

Building Green/Green Roof Matrix

The City of Chicago's Building Green/Green Roof policy applies to construction projects that receive public assistance or are subject to review by the Department of Planning and Development as a "Planned Development" or a "Lakefront Protection Ordinance Development." The policy is summarized in the matrix below. The matrix illustrates what projects are subject to the policy and what green strategies are being promoted through the policy.

Project Type	Public Assistance: RFPs, Negotiated Sales with land write-down, TIF, Empowerment Zone Grants, DOH	Public Assistance: Bond Issues, Class 6b, SBIF, Enterprise Zone Facility Bonds, Bank Participation Loans	No Public Assistance: Planned Developments, Lakefront Protection Ordinance Developments
RESIDENTIAL			
Market Rate SF, TH, Multi-units < 4 units	Energy Star <i>or</i> LEED certification		
Market Rate => 4 units	50% Green Roof and Energy Star Certification <i>or</i> LEED Certification*	50% Green Roof and Energy Star Certification*	25% Green Roof*
> 20% Affordable Units or CPAN	DOH Green Criteria		
INSTITUTIONAL			
Hospitals	50% Green Roof <i>or</i> 25% Green Roof and LEED Certification*	>25% Green Roof <i>or</i> 10% Green Roof and LEED Certification*	25% Green Roof <i>or</i> 10% Green Roof and LEED Certification*
Community Centers & Schools**			25% Green Roof <i>or</i> 10% Green Roof and LEED Certification*
INDUSTRIAL	10% Green Roof <i>or</i> Energy Star Roof and LEED Certification	>10% Green Roof and Energy Star Roof	
COMMERCIAL			
Retail > 10,000 s.f.***	75% Green Roof <i>or</i> 50% Green Roof and LEED Certification*	50% Green Roof <i>or</i> 25% Green Roof and LEED Certification*	50% Green Roof*
Retail < 10,000 s.f.	25% Green Roof <i>or</i> LEED Certification*	Energy Star Roof	Energy Star Roof
Office > 80 feet	100% Green Roof	75% Green Roof*	50% Green Roof *
Office < 80 feet	50% Green Roof <i>or</i> Energy Star Roof and LEED Certification	Energy Star Roof	

Legend:

SF= Single family

TH= Townhouses

RFP= Request for Proposals

TIF= Tax Increment Financing

SBIF= Small Business Improvement Fund

DOH= Department of Housing

CPAN= Chicago Partnership for Affordable Neighborhoods

The Chicago Standard

The City of Chicago has adopted The Chicago Standard to guide the design, construction, renovation, operation and maintenance of municipal facilities in a manner that provides healthier indoor environments, reduces operating costs and conserves energy and resources. A copy of The Chicago Standard is attached as a PDF file below.

The Chicago Standard is based on selected points from the LEED™ (Leadership in Energy & Environmental Design) Green Building Rating System that are reasonable and appropriate for Chicago. Adoption of the standard will result in LEED Certified buildings that save 15 to 20 percent in energy costs annually, conserve water and other natural resources, and provide healthier, more productive indoor environments.

Mayor Richard M. Daley officially announced The Chicago Standard in his welcoming remarks to the American Institute for Architects' national convention, held in Chicago in June 2004. (The Mayor's remarks are attached as a PDF file below.) By establishing green building standards for City facilities, The Chicago Standard will help Chicago build a base of architects and contractors experienced in sustainable design and construction.

Although originally developed for use in the City of Chicago's municipal facilities, The Chicago Standard can be used as a guide for any construction or renovation project, public or private. It is hoped that private developers and contractors will use The Chicago Standard as a guideline for building green.



[Chicago Standard](#)

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[Remarks of Mayor Richard M. Daley to AIA \(6/10/04\) \(8 KB\)](#)

ALTERNATE CREDITS

The Credits listed below are from the LEED Green Building Rating System for New Construction & Major Renovations, Version 2.1, dated November 2002. These Credits are not specified in The Chicago Standard; however, they should be reviewed for applicability on a project-by-project basis and used as replacement points in the event that any points from The Chicago Standard are not achievable. Earning points for some or all of the Credits below, in addition to meeting the requirements of The Chicago Standard, may make a building eligible for a LEED Silver, Gold or Platinum rating. Design teams are encouraged to use the Alternate Credits in this way to achieve the highest possible LEED rating. Detailed information about requirements of the Credits can be found at www.leedbuilding.org.

