



LEED FOR NEIGHBORHOOD DEVELOPMENT ON CAMPUSES

APPLICABILITY OF LEED FOR COLLEGES AND UNIVERSITIES

Colleges and universities are prime candidates for many of the LEED rating systems. Stable institutions do well to plan for the long term. This involves making decisions about not only what makes the most sense today but what will make the most sense in the future. This kind of forward thinking is perfectly suited to the concept of sustainability. It is commonly said that sustainability is the ability to meet the needs of today without compromising the ability of future generations to meet their needs. For an academic institution, this hits close to home because it is precisely future generations of students who will be impacted by the decisions made today. As centers of education and research, higher education institutions have been early and strong proponents of sustainable design and many have efforts underway to enact green policies and practices.

LEED rating systems are tools that can help institutions plan for the future. For more information on how the different rating systems can be used in a collegiate setting, see the [Roadmap to a Green Campus](#). Colleges and universities often have the unique opportunity to control planning and construction decisions at various levels and set comprehensive, far-reaching objectives for future development. This guide is designed to show how LEED for Neighborhood Development can be a useful tool for certain types of campus development. Whether used for certification, for visioning exercises or to help evaluate current campus performance, LEED for Neighborhood Development can serve as a valuable tool for colleges and universities in developing a blueprint toward sustainability.

It is important to note the distinction between when to use LEED for Neighborhood Development and when to use the Application Guide for Multiple Buildings and On-Campus Building Projects (AGMBC). AGMBC is not a rating system in and of itself but rather an overlay for either New Construction or Existing Buildings: Operations & Maintenance. While LEED for Neighborhood Development is a rating system that evaluates multiple components of a sustainable community, AGMBC contains guidance to help project teams use LEED 2009 to certify buildings individually on the same site on either a new or existing campus where there is one owner or common property management and control. It is applicable to projects where several buildings are constructed at once or in phases, or a single building is constructed in a setting of existing buildings with common ownership or planning with the ability to share amenities or common design features. It is important to choose the system that makes the most sense for the needs of the institution.



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WHAT IS LEED FOR NEIGHBORHOOD DEVELOPMENT?

The LEED for Neighborhood Development Rating System integrates the principles of smart growth, new urbanism and green building into the first national system for neighborhood design. Areas of focus include smart locations featuring transportation alternatives, and preservation of sensitive lands while also discouraging sprawl; a neighborhood design that emphasizes vibrant, equitable communities that are healthy, walkable, and mixed-use; and the design and construction of buildings and infrastructure that reduce energy and water use. LEED for Neighborhood Development is the product of collaboration between the U.S. Green Building Council, the Congress for the New Urbanism, and the Natural Resources Defense Council.

Unlike the other LEED programs, LEED for Neighborhood Development is not designed to rate individual buildings. Rather, it takes into account the connections between buildings and their context as well as the natural environment. The prerequisites and credits are divided into three categories: Smart Location and Linkage, Neighborhood Pattern and Design, and Green Infrastructure and Buildings. All three have prerequisites that are required of all projects and credits that reward performance. Beyond that, there also are ten additional points for Innovation and Design Process (exemplary performance and innovative performance) and Regional Priority Credits.

Smart Location and Linkage encourages communities to consider location, transportation alternatives, and preservation of sensitive lands while also discouraging sprawl.

Neighborhood Pattern and Design emphasizes vibrant, equitable communities that are healthy, walkable, and mixed-use.

Green Infrastructure and Buildings promotes the design and construction of buildings and infrastructure that reduce energy and water use, while promoting more sustainable use of materials, reuse of existing and historic structures, and other sustainable best practices.

Innovation and Design Process recognizes exemplary and innovative performance reaching beyond the existing credits in the rating system, as well as the value of including an accredited professional on the design team.

Regional Priority Credit encourages projects to focus on earning credits of significance to the project's local environment.



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LEED for Neighborhood Development has three stages of certification which relate to the phases of the real estate process:

Stage 1 - Conditionally Approved Plan: provides the conditional approval of a LEED-ND Plan. It is available for projects before they have completed the entitlements, or public review, process. Completing Stage 1 may help projects get support from the local government and from the community.

Stage 2 - Pre-Certified Plan: pre-certifies a LEED-ND Plan and is applicable for fully entitled projects (with all land use approvals granted by the locality) or projects under construction. Completing this review can help projects secure financing, expedited permitting or attract tenants.

Stage 3 - Certified Neighborhood Development: completed projects formally apply for LEED-ND certification to recognize that the project has achieved all of the prerequisites and credits attempted.

The main benefit for a university project to pursue LEED-ND certification for appropriate projects is to distinguish the project and to market its sustainability leadership. Typically, a higher education project seeking certification will register as Stage 2 because universities are generally exempt from local land use review processes but it is important to check the local regulations.

