring *all* newly-constructed commercial, industrial, office, or multiple residence units equal to or

29. See, e.g., *Pogrebin, supra* note 26, describing New York state and city initiatives to encourage green building.

30. Telephone Interview with Peter Carradona, *supra* note 28.

31. *Id.*

32. Vision Long Island, VISION: A Smart Growth Organization, http://www.visionlongisland.org/vli_mission.htm (last visited Jan. 10, 2007).

33. Sustainable Long Island, History, <http://www.sustainableli.org/history.html> (last visited Nov. 27, 2007).

34. VISION Long Island, VISION: A Smart Growth Organization, http://www.visionlongisland.org/vli_mission.htm (last visited Nov. 27, 2007); Sustainable Long Island, Our Mission in Practice, <http://www.sustainableli.org/mission.html> (last visited Nov. 27, 2007); Telephone Interview with Gary Anzalone, Vice Chair, Long Island Chapter, U.S. Green Building Council (Sept. 14, 2007).

35. See Sid Cassese, *Nassau to Join "Green Building" Movement, Sort of*, KNIGHT RIDDER TRIB. BUS. NEWS, Sept. 6, 2007; Sid Cassese, *Nassau to Go Green with New County Buildings*, KNIGHT RIDDER TRIB. BUS. NEWS, July 27, 2007, at 1.

36. Town of Babylon, Town Demographics and Facts, <http://www.townofbabylon.com/demographics.cfm> (last visited Nov. 27, 2007).

greater than 4000 square feet to comply with a checklist of LEED standards known as LEED-New Construction (LEED-NC).³⁷

Under Babylon's system, any applicant for a permit to build a newly constructed commercial building, industrial building, office building, multiple residence, or senior citizen multiple residence must file a LEED-NC checklist with the Commissioner of Planning and Development.³⁸ The Commissioner is not authorized to issue building permits that do not meet these LEED-NC specifications.³⁹ In addition, each applicant must provide a deposit to the Town of Babylon Green Building Fund of at least \$.03 per square foot or at most \$15,000.⁴⁰ If the building successfully attains LEED-certified status, the green building deposit will be refunded to the builder.⁴¹ In order to assure that the town's standards are up-to-date, the ordinance automatically incorporates new LEED-NC standards as they are adopted by the USGBC.⁴²

While the effects of the new ordinance have yet to be seen, the law received a strong endorsement from Long Island Power Authority Chairman, Richard Kessel, who urged other Long Island municipalities to enact their own green building ordinances.⁴³ While no other municipality has accepted Kessel's challenge yet, the town of Brookhaven, New York, in a more limited measure, recently included LEED-based incentives in a town ordinance that requires all new stores larger than 125,000 square feet to seek special permits relating to green building.⁴⁴ For example, the ordinance would allow a store to occupy more land at a site if it met progressively more stringent LEED standards.⁴⁵

Finally, Long Island is home to significant eco-friendly building projects, which green building advocates have encouraged by market-

37. BABYLON, N.Y., CODE § 89-86 (2007) (on file with the New York University Journal of Legislation and Public Policy). For a background on LEED-NC, see USGBC: LEED for New Construction, <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=220> (last visited Jan. 26, 2008).

38. *Id.* § 89-86(A).

39. *Id.* § 89-86 (C).

40. *Id.* § 89-86 (B).

41. *Id.*

42. *Id.* § 89-84(A).

43. Press Release, Long Island Power Authority, LIPA Chairman Richard M. Kessel Commends Babylon's Green Building Initiative (Dec. 4, 2006), http://www.lipower.org/newscenter/pr/2006/120406_babylon.html. LIPA is Long Island's primary electric service provider. See Long Island Power Authority, About LIPA: Board of Trustees, <http://www.lipower.org/company/trustees.html> (last visited Jan. 10, 2007).

44. Dawn Hardesty, *Brookhaven's Big-Box Idea*, LONG IS. BUS. NEWS, May 3, 2007, at 1.

45. *Id.*

ing the potential opportunities to reduce costs. This argument has been particularly successful among public-sector builders.⁴⁶ Some notable LEED-registered projects constructed in Long Island by public-sector builders include the Westhampton Beach Village Hall⁴⁷ and the Hampton Bays Middle School Expansion.⁴⁸

The region's private sector has, however, been more reluctant to embrace green standards. Even so, several noteworthy projects have been built according to green principles over the past few years, including the Sea Tow Corporate headquarters in Southold, New York,⁴⁹ and an office building in Garden City.⁵⁰ Many other local private projects have incorporated, or plan to incorporate, at least some element of LEED building standards.⁵¹

For green building advocates, the developments on Long Island are promising but limited.⁵² The former Chairman of the Long Island chapter of the USGBC estimates that, at present, less than 1% of all buildings on Long Island comply with LEED standards.⁵³ Compared to five years ago, however, the green building movement has made substantial progress on Long Island, and the USGBC hopes that in time about 10% of buildings in Long Island will meet green standards.⁵⁴

NEW ORLEANS: REBUILDING THE CITY WITH GREEN BUILDING

Like most things in New Orleans, the city's green building movement has changed fundamentally in the aftermath of Hurricane Katrina. Prior to the hurricane, a stagnant economy hampered efforts to

46. Telephone Interview with Gary Anzalone, *supra* note 34.

47. Telephone Interview with Peter Carradona, *supra* note 28; U.S. Green Building Council, LEED Registered Projects (Apr. 12, 2007), <https://www.usgbc.org/ShowFile.aspx?DocumentID=2314>.

48. See Press Release, Long Island Power Authority, LIPA and Hampton Bays School District Partner to Design Middle School Expansion Project (Apr. 30, 2004), <http://www.lipa.state.ny.us/newscenter/pr/2004/april30.hbsd.html>; U.S. Green Building Council, LEED Registered Projects, *supra* note 47.

