



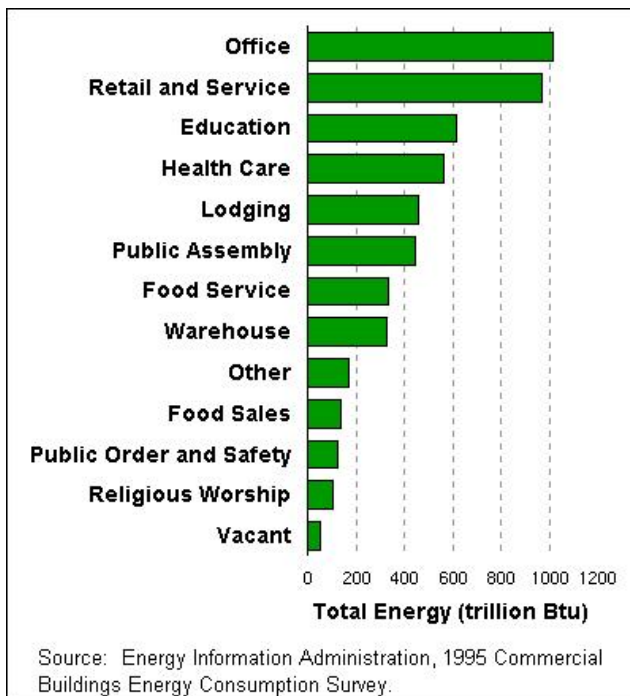
LEED, Green Building

City of Houston

Overview

Commercial buildings have a significant impact on the environment. The design, construction and operation of buildings and structures within the City can have a significant impact on the City's environmental sustainability, resource usage, energy efficiency, waste management, and the health and productivity of residents, workers, and visitors.

According to recent studies published by the United States Green Building Council (USGBC), and the U.S. Environmental Protection Agency (EPA), the construction, demolition and operation of buildings in the United States, collectively consume up to 37% of the total energy used, 12% of all fresh water supplies, 40% of all raw materials used; generates 36% of total emissions of anthropogenic carbon dioxide – the primary greenhouse gas associated with climate change – 46% of all sulfur dioxide emissions, 19% of nitrogen oxide emissions, and 10% of fire particulate emissions.



Because of this, many government officials, owners, developers, operators, and designers have looked at green building options, which are more environmentally friendly. Green buildings can include, among other things, the use of certified sustainable wood products, extensive use of high-recycled-content products; recycling of waste that occurs during deconstruction, demolition and construction; orientation and design of a building to reduce the demand on the heating, ventilating, and air conditioning systems; the use of heating, ventilating, and air conditioning systems that provide energy efficiency and improved air quality; enhancement of indoor air quality by selection and use of construction materials that do not

emit chemicals that are toxic or irritating to building occupants; the use of water conservation methods and equipment; and installation of alternative energy methods for supplemental energy production.

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

LEED provides a roadmap for measuring and documenting success for every building type and phase of a building lifecycle.

LEED-certified buildings:

- are leading the transformation of the built environment
- are built as designed and perform as expected.
- have lower operating costs and increased asset value
- are healthy and comfortable for their occupants
- reduce waste sent to landfills
- conserve energy and water
- reduce harmful greenhouse gas emissions
- qualify for tax rebates, zoning allowances, and other incentives in hundreds of cities
- demonstrate an owner's commitment to environmental stewardship and social responsibility

The City of Houston's Green Building Resolution

On June 23, 2004, Houston City Council adopted the Green Building Resolution, which set a target of Silver level LEED certification for new construction, replacement facilities and major renovations of city of Houston-owned buildings and facilities with more than 10,000 square feet of occupied space. The Building Services Department is implementing this policy in its management of projects in the City's Capital Improvement Plan.

Utilizing sustainable design practices will significantly reduce operations and maintenance costs and decrease the negative impact of buildings on the environment and occupant health in the City of Houston.

