GREEN CITY GROWERS

A GUIDE TO LEED CREDITS FOR YOUR ON-SITE VEGETABLE GARDEN

With the rise in demand for resource efficiency, proper indoor air quality, lower energy bills, green buildings are the new standard for the construction industry. Leadership in Energy and Environmental Design (LEED) is a third-party certification program for green buildings developed by the U.S. Green Building Council (USGBC).

LEED certification encourages innovation in sustainable urban development by awarding credits to projects that satisfy requirements in categories such as Sustainable Sites, Water Efficiency, and Indoor Environmental Quality. LEED-designed work and living places stimulate resource efficiency and productive communities. Those who pursue certification benefit from instant name recognition, amongst many other merits, including:

- Long-term wellness and environmental payoff
- Possible tax incentives
- High return-on-investment
- Increased marketability

THE CASE FOR A LEED-CERTIFIED ONSITE GARDEN

Beyond reaping the many benefits of being accredited by the most widely used third-party, green-building certification program, specifically having a garden on your site could earn your project up to six credits towards your certification track. Whether your intent is to provide fresh produce for a community, restore habitat and foster biodiversity, or promote healthy lifestyle choices in office workers by implementing a corporate wellness program, LEED emphasizes the value of having a garden, and rewards its pursuers accordingly.

While there is no universal value that LEED certification will bring to a building project, green buildings are more cost-effective, and have a higher return on investment than outdated standards.

EARNING LEED CREDITS

Having a garden on your site could earn your project up to six credits towards your LEED certification track.

WHO GETS LEED CERTIFIED?

LEED has certification tracks for five different project types:

- Building Design and Construction (BD+C)
- Interior Design and Construction
- Building Operations and Maintenance
- Neighborhood development
- Homes

Whether you are planning a mixed-use redevelopment project for a neighborhood or in the process of constructing a new building, you are able to accrue credits towards certification. The information provided in this guide is intended for Building Design and Construction (BD+C) building projects that are either being newly constructed or experiencing major renovations. It may also be applied to other project type classifications, however.

POSSIBLE LEED CREDITS

Sites with an on-site vegetable garden are eligible for up to 6 LEED credits in four categories. This guide outlines the criteria for accreditation for the following:

- Local Food Protection (1 Credit)
- Social Equity Within the Community (1 Credit)
- Heat Island Reduction (2 Credits)
- Site Development - Protect or Restore Habitat (2 Credits)

All information in this guide is drawn directly from the U.S. Green Building Council's LEED website.

617.776.1400
info@greencitygrowers.com
www.greencitygrowers.com

LOCAL FOOD PRODUCTION

The LEED v3 2009 program released a pilot credit for Local Food Production to better human health. This project is intended to improve human nutrition and inform the community about sustainable, small-scale food production.

RULES FOR ACCREDITATION

- "At least 5% of the site's vegetated area (excluding preserved or restored habitat area) but no less than 250 square feet.
- At least one square foot per Full Time Equivalent (excluding visitors) but no less than 200 square feet.
- For urban projects with a minimum density of 1.5 Floor Area Ratio (FAR), at least 15% of useable roof top surface area (excluding mechanical equipment, skylights, roof drains, window washing staging, emergency egress routes, etc. and private balconies or decks) but no less than 200 square feet.
- Prepare and distribute required Integrated Pest Management (IPM) practices for project-specific use to all users and homeowners.
- Herbs used for food preparation shall not exceed 25% of the area requirement. All projects shall include at least three differing production crops.
- Maintain a record log of means and methods of Integrated Pest Management (IPM) or necessary alternatives to address site specific issues. Provide universal advance notification of chemical applications.
- Permanent infrastructure must be provided. As applicable, provide and document solar access, fencing, watering systems, garden bed enhancements (such as raised beds), sufficient growing medium, secure storage space for tools, and pedestrian access for these spaces. A three- year commitment to the program must be documented. In the event that users are not utilizing and managing the food production area, the owner, property manager or HOA shall be responsible for annually implementing and maintaining the program."

GCG designs, builds, and installs a variety of edible growing systems, as well as provides continued maintenance services to ensure your edibles thrive. Our crew of build experts have the experience to ensure the highest quality products for growing your own, with seamless installation procedures to fit any budget or schedule. We offer raised beds for both ground level and rooftop gardening, and collaborate with green roofing companies for the installations of integrated green roof systems.