49. Eileen Duffy, *Green Grows the Building*, SUFFOLK TIMES, Sept. 14, 2006, at 15. Sea Tow is a self-described "international marine assistance franchise business." See Sea Tow, Corporate Info, <http://www.4seatow.com/about/default.asp> (last visited Jan. 10, 2007).

50. Press Release, VISION Long Island, 5th Annual Smart Growth Awards "Transforming the Landscape, One Place at a Time" (June 14, 2006), <http://www.visionlongisland.org/documents/postAWD06PR.pdf>.

51. See generally U.S. Green Building Council, LEED Registered Projects, *supra* note 47 (listing LEED registered projects by state, including cities on Long Island).

52. Telephone Interview with Peter Carradona, *supra* note 28.

53. *Id.*

54. *Id.*

build green in New Orleans—there was very little building, let alone green building, occurring.⁵⁵ The unprecedented destruction brought by Hurricane Katrina, however, has changed the calculus and new construction is now a necessity.⁵⁶ For green building advocates, rebuilding New Orleans presents an opportunity to showcase environmentally-friendly planning and building in a way that would not be possible if not for the crisis.⁵⁷ While green building advocates have embraced this opportunity and influenced the rebuilding effort, progress has been sluggish due to slow bureaucratic processes.⁵⁸

Shortly after Hurricane Katrina, environmental advocates began insisting upon the need to incorporate eco-friendly principles into rebuilding New Orleans.⁵⁹ Efforts to actually implement those principles, however, were initially criticized because of the city government's inability to develop a master plan for redevelopment that would be affordable for everyone.⁶⁰ In late 2006, a community group called the Greater New Orleans Foundation, working with New Orleans Mayor Ray Nagin, the New Orleans City Council, and other civic leaders, began drafting a plan that would later become the Unified New Orleans Plan (the Plan or UNOP).⁶¹ The Plan represents a crucial step toward rebuilding the city because it prioritizes projects, allocates capital needs,⁶² and provides the city a basis for requesting certain state and federal funding.⁶³ Until early 2007, plan organizers met and consulted with community members, community groups, and outside organizations to finalize the Plan, and among the goals for the

55. *New Orleans: Two Years Later*, L.A. TIMES, Aug. 29, 2007, at A16.

56. Almost 80% of housing in New Orleans was destroyed or drastically damaged during Hurricane Katrina. CITY OF NEW ORLEANS, UNIFIED NEW ORLEANS PLAN: CITYWIDE STRATEGIC RECOVERY AND REBUILDING PLAN 28 (2007), <http://www.unifiedneworleansplan.com/uploads/UNOP-FINAL-PLAN-April-2007-15744.pdf> (hereinafter UNOP).

57. See Kellie Lunney, *A Gulf of Good Intentions*, AM. PROSPECT, Jan.–Feb. 2007, at A20.

58. *Id.*

59. See, e.g., Alex Wilson & Jerome Goldstein, *Ten-Point Plan for Rebuilding New Orleans*, IN BUS., Sept.–Oct. 2005, at 26.

60. Mayor Nagin's initial "Bring New Orleans Back" plan divided residents of the city who felt that it did too little to protect the interests of the black community. See Natalie Pompilio, *Rebuilding New Orleans: Residents Split Along Neighborhood Lines*, KNIGHT RIDDER TRIB. NEWS SERV., Jan. 12, 2006, at 1. Poor residents complained that the plan would be too expensive and would have replaced housing with green space in some city neighborhoods that were the most damaged. See Lunney, *supra* note 57.

61. *Id.* at 8,14.

62. *Id.* at 9–10.

63. *Id.* at 18–19.

Plan was that the city achieve a “sustainable” and “environmentally safe” community.⁶⁴

The final version of the UNOP incorporates green building concepts, focusing on energy efficient building with estimated savings of \$20 million in annual energy costs.⁶⁵ The Plan designates energy efficient buildings as “high priority” for environmental projects and calls for an investment of \$100 million over the next ten years toward this goal.⁶⁶ This \$100 million investment would be by far the most significant investment made in any environmental project contemplated by the Plan, as the entire budget for environmental projects is set at \$134.4 million over ten years.⁶⁷

Despite incorporating this green building imperative into UNOP, though, the Plan remains vague about implementation. The Plan does not call for adherence to recognized green building standards such as the LEED standards or the National Association of Home Builders’ Model Green Home Building Guidelines. Instead, the plan seeks only to “identify incremental cost effective strategies that involve up to a 10% increase in cost but provide, at a minimum, a 15% reduction in NPV [net present value] of energy or resource use.”⁶⁸ Adopting this results-based criterion may theoretically reach the same result as requiring the use of certain established guidelines, but as a practical matter it provides little guidance to builders who are not experienced in green building techniques.

Despite this shortcoming, however, any proposal to allocate resources to green building should be a welcome sign for the green building community in New Orleans. A 2006 survey ranked New Orleans thirty-second out of the fifty biggest U.S. cities in terms of “overall sustainability,” and forty-fourth in terms of buildings that had been registered or certified to meet LEED standards.⁶⁹ While the Plan may not significantly increase New Orleans’ LEED ranking, it demon-

64. *Id.* at 13–16.

65. *Id.* at 109.

66. *Id.* at 180.

67. *Id.*

68. *Id.* at 280.

69. SustainLane.com, New Orleans, LA: US City Sustainability Ranking, <http://www.sustainlane.com/us-city-rankings/neworleans.jsp> (last visited Nov. 8, 2007). The group calculated “overall sustainability” based on a composite score of fifteen categories of data related to environmental health, ranging from compliance with LEED standards to planning and land use to tap water quality. For more information on the methodology employed, see SustainLane.com, Methodology of Study: US City Sustainability Ranking, <http://www.sustainlane.com/us-city-rankings/methodology.jsp> (last visited Nov. 8, 2007).

strates New Orleans' commitment to push its building construction in a greener direction.