The planning, design, construction, and operation of the City of Houston's LEED certified buildings, facilities, and leaseholds should have a significant positive effect on Houston's air quality, water quality, and quality of life; while contributing to the environmental and economic sustainability of our City.

The City of Houston's "Quick Start" Program

Our standard commercial building plan review for the City of Houston is at 11 calendar days for 90% of all commercial plan reviews. This was a significant recent result of a taskforce initiative initiated by the Mayor's Taskforce on Permit Reform. This process improvement puts Houston at the forefront of reduced permit processing times of large cities in the U.S.

In addition, as further incentive to encourage LEED Green Building Rating System certification, the Code Enforcement division of the City of Houston offers a **Quick Start** service to any project, which has registered for LEED certification regardless of construction cost and/or size.

Incentive

The City of Houston is proud to offer financial incentives for LEED certified buildings. LEED projects qualify for a graduated rebate of the Quick Start fees. The rebate is based on the level of achievement – certified, silver, gold or platinum.

Process

The process works as follows:

- A) Declare intent in the first plan review. The review is done through the normal submittal process - approximately 11 calendar days to complete.
- B) Then, as long as the developer sends in complete plans to start with, and has their “outside” department approvals, they qualify for the Quick Start meeting process, which used to be limited only to one million dollar projects. Instead of resubmitting for any subsequent reviews, which also take the typical 11 days LEED, projects will go directly to the meeting process.
- C) By opting to pay an additional fee of 65% of the permit cost, the final plan review is completed in a face-to-face conference-like meeting with the reviewers, designers and owners present. The Quick Start program has been a popular option as it generally eliminates at least one plan resubmittal, thus, saving the builders valuable time and money.
- D) Return of fee upon certification by the USGBC.

The levels of achievement and rebates are as follows:

- Platinum Level – 100%
- Gold Level – 75%
- Silver Level – 50%
- Minimum Level – 25%

For review, participants will need to submit:

- A Quick Start Application
- The project registration receipt from the USGBC
- The checklist of points the building is designed to achieve
- The required Quick Start fee (65% of building permit)

After construction and occupancy, when LEED certification is achieved, the applicant must present the certificate from the USGBC to confirm the level of achievement.

Application for the rebate must be made within 90 days of the date of certification.

We are consistently completing commercial plan reviews within a record setting eleven days; however the elimination of another eleven-day cycle can save interim financing and other costs for the builder. Allowing broader access to the program and rebating the additional charge is a significant benefit to those who undertake the worthy goal of LEED construction and operation.

The costs that are saved to the builders are an attractive incentive to encourage Houston business and industry leaders to build LEED certified buildings.

The City of Houston's Education Outreach

The City of Houston is dedicated to teaching the citizens of Houston the importance of green building. The City launched an educational website to inform people of the importance of energy efficiency – www.houstonpowertopeople.com. Among other things, this website houses information about green building.

The City is currently working on a separate educational website solely dedicated to educating Houstonians about green building.

City Projects Currently Pursuing LEED Certification

with estimated completion dates and estimated construction costs

1. HPD Service Animal Facility – substantial completion early Summer 2008; \$6.5 million
2. Looscan Neighborhood Library – substantial completion June 2007; \$5.9 million
3. HPD Property Room – substantial completion early Summer 2008; \$10.5 million
4. Fire Station 8 – substantial completion Fall 2007; \$7.2 million
5. South Post Oak Multi-Service Center / Vinson Library – substantial completion Spring 2008; \$9.2 million
6. Parks Department Headquarters – substantial completion 2008; \$6.9 million
7. Bracewell Branch Library – design commencing; schedule to be established; \$4.4 million
8. Kendall Branch Library – design commencing; schedule to be established; \$6.4 million
9. South Right-of-Way Fleet Maintenance Facility - programming commencing; schedule to be announced; \$10.7 million
10. Clayton House Library Complex – substantial completion late Spring 2008; \$5.5 million
11. African-American Library at the Gregory School – substantial completion Fall 2008; \$5.0 million
12. Fire Station 37 – design commencing; schedule to be announced; \$3.8 million