SUSTAINABLE SITES

- Development Density (LEED Credit 2)
- Brownfield Redevelopment (LEED Credit 3)
- Alternative Transportation: Alternative Fuel Vehicles (LEED Credit 4.3)
- Reduced Site Disturbance: Protect or Restore Open Space (LEED Credit 5.1)
- Reduced Site Disturbance: Development Footprint (LEED Credit 5.2)
- Stormwater Management: Treatment (LEED Credit 6.2)

WATER EFFICIENCY

- Water Efficient Landscaping: Reduce by 50% (LEED Credit 1.1)
- Water Efficient Landscaping: No Potable Use or No Irrigation (LEED Credit 1.2)
- Innovative Wastewater Technologies (LEED Credit 2)
- Water Use Reduction: 30% Reduction (LEED Credit 3.2)

ENERGY PERFORMANCE

- Optimize Energy Performance (LEED Credits 1.2 - 1.9)
- Renewable Energy: 5% (LEED Credit 2.1)
- Renewable Energy: 10% (LEED Credit 2.2)
- Renewable Energy: 20% (LEED Credit 2.3)

MATERIALS & RESOURCES

- Building Reuse: Maintain 100% of Existing Walls, Floors and Roof (LEED Credit 1.2)
- Building Reuse: Maintain 100% of Shell/Structure & 50% of Non-Shell/Non-Structure (LEED Credit 1.3)
- Construction Waste Management: Divert 75% from Landfill (LEED Credit 2.2)
- Resource Reuse: 5% (LEED Credit 3.1)
- Resource Reuse: 10% (LEED Credit 3.2)
- Recycled Content: 10% (post-consumer + 1/2 post-industrial) (LEED Credit 4.2)
- Regional Materials: 50% Extracted Regionally (LEED Credit 5.2)
- Rapidly Renewable Materials (LEED Credit 6)

INDOOR ENVIRONMENTAL QUALITY

- Ventilation Effectiveness (LEED Credit 2)
- Controllability of Systems: Perimeter Spaces (LEED Credit 6.1)
- Controllability of Systems: Non-Perimeter Spaces (LEED Credit 6.2)
- Thermal Comfort: Permanent Monitoring System (LEED Credit 7.2)

INNOVATION & DESIGN PROCESS

- Innovation in Design (LEED Credits 1.3 and 1.4)



City of Chicago
Richard M. Daley, Mayor

The Chicago Standard

The Chicago Standard consists of 46 practices and technologies from the LEED rating system that are reasonable and appropriate for the design, construction, renovation and operation of buildings in Chicago. As in LEED, these practices and technologies are organized in six categories:

Sustainable Sites

Practices for sustainable site development include selecting sites that are not environmentally sensitive; designing the building with a minimal footprint to minimize site disruption; designing the site to maintain natural stormwater flows by promoting infiltration; using vegetated surfaces and open-grid paving or high-reflecting materials to reduce heat absorption; and selecting a site and providing amenities to encourage occupants' use of alternative modes of transportation.

Water Efficiency

Strategies for maximizing water efficiency within a building include using innovative technologies such as ultra low-flow fixtures and occupant sensors, and reusing stormwater and greywater for non-potable applications such as toilet and urinal flushing, mechanical systems, irrigation, and custodial uses.

Energy & Atmosphere

Practices for enhancing energy efficiency include engaging a commissioning authority and adopting a commissioning plan to ensure that building systems operate as intended; designing the building envelope and systems to maximize energy performance; and providing at least 50 percent of the building's electricity from renewable energy technologies on-site or off-site. Practices for reducing ozone depletion include installing heating, ventilation, air conditioning, and refrigeration equipment that uses no chlorofluorocarbons (CFCs) or hydrochlorofluorocarbons (HCFCs).

Materials & Resources

Strategies for conserving resources include reusing existing buildings; establishing goals for landfill diversion and adopting a construction waste management plan to achieve those goals; using regionally-produced materials and materials with recycled content; and installing Forest Stewardship Council-certified wood-based materials and products.

Indoor Environmental Quality

Practices that improve indoor environmental quality include developing and implementing an Indoor Air Quality (IAQ) Management Plan for the construction and pre-occupancy phases of the building; specifying low-VOC materials and products in construction documents; and designing the building to maximize interior daylighting and views.

Innovation & Design Process

Practices that reflect innovation in design—such as those that substantially exceed an energy performance or water efficiency level specified by LEED—may be awarded additional points by the USGBC.

CONSTRUCTION AND RENOVATION

The construction and renovation standards listed below are from the LEED Green Building Rating System for New Construction & Major Renovations, Version 2.1, dated November 2002. Each standard is labeled either a "Prerequisite" or a "Credit." Prerequisites, such as Sustainable Sites/Erosion & Sedimentation Control, are required by The Chicago Standard. Credits, such as Sustainable Sites/Site Selection, are worth one point each, except where otherwise indicated; a total of 26 construction and renovation points is required by The Chicago Standard. Alternate Credits, listed at the end of this document, may be substituted for those listed below. Alternate Credits also can be used to supplement the requirements of The Chicago Standard, enabling a building to qualify for a LEED Silver, Gold or Platinum rating. Design teams are encouraged to use the Alternate Credits in this way to achieve the highest possible LEED rating.