The New Orleans City Council has also sought to strengthen the ties between the community and its developers through implementing community benefit agreements (CBAs).⁷⁰ CBAs are legally binding agreements between developers and community organizations to ensure various community benefits, which may include green building.⁷¹ The New Orleans City Council passed a resolution endorsing CBAs in May 2007,⁷² but the effects of the resolution remain to be seen.

New Orleans community groups will also have an opportunity to connect with green builders nationwide when New Orleans hosts the National Association of Home Builders' (NAHB) Tenth Annual National Green Building Conference in May 2008.⁷³ Members of NAHB, an organization comprised primarily of small business owners, build approximately 80% of new homes in the United States,⁷⁴ giving the city access to a wealth of experience about residential green building practices.

Non-profit organizations have also encouraged eco-friendly design through a simpler project-by-project approach. One group that has been particularly active in this area has been Global Green USA, the U.S. arm of an international non-governmental organization devoted to green building, founded by ex-Soviet Premier Mikhail Gorbachev.⁷⁵ Global Green recently teamed with actor Brad Pitt to sponsor a green-building design competition for low-income housing units in the New Orleans' Lower Ninth Ward.⁷⁶ The low-income units currently being built will have eco-friendly features, such as solar panels and geothermal heat pumps.⁷⁷ Other Global Green Projects in New Orleans include a Green Schools Initiative to rehabilitate two schools in an energy efficient manner⁷⁸ and building a Green Building

70. Molly Reid, *The New N.O.: United We Plan*, TIMES-PICAYUNE (New Orleans, La.), June 23, 2007, at 22.

71. *Id.*

72. *Id.*; NEW ORLEANS, LA., RES. NO. R-07-209 (2007), available at <http://www.nocitycouncil.com/meetingsAndAgendas.asp>.

73. NAHB, National Green Building Conference, http://www.nahb.org/conference_details.aspx?conferenceID=59 (last visited Nov. 8, 2007).

74. NAHB, Builders Urge Congress to Support Market-Driven Green Building, http://www.nahb.org/news_details.aspx?newsID=5011 (last visited Nov. 8, 2007).

75. Global Green USA, About Global Green, <http://www.globalgreen.org/about/index.html> (last visited Nov. 8, 2007).

76. *New Orleans: Two Years Later*, *supra* note 55.

77. *Id.*

78. Global Green USA, The Sustainable Rebuilding of New Orleans and the Gulf Coast, http://www.globalgreen.org/press/releases/2007_10_04_nolaoverview.htm (last visited Nov. 8, 2007).

Resource and Design Center, where experts will provide consultation on green building methods.⁷⁹

Since Hurricane Katrina, green building advocates have attempted to make New Orleans a symbol of the green building movement. While these advocates have had some success both in influencing central planning and in attracting funds for small scale projects for low-income housing, they have faced the same challenges by the many in post-Katrina New Orleans, including a slow bureaucracy. Nevertheless, green building has at least become part of the civic dialogue.

PHILADELPHIA: PRIVATELY GOING GREEN

Philadelphia's buildings are "going green," but in a manner somewhat different from some of its peer cities. Unlike Chicago,⁸⁰ for example, Philadelphia does not at this time have legislation mandating green building and offers relatively few financial incentives encouraging eco-friendly development. Because of this, Philadelphia's green buildings are largely the product of the city's private, rather than public, sector. For instance, many businesses have initiated green development projects or have become donors for projects, such as the construction of the "School of the Future," the country's first eco-friendly high school.⁸¹ Thanks to these privately-funded projects, when Philadelphia's city government is ready to play a more active role in eco-conscious building, it will have a good point of reference within its own city.

Many of Philadelphia's green buildings are the product of its private sector. The Comcast Center, currently being built in downtown Philadelphia, will be the tallest green building in the country.⁸² Another massive eco-friendly building under construction is called "the Big Green Building" and will feature a community garden among re-

79. *Id.*

80. *See supra* "Chicago: A Model for Legislating Green Building" for a discussion of the green building efforts by Chicago's city government.

81. *See, e.g.,* Michelle Williams, *FOXe: Energy Efficient Skyscrapers*, MyFox PHILA., July 22, 2007, <http://www.myfoxphilly.com/myfox/pages/Home/Detail;jsessionid=7763303743C3AA5DC82646B13CDC7BF6?contentId=3809953&version=1&locale=EN-US&layoutCode=TSTY&pageId=1.1.1&sflg=1> (discussing the Comcast Center, a privately initiated green building); Tamar Lewin, *In Public Schools, The Name Game As a Donor Lure*, N.Y. TIMES, Jan. 26, 2006, at A1 (describing Philadelphia's new, green high-school); Piper Lowell, *School District to Test 'Green' Buildings*, PHILA. BUS. J., Sept. 17, 2004, at 17, available at <http://philadelphia.bizjournals.com/philadelphia/stories/2004/09/20/focus3.html>.

82. Williams, *supra* note 81.

tail outlets, residential apartments, office units, and a research lab.⁸³ In addition, many Philadelphia businesses cooperate in eco-conscious corporate networks, which promote the “triple bottom line” of profitability, social awareness, and environmental responsibility, including the creation of sustainable and energy-efficient structures.⁸⁴

Corporations in Philadelphia also collaborate with the city’s public sector on green building projects. For instance, the new \$55 million public “School of the Future” is a joint endeavor between private companies, the Philadelphia school district, and the Delaware Valley Joint Building Council.⁸⁵ Most of the funding for the project has come from private companies.⁸⁶ The school’s eco-friendly features include a green roof and a high-tech storm-water management system.⁸⁷ Although the idea of having a public school built mostly with private funding may be controversial, the “School of the Future” illustrates that there is one viable option for a city that wants to become architecturally green without spending much government money: find private donors who care about the environment and are willing to contribute.