HOW CAN LEED FOR NEIGHBORHOOD DEVELOPMENT BE USED IN A COLLEGIATE/CAMPUS SETTING?

While not specifically designed for universities, LEED for Neighborhood Development can be a useful tool for creating sustainable campuses and there are a variety of ways in which this rating system can be used to facilitate campus development. The program is best suited to colleges and universities that are in the process of expansion, major development, or redevelopment. As a design and construction program, LEED for Neighborhood Development is not intended to rate existing campuses without major development or renovation planned. Whether the goal is to create a new campus, expand an existing one, or develop a nearby area for students with partner organizations, LEED for Neighborhood Development is a resource that can help to further these goals.

USING LEED FOR NEIGHBORHOOD DEVELOPMENT ON CAMPUS

SCENARIO ONE- New Campus

One example of a situation in which LEED-ND might prove to be useful is the development of a new campus. In this case, LEED-ND can be used either as an official



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certification program or as a tool to help guide decision-making. One recent trend that fits in well with LEED-ND is the movement toward building new research and development campuses based on an urban grid. These types of developments might house both university facilities and commercial or office space for partner organizations or companies. Yet another way in which LEED-ND can be used is as a tool for campus planners to evaluate potential sites or development plans.

EXAMPLE: UNIVERSITY OF WASHINGTON: NORTH SOUND CAMPUS

The University of Washington used elements of the LEED-ND rating system to assess four potential sites as a location for a new North Sound Campus. Combining LEED-ND criteria with other considerations, the University established a point system in order to compare the potential sites on a variety of parameters. Once the sites had been evaluated, the planners selected the one that showed the most promise as a connected urban center attractive to potential partner companies and organizations and which required the least amount of infrastructure development. This is an example of how the rating system can be used in the planning process even if the project is not (yet) able to be certified.

SCENARIO TWO- Campus Expansion

Another circumstance in which LEED-ND can be useful is when an established campus is undertaking major development on a smaller subset of existing property or expanding into a new area that is or will soon be under their control. This can either be recently acquired property or an area that was “land banked” until the need arose to expand. This development can take many forms but one applicable scenario is the construction of new faculty housing. As universities strive to draw in new faculty with convenient and affordable housing options near campus, a LEED-ND development provides a framework that may help shape the project.

EXAMPLE: COLUMBIA UNIVERSITY: MANHATTANVILLE

A LEED-ND Stage 1 registered pilot project, the Manhattanville campus will be a 17-acre expansion just north of Columbia’s historic Morningside Heights campus, and consists primarily of four large blocks. The plan includes approximately 6.8 million square feet of space for teaching, research, underground parking, and support services. It features new facilities for civic, cultural, recreational, and commercial activity and its improved, pedestrian-friendly streets and new publicly accessible open spaces will reconnect West Harlem to the new Hudson River waterfront park. The plan incorporates the redevelopment of brownfields in a dense urban setting. The goal is to create an educational environment that is engaged with the surrounding community. This new kind of campus development is well-suited to the principles of LEED-ND.



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SCENARIO THREE- Existing Campuses: Planning or Major Renovation

LEED-ND can be a valuable tool for existing campuses that are expanding or building new within their boundary. Many of the credits in the rating system can be used as criteria for overhauling a campus-wide master plan or deciding the best way to renovate part of an existing campus. Although it was designed as a certification tool, LEED-ND can be useful for evaluating future development and shaping the master planning policy of a college or university. In some cases the entire system might be considered but in others, specific metrics can be pulled out to influence focused planning. Since long-term planning is very important for large institutions with a vested interest in the future, it has become commonplace to include sustainability planning as a part of this. Established campuses with major renovations planned may also do well to consider at least some elements of the LEED-ND rating system even if the project is not conducive to certification due to the scope of the alteration. By considering elements of the rating system like walkability, access to alternative transit, water management, and energy efficiency, universities can use smaller projects to shape the direction of future development. These features help to develop a sustainable campus and may lay the groundwork for eventual certification.

SCENARIO FOUR- Partnerships

There are many different ways in which a college or university could partner with an outside group for the purposes of development. Some of these include a college partnering with a local municipality, non-profit organization, business improvement district (BID), or developer to create a student-friendly neighborhood, a university helping to revitalize the surrounding community, or an institution desirous of attracting businesses to locate within or adjacent to the main campus area.