617.776.1400
info@greencitygrowers.com
www.greencitygrowers.com

SOCIAL EQUITY WITHIN THE COMMUNITY

This credit encourages the nurturing of healthier communities, and may be fulfilled by identifying and working with an existing advocacy or service nonprofit, and strategizing ways in which your project can improve social equity. For example, your project can collaborate with a local, not-for-profit food bank, and donate the food that is produced on your rooftop garden to the organization.

RULES FOR ACCREDITATION

Option 1: Complete the SEED Evaluator Parts 1 and 2

- "The Social Economic Environmental Design Network is a non-profit organization dedicated to supporting a "culture of civic responsibility and engagement in the built environment and the public realm." The SEED Evaluator is a tool to help "designers, project developers, community leaders and others who desire a common standard to guide, measure, evaluate and certify the social, economic and environmental impact of design projects.

Option 2: Partner with Existing Service/Advocacy Organizations

- Define the geographic (people who live and work near your project) and functional (visitors, contractors, operations staff, etc.) communities of your site. Community can be defined by other types of affinities or commonalities, such as age, religion, ethnicity, income level, homelessness, education levels, etc.
- Identify and engage with one or more non-profit organizations that work directly with this community. Qualifying organizations must have a mission that is directly related to social equity issues and must conduct direct community outreach and engagement with your targeted community component.
- Implement a strategy that improves social equity within the populations you have targeted within your community, and must include:
    - Provision or improvement of space
    - Provision of equipment or services
    - Regular on-going programming or events
    - Financial contribution [equal] to at least half a cent for every dollar of total construction cost"

Green City Growers are partners with Lovin' Spoonfuls at many of our sites. Lovin' Spoonfuls rescues fresh food and distributes it within the local emergency food system where it can reach those in need. Participants at and committees of your onsite garden can identify and engage with Lovin' Spoonfuls or another food rescue organization to improve social equity within the community.

617.776.1400
info@greencitygrowers.com
www.greencitygrowers.com

HEAT ISLAND REDUCTION

As built infrastructure replaces natural areas, the land becomes more impermeable and susceptible to forming an “island” of spiked surface and atmospheric temperature. LEED’s Heat Island Reduction credit was initiated to decrease effects on microclimates and habitats by minimizing heat islands, which can be accomplished by growing food and native plants on your site.

RULES FOR ACCREDITATION

Meet the following criterion:

- Use the existing plant material or install plants that provide shade over paving areas (including playgrounds) on the site within 10 years of planting. Install vegetated planters. Plants must be in place at the time of occupancy permit and cannot include artificial turf.
- Provide shade with structures covered by energy generation systems, such as solar thermal collectors, photovoltaics, and wind turbines.
- Provide shade with architectural devices or structures that have a three-year aged solar reflectance (SR) value of at least 0.28. If three-year aged value information is not available, use materials with an initial SR of at least 0.33 at installation.
- Provide shade with vegetated structures.
- Use paving materials with a three-year aged solar reflectance (SR) value of at least 0.28. If three-year aged value information is not available, use materials with an initial SR of at least 0.33 at installation.
- Use an open-grid pavement system (at least 50% unbound).
- Install a high-reflectance, vegetated roof

In 2010, Green City Growers collaborated with Recover Green Roofs to begin installing large production farming sites on rooftops. By working with Recover, Green City Growers has been able to utilize structural engineers and green roof technology to allow for the highest possible crop yield grown from high above ground level.

617.776.1400
info@greencitygrowers.com
www.greencitygrowers.com

SITE DEVELOPMENT: PROTECT OR RESTORE HABITAT

Construction often inhibits habitats from thriving. LEED created the Protect or Restore Habitat credit in an effort to urge building teams to mitigate habitat destruction and promote biodiversity onsite. The LEED credit library states that a vegetated roof surface may earn credit for this project "if the plants are native or adapted, provide habitat, and promote biodiversity.

Consider including edible New England native plants such as:

- Wild Leeks/Ramps
- Jerusalem Artichokes
- Wild Strawberries
- Ostrich Fern Fiddleheads

RULES FOR ACCREDITATION

- "Using native or adapted vegetation, restore 30% (including the building footprint) of all portions of the site identified as previously disturbed. Projects that achieve a density of 1.5 floor-area ratio may include vegetated roof surfaces in this calculation if the plants are native or adapted, provide habitat, and promote biodiversity."

Green City Growers chooses certified organic seeds varieties when available, and supports local, sustainably focused farming operations. Our seeds are purchased from Johnny's Selected Seeds - who also offer native, New England edibles. We have also experimented with fiddleheads and ramps at select locations.

617.776.1400
info@greencitygrowers.com
www.greencitygrowers.com