Philadelphia’s public sector is somewhat less involved with green building. The city government does not require municipal buildings to be “green,” nor has it codified energy efficiency building standards. Philadelphia’s city government also does not provide many special incentives for developers to use renewable building materials. Nonetheless, the city government does have some programs encouraging green development. For instance, in 2007 the city began honoring environment-friendly projects and businesses through its publicized Sustainability Awards.⁸⁸ Philadelphia’s new Police Forensic Science Center received such an award and is an example of some municipal buildings that are being built green absent legislation to do so.⁸⁹

83. Francesca Heintz, *Welcome to the Big Green Building*, PHILA. CITY PAPER, Feb. 21, 2007, available at <http://www.citypaper.net/print-article.php?aid=10325> (describing the 70,000 square foot “Big Green Building”).

84. Glenn Rifkin, *Making a Profit and a Difference*, N.Y. TIMES, Oct. 5, 2006, at C5.

85. See Lewin, *supra* note 81; Lowell, *supra* note 81.

86. For instance, Microsoft was a partner in the building design and contributed \$100,000 for the school’s visitors center. Lewin, *supra* note 81. See also Lowell, *supra* note 81.

87. Lewin, *supra* note 81.

88. Philadelphia Sustainability Awards, About the Awards, <http://www.philadelphiasustainabilityawards.org/awards> (last visited Nov. 3, 2007).

89. Philadelphia Sustainability Awards, 2007 Winners, <http://www.philadelphiasustainabilityawards.org/winners/1> (last visited Jan. 10, 2008). See also Philadelphia Sustainability Awards, Philadelphia Police Forensic Science Center,

In addition to local initiatives, the Pennsylvania state legislature is considering two green building-related bills that, if passed, will affect Philadelphia. House Bill (HB) 1204 would set energy efficiency requirements for all new or newly-renovated state-appropriated buildings,⁹⁰ and HB 1205 would establish a tax credit for construction or renovations that meet LEED standards.⁹¹ In May 2007, both bills were referred to the Pennsylvania House's Environmental Resources and Energy Committee, but there has been no further action to date.⁹²

Prior budget constraints may be one of the major reasons Philadelphia's city government has not yet embraced green building to the extent of some of its peer cities. When Ed Rendell became Mayor in 1992, Philadelphia's government faced a deficit of \$250 million, or more than one-tenth its annual budget, and the city also struggled with job loss and crime.⁹³ To this day, Philadelphia continues to have budget deficits.⁹⁴ Still, Philadelphia policymakers are wise to make what investments they can in green building because these investments are likely to result in long-run cost savings for the city and its residents.⁹⁵

SAN FRANCISCO: AHEAD OF ITS PEERS

California has become well known for its efforts to protect the environment, including green building. California currently requires all new state buildings and major renovations of 10,000 square feet or more, as well as those subject to California's energy code, to be de-

adelphiasustainabilityawards.org/nominees/croxton (last visited Jan. 10, 2008) (describing green features of city's forensic center).

90. H.B. 1204, 2007 Gen. Assem., Reg. Sess. (Pa. 2007).

91. H.B. 1205, 2007 Gen. Assem., Reg. Sess. (Pa. 2007); Press Release, State Rep. Matthew H. Smith, Smith Unveils 'Green' Building Legislation (June 8, 2007), <http://www.pahouse.com/pr/042060807.asp>.

92. HOUSE BILL 1204 HISTORY, H.B. 1204, 2007 Gen. Assem., Reg. Sess. (Pa. 2007), available at <http://www.legis.state.pa.us/WU01/LI/BI/BH/2007/0/HB1204.HTM>; HOUSE BILL 1205 HISTORY, H.B. 1205, 2007 Gen. Assem., Reg. Sess. (Pa. 2007), available at <http://www.legis.state.pa.us/WU01/LI/BI/BH/2007/0/HB1205.HTM>.

93. Matthew Purdy, *The New Mayor; The Philadelphia Story: Inspiring for New Mayor*, N.Y. TIMES, Jan. 2, 1994, at A23.

94. For instance, in 2006, Philadelphia had a \$50 million operating deficit. See PHILA. DEP'T OF FIN., FISCAL 2007 OPERATING BUDGET, available at http://www.phila.gov/reports/Budget_in_Brief_2007.pdf.

95. Indeed, one property specialist estimates that, "For energy retrofits, we typically see a minimum internal rate of return of 15%, and most of them are a lot higher than that, 30% to 50%." Avis, *supra* note 9 (quoting Frank Frankini, Senior Vice President of Engineering and Construction, Equity Office Properties Trust). See also Lowell, *supra* note 81, at 1 ("Green buildings can produce 10 percent to 40 percent savings in operating costs, usually from lower energy bills.").

signed, constructed, and certified as LEED-NC Silver or higher, or LEED for Existing Buildings (LEED-EB), as appropriate.⁹⁶ San Francisco's green building efforts, however, surpass state requirements to protect the environment and encourage eco-friendly building within the city.