City Projects Currently Pursuing LEED Compliance

1. Frank Branch Library – substantial completion estimated Fall 2007; \$2.3 million
2. Westside Command Station – substantial completion September 2006; \$8.3 million

3. Northeast Multi-Service Center – substantial completion November 2007; \$6.2 million
4. Southwest Environmental Center (Household Waste Depository) – substantial completion Summer 2008; \$2.9 million
5. Oak Forest Branch Library Renovation – design commencing, schedule to be established; \$3.0 million
6. Kashmere Multi-Service Center Renovation – substantial completion Summer 2008; \$3.0 million

Non-City Projects, LEED Registered

1. 1800 West Loop South Office Building
2. African American Library
3. Greater Houston American Heart Association Building
4. Rice University, Autry Court Renovation and Addition
5. Rice University, McMurtry College and College 11
6. Rice University UEL Building
7. NASA B-20 New Office Building
8. NASA B-207A Rehabilitation Building
9. NASA Building 265 Addition
10. NASA Building 265 Phase 4
11. NASA Building 27 Astronaut Quarantine Facility (Certified)
12. NASA Refurbish Building 2 North
13. Natco Office Building
14. Panattoni Development, Beltway 8 Corporate Centre Building #4
15. Harris County Precinct 2, Beltway 8 Regional Park
16. Radler Enterprise, Inc., Beltway Lakes Office Park, Phase One
17. BP Commercial and Trading Office Building
18. Bullseye Storage West Dallas
19. Gerald D. Hines College of Architecture, Burdette W. Keeland Design Exploration C Building
20. Capitol Main Building
21. Chase Midtown Building
22. Central Green 9 Building
23. Chevron HOU 140 Building
24. Creative On Center Building
25. Houston Conservancy, Discovery Green Building
26. DNA Westway II, Building 2
27. DNA Westway II, Building 3
28. DNA Westway Office Building
29. Eldridge III Office Building Development
30. Emerson Unitarian Church Educational Building (Certified)
31. The MedLeh Group, Equivalent Data Building
32. Falbrooke Building 1
33. Gensler Office Building
34. GT Mickey Leland R&A Building
35. Horizon Wind Energy Corporate Office Building
36. Koll Development, Intellicenter office Building
37. Julia Ideson Library Restoration and Addition
38. Kirksey Corporate Office Building (Certified)
39. Main Rusk Building
40. Oak Park Office Center II

41. One Greens Plaza
42. Parc V Office Building
43. Perkins & Will Houston Office
44. Property Room Replacement Building
45. Remington Square
46. Satterfield & Pontikes Westway Park
47. UT Health Science Center, School of Nursing and Student Community
48. Sheldon Lake Office Building
49. Shell Westhollow
50. Shell Woodcreek Campus, Phase II
51. SpawGlass Corporate Offices (Silver)
52. Stress Engineering Building
53. The Grand
54. The Monarch School
55. The Plaza at Enclave
56. The Seniors Place
57. Thompson Elementary Replacement School
58. Trammell Crow Energy Center Phase 1
59. Trammell Crow Energy Center Phase 2
60. USAISR BHT Joint Center of Excellence
61. Walnut Bend Elementary School
62. St. Cathrin Montessori (Certified)
63. Walter P Moore Office Building
64. Windfern Building 1
65. Woods High School
66. Schlumberger Limited Headquarters (Silver)

66 Non-City owned registered LEED buildings, and 18 City owned LEED buildings, brings 84 LEED building in the City of Houston.

Conclusion

Such an accelerated permitting process for LEED certified building, educational outreach, and the City's Green Building Resolution; put the City of Houston at the forefront in the green building movement. As a leader in green building, the City of Houston will continually promote the building of environmentally friendly buildings, as part of our goal to make Houston the energy efficiency capital of the world, and an environmental leader.