



LEED IMPLEMENTATION GUIDE

FOR DESIGN PROFESSIONALS

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LEED BD+C CERTIFICATION

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LEARNING OBJECTIVES





LEED-V.4.1



How does the LEED Rating System Works



LEED-BD+C Categories



LEED-Minimum Program Requirements



LEED V.4.1

LEED v4.1 is the next generation standard for green building design, construction, operations and performance

LEED helps buildings to focus on efficiency and leadership to deliver the triple bottom line returns of people, planet and profit.

Today's version of LEED, LEED v4.1, raises the bar on building standards to address energy efficiency, water conservation, site selection, material selection, day lighting and waste reduction.

Ensures that all building stakeholders – developer, property manager, occupant and the community benefit from sustainable design, construction, operations and performance.

Emphasizes integrative design to ensure better design, translation of design into high quality construction, optimize operations and high performance of a building.

Helps buildings deliver higher quality beyond market practices by incorporating innovative design, technologies, construction and material selection strategies.

Focuses on both performance oriented sustainable strategies and outcomes.

Helps buildings reduce their GHG/carbon emissions.

Prioritizes sustainable materials, helping manufacturers to design, produce and deliver building materials that reduce a building's environmental impact. LEED v4.1 also helps manufacturers reduce energy, water, waste during manufacturing, carbon footprint during distribution and transportation and overall carbon emissions through the entire production lifecycle.

HOW DOES THE LEED RATING SYSTEM WORK?

LEED Adaptations



LEED BD+C - It's appropriate for new construction projects, major renovations, Core & Shell buildings and School Projects.

LEED ID+C - Its main focus is the commercial interiors projects.

Residential BD +C : Part of the BD+C rating system, Residential BD+C addresses residential buildings that are new construction or major renovation.

Cities & Communities : Plan and Design. New cities and communities that are in the planning/designing stage.

LEED O+M : This rating system is for buildings that are fully operational and occupied for at least one year

LEED BD+C CATEGORIES

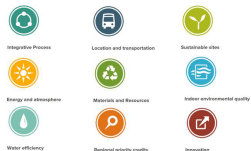


Figure 1: LEED-DBB Categories

Location & Transportation

This category rewards thoughtful decisions about building location, with credits that encourage compact development, alternative transportation, and connection with amenities such as restaurants and parks.

Sustainable Sites

The Sustainable Sites category focuses on the environment surrounding the building, awarding credits for projects that emphasize the vital relationships among buildings, ecosystems, and ecosystem services. It focuses on restoring project site elements, integrating the site with local and regional ecosystems, and preserving the biodiversity that natural systems rely on.

Water Efficiency

The Water Efficiency section addresses water holistically, looking at indoor use, outdoor use, specialized uses, and metering. The section is based on an "efficiency first" approach to water conservation.

Energy & Atmosphere :

The Energy and Atmosphere category approaches energy from a holistic perspective, addressing energy use reduction, energy-efficient design strategies, and renewable energy sources.

Material & Resources :

The Materials and Resources credit category focuses on minimizing the embodied energy and other impacts associated with the extraction, processing, transport, maintenance, and disposal of building materials. The requirements are designed to support a life-cycle approach that improves performance and promotes resource efficiency.

LEED BD+C CATEGORIES +



Indoor Environmental Quality :

The Indoor Environmental Quality category rewards decisions made by project teams about indoor air quality and thermal, visual, and acoustic comfort. Green buildings with good indoor environmental quality protect the health and comfort of building occupants.

Innovation :

Sustainable design strategies and measures are constantly evolving and improving. New technologies are continually introduced to the marketplace, and up-to-date scientific research influences building design strategies. The purpose of this LEED category is to recognize projects for innovative building features and sustainable building practices and strategies.

Regional Priority :

Because some environmental issues are particular to a locale, volunteers from USGBC chapters and the LEED International Roundtable have identified distinct environmental priorities within their areas and the credits that address those issues. These Regional Priority credits encourage project teams to focus on their local environmental priorities.

Integrative Process :

Beginning in pre-design and continuing throughout the design phases, identify and use opportunities to achieve synergies across disciplines and building systems.

LEED MINIMUM PROGRAM REQUIREMENTS



All projects applying for LEED certification must meet a set of minimum program requirements (MPRs) to determine project eligibility for LEED. Minimum program requirements define the types of buildings that LEED was designed to evaluate.

Minimum Program Requirement #1: Must be in a permanent location on existing land

Intent:

The LEED rating system is designed to evaluate buildings, spaces, neighborhoods, communities and cities in the context of their surroundings. A significant portion of LEED requirements are dependent on the project's location, therefore it is important that LEED projects are evaluated as permanent structures. Locating projects on existing land is important to avoid artificial land masses that have the potential to displace and disrupt ecosystems.

Requirements:

All LEED projects must be constructed and operated on a permanent location on existing land. No project that is designed to move at any point in its lifetime may pursue LEED certification. This requirement applies to all land within the LEED project.

LEED MINIMUM PROGRAM REQUIREMENTS+



Minimum Program Requirement #2: Must use reasonable LEED boundaries

Intent:

The LEED rating system is designed to evaluate buildings, spaces, neighborhoods, communities and cities and all environmental impacts associated with those projects. Defining a reasonable LEED boundary ensures that project is accurately evaluated.

Requirements:

The LEED project boundary must include all contiguous land that is associated with the project and supports its typical operations. This includes land altered as a result of construction and features used primarily by the project's occupants, such as hardscape (parking and sidewalks), septic or stormwater treatment equipment, and landscaping.

The LEED boundary may not unreasonably exclude portions of the building, space, or site to give the project an advantage in complying with credit requirements. The LEED project must accurately communicate the scope of the certifying project in all promotional and descriptive materials and distinguish it from any non-certifying space.

LEED MINIMUM PROGRAM REQUIREMENTS+

Minimum Program Requirement #3: Must comply with project size requirements

Intent:

The LEED rating system is designed to evaluate buildings, spaces, or neighborhoods of a certain size. The LEED requirements do not accurately assess the performance of projects outside of these size requirements.

Requirements:

LEED BD+C and LEED O+M Rating Systems: The LEED project must include a minimum of 1,000 square feet (93 square meters) of gross floor area.

LEED ID+C Rating Systems: The LEED project must include a minimum of 250 square feet (22 square meters) of gross floor area.

LEED for Neighborhood Development Rating Systems: The LEED project should contain at least two habitable buildings and be no larger than 1500 acres.

LEED for Homes Rating Systems: The LEED project must be defined as a "dwelling unit" by all applicable codes. This requirement includes, but is not limited to, the International Residential Code stipulation that a dwelling unit must include "permanent provisions for living, sleeping, eating, cooking, and sanitation."



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