For San Francisco, interest in environmental construction began in 1996,⁹⁷ but dedication to green building efforts first blossomed in 1999 with the passage of the Resource Efficient City Building Ordinance (REBO).⁹⁸ REBO enacted a Green Building Pilot Program, which would provide the municipality initial experience with building green requirements and allow the San Francisco Department of Environment (SF Environment) to accurately assess the costs and benefits of such requirements. The city instituted nine projects in order to thoroughly assess the viability of moving forward with green requirements.⁹⁹ The most acclaimed of these projects remains the California Academy of Sciences, the only one with a goal of reaching LEED-NC Platinum, or the highest level of LEED certification.¹⁰⁰ While construction finished in November 2007, the Academy of Science's doors

96. Exec. Order No. S-20-04 (Cal. 2004) (enacted by Gov. Schwarzenegger), available at <http://www.dot.ca.gov/hq/energy/ExecOrderS-20-04.htm>; STATE OF CALIFORNIA, GREEN ACTION BUILDING PLAN, § 1.1.1.2 (detailing LEED requirements directed by Executive Order S-20-04).

97. In October 1996, San Francisco implemented a sustainability plan. See SF ENVIRONMENT, SUSTAINABILITY PLAN (1996), available at <http://www.sfenvironment.org/downloads/library/sustainabilityplan.pdf>.

98. S.F., CAL., ADMIN. CODE §§ 82.1–82.8 (1999), repealed by S.F., CAL., ORDINANCE 171-03 (2003). See also SF ENVIRONMENT, SAN FRANCISCO MUNICIPAL GREEN BUILDING COMPLIANCE GUIDE 3 (2004), <http://www.sfenvironment.org/downloads/library/gbcomplianceguide.pdf>.

99. The Pilot Program included the California Academy of Sciences, Laguna Honda Hospital, SFPUC Headquarters Building at 525 Golden Gate Avenue, the SF Environment EcoCenter, Moscone Convention Center West, Parque Ninos Unidos, Visitacion Valley Community Center, Golden Gate Park West End Pavilion, and the Islais Creek Muni Operations and Maintenance Facility. See SF ENVIRONMENT, MUNICIPAL GREEN BUILDINGS IN SAN FRANCISCO, <http://www.sfenvironment.org/downloads/library/municipalgreenbuildings.pdf>. SF Environment is the city agency that oversees municipal environmental efforts in general. See S.F., CAL., CHARTER § 4.118 (describing the Commission on the Environment, otherwise known as SF Environment). It also specifically issues guidelines for the municipal environmental efforts dealing with the Green Building Pilot Program. See S.F., CAL., ADMIN. CODE § 82.4(a) (1999).

100. SF ENVIRONMENT, MUNICIPAL GREEN BUILDINGS IN SAN FRANCISCO, *supra* note 99.

are set to open in September 2008.¹⁰¹ Meanwhile, the building's design has received awards for the past three years.¹⁰²

Further, SF Environment has initiated a Green Building Training Program and a Green Building Design Toolkit for city professionals interested in learning more about green building.¹⁰³ Additional initiatives include the San Francisco Green Building Project Reporting and Information Tool, a web-based application providing information and resources to city professionals for constructing buildings in accordance with LEED standards.¹⁰⁴

San Francisco then cemented its dedication to environmental construction with the Municipal Green Building Ordinance (MGBO) in 2004.¹⁰⁵ The MGBO established the Resource Efficient Building Task Force, designed to offer guidelines for green building projects, develop and oversee training programs regarding environmental regulations, and maintain a compliance guide.¹⁰⁶ The MGBO mandates that the task force measure the environmental performance of San Francisco's municipal buildings by using the LEED rating system.¹⁰⁷ All municipal construction projects of 5000 square feet or more must include on their design team at least one LEED-accredited professional member and must present a design proposal that earns a LEED Silver rating or higher.¹⁰⁸ For projects with less than 5000 square feet,

101. See Robert Carlsen, *San Francisco's Academy of Science Project Eyes LEED Platinum*, CAL. CONSTR., Sept. 2007, at 21; California Academy of Sciences, Visit, <http://www.calacademy.org/visit/> (last visited Jan. 18, 2008).

102. The project has won the 2005 Silver Holcim Award for Sustainable Design, the 2006 Environmental Award from the Environmental Protection Agency (EPA), and the 2007 Design Special Commendation from the AIA-SF Chapter for the use of Integrated Practices. See Carlsen, *supra* note 101.

103. See SF ENVIRONMENT, SAN FRANCISCO MUNICIPAL GREEN BUILDING COMPLIANCE GUIDE, *supra* note 98, at 25. See also S.F., Cal., Res. 127-01 (Sept. 25, 2000), available at <http://www.ssfgov.org/site/uploadedfiles/bdsupvrs/resolutions01/r0127-01.pdf> (accepting money from California Integrated Waste Management Board for development of Green Building toolkit and training programs).

104. See SF Environment, Our City's Programs, http://www.sfenvironment.org/our_programs/topics.html?ssi=8&ti=19 (last visited Jan. 30, 2007); Welcome to Green-PRINT, <http://www.sfgreenprint.org/> (last visited Nov. 15, 2007).

105. S.F., Cal., Ordinance 88-04 (Apr. 26, 2004) (codified as S.F. CAL., ENV'T CODE §§ 700-10 (2007)) (repealing Chapter 7 of the S.F. Environment Code and replacing it with one addressing Green Building standards and requirements).

106. See S.F., CAL., ENV'T CODE §§ 702, 703; SF ENVIRONMENT, MUNICIPAL GREEN BUILDINGS IN SAN FRANCISCO, *supra* note 99, at 3. The Task Force is comprised of representatives from ten San Francisco departments and one member from the public. S.F., CAL., ENV'T CODE § 702.