SUSTAINABLE SITES

- Erosion & Sedimentation Control (LEED Prerequisite 1)
- Site Selection (LEED Credit 1)
- Alternative Transportation: Public Transportation Access (LEED Credit 4.1)
- Alternative Transportation: Bicycle Storage & Changing Rooms (LEED Credit 4.2)
- Alternative Transportation: Parking Capacity (LEED Credit 4.4)
- Stormwater Management: Rate and Quantity (LEED Credit 6.1)
- Heat Island Effect: Non-Roof (LEED Credit 7.1)
- Heat Island Effect: Roof (LEED Credit 7.2)
- Light Pollution Reduction (LEED Credit 8)

WATER EFFICIENCY

- Water Use Reduction: 20% Reduction (LEED Credit 3.1)

ENERGY & ATMOSPHERE

- Fundamental Building Systems Commissioning (LEED Prerequisite 1)
- Minimum Energy Performance (LEED Prerequisite 2)
- CFC Reduction in HVAC&R Equipment (LEED Prerequisite 3)
- Optimize Energy Performance: 20% New Bldgs./10% Existing Bldgs. (LEED Credit 1.1, worth 2 points)
- Additional Commissioning (LEED Credit 3)
- Ozone Protection (LEED Credit 4)
- Measurement and Verification (LEED Credit 5)
- Green Power (LEED Credit 6)

Detailed information about the requirements of these Prerequisites and Credits can be found at www.leedbuilding.org.

INDOOR ENVIRONMENTAL QUALITY

- Minimum IAQ Performance (LEED Prerequisite 1)
- Environmental Tobacco Smoke Control (LEED Prerequisite 2)
- Carbon Dioxide Monitoring (LEED Credit 1)
- Construction IAQ Management Plan: During Construction (LEED Credit 3.1)
- Construction IAQ Management Plan: Before Occupancy (LEED Credit 3.2)
- Low-Emitting Materials: Adhesives & Sealants (LEED Credit 4.1)
- Low-Emitting Materials: Paints and Coatings (LEED Credit 4.2)
- Low-Emitting Materials: Carpet (LEED Credit 4.3)
- Low-Emitting Materials: Composite Wood (LEED Credit 4.4)
- Indoor Chemical & Pollutant Source Control (LEED Credit 5)
- Thermal Comfort: Compliance with ASHRAE 55-1992 (LEED Credit 7.1)
- Daylight & Views: Daylight 75% of Spaces (LEED Credit 8.1)
- Daylight & Views: Views for 90% of Spaces (LEED Credit 8.2)

FURNITURE, FIXTURES & EQUIPMENT

The furniture, fixtures and equipment Credits listed below are from the pilot version of the LEED Rating System for Commercial Interiors, dated July 2002. These Credits set energy efficiency requirements for equipment and appliances, and recycled content and emissions requirements for furniture and furnishings. Achieving these Credits will not result in any additional LEED certification, but is good practice for any type of building. Detailed information about the Credits can be found at www.leedbuilding.org.

ENERGY & ENVIRONMENT

Optimize Energy Performance: Equipment & Appliances (LEED Credit 1.4)

MATERIALS & RESOURCES

Recycled Content: Use 5% post-consumer or 10% post-consumer + post-industrial (LEED Credit 4.1)

OPERATION AND MAINTENANCE

The operation and maintenance Credits listed below are from the pilot version of the LEED Rating System for Existing Buildings, dated January 2002. Achieving these Credits will not result in any additional LEED certification, but is good practice for any type of building. Detailed information about the Credits can be found at www.leedbuilding.org.

SUSTAINABLE SITES

- Green Site and Building Exterior Management to Reduce Impact on Local Environments (LEED Credit 9.1)
- Low Impact Site and Building Exterior Chemical/Fertilizer/Pest Management Program (LEED Credit 9.2)

ENERGY & ENVIRONMENT

- Continuous Commissioning and Maintenance (LEED Credit 3)

MATERIALS & RESOURCES

- Storage & Collection of Recyclables (LEED Prerequisite 1)
- Building Reuse: Maintain 75% of Existing Walls, Floors and Roof (LEED Credit 1.1)
- Construction Waste Management: Divert 50% from Landfill (LEED Credit 2.1)
- Recycled Content: 5% (post-consumer + 1/2 post-industrial) (LEED Credit 4.1)
- Regional Materials: 20% Manufactured Regionally (LEED Credit 5.1)
- Certified Wood (LEED Credit 7)

INNOVATION & DESIGN PROCESS

Innovation in Design (LEED Credits 1.1 and 1.2)
LEED Accredited Professional (LEED Credit 2.1)

INDOOR ENVIRONMENTAL QUALITY

Low-Emitting Materials: Furniture and Furnishings (LEED Credit 4.5)

INDOOR ENVIRONMENTAL QUALITY

- Green Housekeeping (LEED Credit 5)