107. S.F., CAL., ENV'T CODE § 707(a).

108. S.F., CAL., ENV'T CODE § 707(e)(1). It should be noted, however, that waivers of this requirement are available in the case that construction would not meet the

the code now requires the design to provide for the maximum LEED rating practicable.¹⁰⁹

As of June 2007, San Francisco had many municipal projects aspiring for different levels of LEED certification: two for LEED Certification, five for LEED-NC or -EB Silver, one for LEED Gold, and one for LEED Platinum.¹¹⁰ While the total number of green building projects cannot be established for certain,¹¹¹ the Northern California Chapter of the USGBC is aware of fifty-two LEED-certified projects in the area and sponsors a link to a list of forty-five green buildings in San Francisco, twenty of which are registered at some level of LEED compliance.¹¹²

While REBO and MGBO have played the largest roles in furthering green building efforts in San Francisco, the city has initiated other measures concerning environmental construction. The city government has passed several actions and ordinances addressing general green building concerns.¹¹³ For instance, in 2005 the San Francisco Mayor's office announced that the city government would "apply environmentally sustainable development principles to *all* [of its] new affordable housing developments," making it the first city in the coun-

standards due to an emergency need for the building or that construction in accordance with these requirements would be cost prohibitive. *Id.* §§ 708(a)–708(b).

109. *Id.* § 707(d).

110. *See* SF ENVIRONMENT, MUNICIPAL GREEN BUILDINGS IN SAN FRANCISCO, *supra* note 99.

111. This uncertainty stems from the fact that there is a sizable grassroots movement for green buildings, which provide resources for homebuilders looking to preserve the environment whose efforts would not necessarily be reported to government agencies. *See, e.g.*, West Coast Green, About, <http://www.westcoastgreen.com/about/> (last visited Nov. 30, 2007) (discussing San Francisco's conference for residential builders concerning green building).

112. *See* USGBC, Northern California Chapter, Local LEED Buildings, http://www.usgbc-ncc.org/index.php?option=com_content&task=view&id=37&Itemid=81 (last visited Nov. 30, 2007); *see also* M. Landman Communication and Consulting, Green Buildings in the San Francisco Bay Area, <http://www.mlandman.com/gbuildinginfo/bayareagreenbuildings.shtml> (last visited Nov. 20, 2007).

113. As indicated in the San Francisco Municipal Green Building Compliance Guide, the primary areas of concern are sustainable site planning, safeguarding water and water efficiency, energy efficiency and renewable energy, conservation of materials and resources, and indoor environmental quality. SF ENVIRONMENT, SAN FRANCISCO MUNICIPAL GREEN BUILDING COMPLIANCE GUIDE, *supra* note 103. San Francisco has enacted several directives and ordinances. *See* S.F., CAL., ENV'T CODE §§ 1500–05 (2006) (city-wide green business program process); *id.* §§ 1400–17 (2006) (construction and demolition); *id.* §§ 200–10 (2005) (precautionary purchasing); S.F., CAL., BUS. & TAX REG. CODE art. 12-aA, § 906.2 (2006) (the Clean Energy Technology Business Payroll Expense Tax exclusion).

try to adopt such standards.¹¹⁴ In the same year, the Mayor held a celebration of the United Nations' World Environment Day, culminating in San Francisco's endorsement of the Urban Environmental Accords.¹¹⁵ In 2006, the city government created an incentive for green building by announcing that it would expedite building permits to all new and renovated buildings that qualify for LEED Gold rating or its equivalent.¹¹⁶ As of June 2007, eight projects have qualified for the expedited permitting process, and four more are pending.¹¹⁷

San Francisco will continue to develop and implement green building projects. A recently published report by the Mayor's Task Force on Green Buildings encourages an aggressive implementation of environmental standards over the next five years, not only for municipal buildings, but also private sector buildings that are both commercial and residential.¹¹⁸ In addition, the report discusses various incentive programs that could aid the transition to higher standards and recommends the use of GreenPoint Rated standards in conjunction with LEED standards when measuring residential construction projects.¹¹⁹

114. See Press Release, San Francisco Office of the Mayor, San Francisco Becomes First City in the Country to Adopt Green Building Standards (Aug. 2, 2005), http://www.sfgov.org/site/mayor_page.asp?id=33620.

115. The Urban Environmental Accords declared that the mayors who sign it will commit to build an "ecologically sustainable, economically dynamic, and socially equitable future for urban citizens," according to seven areas: energy, waste reduction, urban design, urban nature, transportation, environmental health, and water. Urban Environmental Accords, June 5, 2005, <http://www.sfenvironment.org/downloads/library/accords.pdf>. The document has since been signed by more than a hundred mayors around the globe. MAYOR'S TASK FORCE ON GREEN BLDGS., REPORT AND RECOMMENDATIONS 1 (June 2007), available at <http://www.sfenvironment.org/downloads/library/gbtfrrreleasev1.3.pdf>.

116. See Press Release, San Francisco Office of the Mayor, Mayor Newsom Announces Expedited Permit Processing for Green Buildings (Sept. 28, 2006), available at http://sfgov.org/site-/mayor_page.asp?id=46866; S.F. PLANNING DEP'T, DIR. BULL. NO. 2006-02, PLANNING DEPARTMENT APPLICATION PROCESSING GUIDELINES (2006), available at <http://sfgov.org/site/uploadedfiles/dbi/downloads/AB-004.pdf>.

117. MAYOR'S TASK FORCE ON GREEN BLDGS., REPORT AND RECOMMENDATIONS, *supra* note 115, at 1.

118. See *id.* at 4–5; Robert Selna, *Eco-tough S.F. Code Proposed for Buildings*, S.F. CHRON., July 11, 2007, at A1 ("San Francisco will impose the nation's most environmentally rigorous building standards if officials agree to new recommendations from a task force convened by Mayor Gavin Newsom.").

119. MAYOR'S TASK FORCE ON GREEN BLDGS., REPORT AND RECOMMENDATIONS, *supra* note 115, at 5–6. For a background on GreenPoint standards, see *id.* at 20. GreenPoint Rated standards are thought of as a report card for new buildings—if the building achieves over fifty points in various eco-friendly categories, then it earns the label of being GreenPoint Rated, which is intended to "exceed state building and energy requirements for health and environmental performance." *Id.*; Build It Green,

While San Francisco continues to fully incorporate green buildings into their city planning, leaders in the state government may have stalled this progress. Earlier this year, state Assembly Bills 35, 888, and 1058 created controversy by proposing to establish statewide regulations that would help create new tracts of energy-efficient homes and require efficient commercial buildings starting in 2013.¹²⁰ Governor Schwarzenegger vetoed these bills, stating he did not want to make the building standards statutory and preferred to leave decisions regarding green buildings to the Building Standards Commission because of the Commission's "open public adoption process allowing experts to develop standards and periodic updates to the building codes."¹²¹ Since San Francisco already has taskforces that incorporate expert opinion in green building decisions, the city could be a model not only for other cities' governments wishing to implement such programs, but perhaps also for the state government of California.

SEATTLE: AT THE FOREFRONT OF GREEN BUILDING

Seattle took its place among the pioneers of green building in 2000¹²² and remains at the forefront of the movement today. As of

GreenPoint Rated Benefits, <http://www.builditgreen.org/greenpoint-rated/benefits> (last visited Jan. 26, 2008).

120. A.B. 35, 2007–2008 Leg., Reg. Sess. (Cal. 2007); A.B. 888, 2007–2008 Leg., Reg. Sess. (Cal. 2007); A.B. 1058, 2007–2008 Leg., Reg. Sess. (Cal. 2007). *See also* Dave Downey, 'Green' Building May Become the Law, KNIGHT RIDDER TRIB. BUS. NEWS, Sept. 25, 2007.

121. Dan Smith, *Governor Rushes to Clear Bills: He Vetoes Posting of Nutrition Data in Some Eateries; Also Nixes 'Green' Construction Measure*, KNIGHT RIDDER TRIB. BUS. NEWS, Oct. 15, 2007.

122. *See* CITY OF SEATTLE DEP'T OF PLANNING & DEV., SUSTAINABLE BUILDING PROGRAM 5-YEAR REPORT 3 (2005), available at http://seattle.gov/dpd/static/5-year_report_LatestReleased_DPDP_007658.asp [hereinafter 5-YEAR REPORT] (reporting adoption of Seattle's Sustainable Building Policy in February 2000). Actually, Seattle has been weighing concerns of sustainability since 1992, listing it as one of the eleven guiding principles in the Environment Action Agenda it adopted in that year. Seattle.gov, Dep't of Planning and Dev., Timeline: Green Building Milestones, http://www.seattle.gov/dpd/GreenBuilding/OurProgram/Overview/Programhistory/DPDS_007658.asp (last visited Nov. 20, 2007). In 1994 the City adopted The Comprehensive Plan for Growth Management, "Toward a Sustainable Seattle," soon followed by the establishment of the Office of Sustainability and the Environment in 1997. *Id.* Seattle was then asked to analyze and put together a report on sustainability potential in the Northwest, which it completed in 1999 with the publication of the "Northwest Regional Sustainable Building Action Plan." *Id.* In the same year, the City Environmental Management Program took on green building as one of its issues, and a city Green Building Team was formed. While the history leading to the city's adoption of the Sustainability Building Policy is worth noting, the Sustainable Business Policy itself, adopted by the city council, seems to be the proper starting point for an analysis of Seattle's green building efforts. *See* 5-YEAR REPORT, *supra* note 122, at 3 (noting "substantial progress" has been made since the city's adoption of its Sustainable

2007, Seattle has the highest number of newly constructed buildings that are LEED-certified¹²³—four have LEED Gold ratings and three have LEED Silver ratings.¹²⁴ The success of these green building efforts have stemmed from several sources. Seattle's greatest green building effort is through the city's Sustainable Building Policy (the Policy),¹²⁵ which is greatly supplemented by public and private programs that provide incentives, resources, and information for residents interested in building green.

In 2000, Seattle became the first city in the nation to adopt LEED as a municipal design standard.¹²⁶ The Policy, which implemented the LEED standards, also established several important requirements that would shape the building process in Seattle.¹²⁷ First, the Policy officially adopted the LEED rating system for evaluating construction and renovations.¹²⁸ Second, the Policy mandated a minimum standard of LEED Silver for all city-owned facilities and buildings over 5000 total square feet, and third, promised a Mayor's Award for those facilities that achieve a higher rating.¹²⁹ The city of Seattle therefore started its green building movement with city-owned facilities.¹³⁰

While the Policy required green building for city government buildings, Seattle's government also began to encourage private commercial green building. In 2001, Seattle launched the city's LEED Incentive Program, which provides financial support for private commercial projects committed to LEED and that agree to hold at least

Building Policy in 2000); SEATTLE, WASH., RES. 30121, attach. A, § 6.9.1 (2000), available at <http://clerk.ci.seattle.wa.us/~public/RESN1.htm> (search "Sustainable Building Policy" in the "Title Words" field) (adopting the Sustainable Building Policy).

123. Lisa Chamberlain, *Finding the Green in Building Renovation*, N.Y. TIMES, Jan. 10, 2007, at C11.

124. Seattle.gov, City of Seattle Projects, <http://www.seattle.gov/dpd/GreenBuilding/CapitalProjects/Projects/> (last visited Nov. 17, 2007). For a comprehensive resource about green building efforts in Seattle, see Seattle.gov, City Green Building, <http://www.seattle.gov/dpd/GreenBuilding> (last visited Nov. 17, 2007).

125. SEATTLE, WASH., RES. 30121, attach. A, § 6.9.1, *supra* note 122. See also Seattle.gov, DPD Greenbuilding—Seattle's Policy, <http://www.cityofseattle.net/dpd/GreenBuilding/CapitalProjects/SeattlesPolicy/default.asp> (discussing the Sustainable Building Policy and supplying a link to Resolution 30121, which adopts and lists the Policy).

126. Alison Ryan, *Portland, Seattle Tied for Most U.S. Green Building Council LEED-Certified and Registered Projects*, DAILY J. OF COM. (Portland, Or.), Dec. 14 2005, at 1.

127. See SEATTLE, WASH., RES. 30121, attach. A, § 6.9.1-9.8, *supra* note 122. See also Seattle.gov, DPD Greenbuilding—Seattle's Policy, *supra* note 125.

128. SEATTLE, WASH., RES. 30121, attach. A, § 6.9.4, *supra* note 122.

129. *Id.*

130. See SEATTLE, WASH., RES. 30121, attach. A, § 6.9.2, *supra* note 122.

one LEED workshop.¹³¹ Financial support is given on two levels: \$15,000 for projects designed to be LEED Certified and \$20,000 for those seeking LEED Silver or above.¹³² Seattle has been successful in its efforts to encourage private commercial green building—as of 2005, seventeen projects were given or approved funding through this Incentive Program, four of which expected LEED Certification, seven expected LEED Silver (one which had already been designated as such), one expected LEED Silver or Gold, two expected LEED Gold, and one expected LEED Platinum.¹³³

Green building has also emerged in the residential market, largely through the SeaGreen Guide and Built Green Program. In 2002, Seattle's Office of Housing created green requirements for applicants seeking funding for the construction of affordable housing, which it listed in the SeaGreen Guide.¹³⁴ The SeaGreen Guide acts primarily as an informational tool, which describes various facets of construction and how construction efforts implement sustainable building standards.¹³⁵ In particular, the Office of Housing designed the SeaGreen Guide to be compatible with the green building certification standards of the Master Builders Association of King and Snohomish Counties' Built Green Program (Built Green).¹³⁶

Built Green provides not only a rating system and resource for information about sustainable buildings, but also provides for two key incentive programs. First, the city of Seattle Built Green Multifamily Incentive Program provides financial support for those construction projects looking to incorporate sustainable building in multifamily residences.¹³⁷ As of 2005, this incentive program had helped to create 490 units of green multifamily housing.¹³⁸ Second, Built Green includes the Built Green Grant, which targets single family residential and community development projects and provides some financial

131. 5-YEAR REPORT, *supra* note 122, at 9. Actually, the Incentive Program, like many others, was jointly sponsored by Seattle City Light and Seattle Public Utilities. *Id.*

132. *Id.*

133. *Id.* at app. 3.

134. CITY OF SEATTLE OFFICE OF HOUS., SEA GREEN: GREENING SEATTLE'S AFFORDABLE HOUSING, at iii (2002).

135. *See id.* at ii-iv.

136. *Id.* at v.

137. 5-YEAR REPORT, *supra* note 122, at 10.

138. *Id.* at 10, app. 3.

support to offset the costs of certifying and designing in accordance with the Built Green rating system.¹³⁹

Seattle's green building plan also includes promoting the image and reality of sustainable building. These efforts include a web-based tool to guide project managers and designers,¹⁴⁰ a green building communications campaign that presents the economic benefits of green building to developers,¹⁴¹ an award campaign for sustainable businesses,¹⁴² and a design competition aimed to bringing more Built Green certified homes within the Seattle city limits.¹⁴³ Together these programs promote sustainable building through a whole-building approach, but Seattle has other specific incentive plans and outreach programs sponsored by publicly-owned utilities which have also played an important role in expanding the reach of green building efforts.¹⁴⁴

For Seattle, these promotional efforts have been successful—increasingly more building projects are interested in the city government's incentive programs. There has been, however, a notable lack of discussion regarding codifying or requiring the green building standards, which may be due to Seattle's promotional efforts that already encourage builders and owners to implement green building practices. Nevertheless, Seattle has made a respectable start with its Sustainable Building Policy, which resulted in the Seattle Justice Center and Central Library's LEED Silver awards and City Hall's LEED Gold.¹⁴⁵

139. See Master Builder's Ass'n of King and Snohomish Counties, Washington, Built Green – Built Green Grants, <http://www.builtgreen.net/incentive.html> (last visited Oct. 30, 2007).

140. See Seattle.gov, Implement: Seattle's Sustainable Building Tool, <http://www.seattle.gov/implement> (last visited Oct. 30, 2007).

141. 5-YEAR REPORT, *supra* note 122, at 13.

142. *Id.* at 14. This campaign is referred to as the "BEST Awards" (Businesses for an Environmentally Sustainable Tomorrow), which have been awarded to the University of Washington Facilities Services, Archdiocesan Housing Authority, Miller Hull Partnership, Seattle University, and PCC Fremont. See *id.*

143. *Id.* at 10, 13 (describing the Built Green Design Competition).

144. Seattle City Light (a publicly own electric power utility) and Seattle Public Utilities (Seattle's utility for water, sewer, drainage, and solid waste services) provide for the vast bulk of sustainable building incentive programs. Holistically, they both contribute to the city's LEED Incentive Program, as well as the Built Green Multifamily Incentive Program and the Built Green Grant program. Both utilities also have a good number of specific area incentives. As of 2005, Seattle City Light offers funding and incentives to groups involved in Energy Conservation Measures Beyond Code, Energy Analysis Assistance, Building Commissioning Assistance, Natural Ventilation, Lighting Design Lab, and the Green Power Program. Seattle Public Utilities provides incentive and technical assistance to those involved in Water Conservation, Water Smart Technology Program, Rainwater Collection Pilot Program, Natural Drainage Program, and the Waste Reduction and Recycling Program. *Id.* at app. 8.

145. *Id.* at 7.

The incentive programs currently in place have helped to incorporate green building in commercial and residential markets, which may serve as a model for other cities to follow.