EXAMPLE: JOHNS HOPKINS UNIVERSITY: ADVISOR TO NON-PROFIT PARTNERSHIP

Johns Hopkins University is an advisor to the East Baltimore Development Initiative, a nonprofit partnership of public and private entities undertaking the master planning and redevelopment of an 88 acre section of East Baltimore near the university campus. The \$1.8 billion project will include a two million square foot research park for biotechnology, 1,500 new and rehabilitated residential units, and new green space, retail uses and a public community school campus. Its mission to, “successfully attract market oriented investment, development, population and enterprise to the East Baltimore community... while equipping community residents with the skills, information and resources they need” incorporates aspects of LEED-ND. This mixed-use type of development will be beneficial to both the university community and local residents.



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EXAMPLE: SYRACUSE UNIVERSITY: PARTNERING WITH A COMMUNITY DEVELOPMENT ORGANIZATION

The SALT District in Syracuse, NY is a project of the Near West Side Initiative, Inc. in partnership with Syracuse University. The Center for Design, Research and Real Estate at the Syracuse University School of Architecture and the Syracuse University Center of Excellence have worked with the Near West Side Initiative to develop a neighborhood plan that focuses on green concepts, and has been able to undertake and complete some green initiatives in the community. The SALT District, which stands for Syracuse Art, Life and Technology, is being revitalized by weaving together creativity and sustainable urban development. The university and its partners are using art, green development, and clean technology to transform this historic Syracuse downtown community into a model for future urban living. The SALT District achieved LEED-ND Stage 1 at the Gold level.

EXAMPLE: THE UNIVERSITY OF CONNECTICUT: LOCAL MUNICIPAL PARTNER

The University of Connecticut is a partner in an ambitious public/private initiative to create a mixed-use town center and main street corridor at the crossroads of the Town of Mansfield, CT and the University. The new development, Storrs Center, will knit quality architecture, pedestrian-oriented streets, and public spaces into a series of small neighborhoods that will make up the new fabric of the town center. A registered LEED-ND 2009 project, Storrs Center is at the beginning of a long development process that will impact both the town and the university. The project focuses on issues that are important to the local area such as conservation of water and the protection of water resources. Because LEED-ND consists of a menu of credits from which to choose, projects can focus on what is relevant to the local community.

EXAMPLE: OREGON HEALTH AND SCIENCE UNIVERSITY: PARTNERING WITH A LOCAL DEVELOPMENT COMMISSION

A Stage 2 LEED-ND registered pilot project, the South Waterfront Central District is a 130-acre neighborhood in Portland, OR currently undergoing intensive redevelopment. Growth in this area is led by the expansion of the Oregon Health and Science University (OHSU) and a wide range of high-density housing opportunities. The entire district embodies the principles of smart growth taking advantage of the neighborhood's location on the river. The Plan includes open space, greenway, and riverfront amenities with emphasis on the wildlife habitat and access for pedestrian and other recreational uses along the Willamette River.

USING LEED FOR NEIGHBORHOOD DEVELOPMENT AS A TOOL

Beyond the certification process, LEED for Neighborhood Development can also be effective as a planning tool. Like the University of Washington's site selection process, elements of the LEED for Neighborhood Development rating system, such as entire prerequisites or specific metrics can be used to inform development decisions,



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determine the best location for new development, or be incorporated into a university plan. The prerequisites necessary for LEED for Neighborhood Development certification may be impossible for some campuses especially those in areas that lack compact design or sufficient connectivity of streets and pathways within the campus. In these cases, many of the credits included in the rating system can be applied as elements of a sustainable plan even if official certification is not possible due to pre-existing conditions.

CURRICULUM

There are a variety of ways in which LEED for Neighborhood Development can be incorporated into the curriculum, either as content for a class or as a hands-on learning experience in a studio-type environment within a variety of departments including architecture, environmental studies, building technology, or planning. Below are examples of universities that have successfully incorporated LEED for Neighborhood Development into their class offerings. The result is that students gain real-world skills that can be applied in the ever-increasing realm of green jobs. These types of offerings are “win-win” situations in which upper-level and graduate students work with a local developer or municipality on sustainable planning. The students gain experience both using sustainability tools and working outside of an academic situation and the partner benefits from the work produced.

- The Center for Urban and Regional Affairs at the University of Minnesota partnered with a citizens group to conduct an assessment of a nearby neighborhood’s sustainability based on LEED for Neighborhood Development.
- The planning department at the University of Utah offers a real estate course in which students are using LEED for Neighborhood Development.
- Central Piedmont Community College offers courses specific to LEED-ND including “Introduction to LEED for Neighborhood Development” and a preparatory class for individuals who want to pursue the LEED AP ND specialty exam.

EXAMPLE: WESTERN WASHINGTON UNIVERSITY

Western Washington University offers an Urban Transitions Studio that consists of a partnership between the Huxley College of the Environment, the City of Bellingham Dept. of Planning and Community Development, and Sustainable Connections (a local non-profit). One of the elements of the studio is the use of LEED-ND to identify sites and complete mixed-use, smart growth redevelopment concepts. Recently, the studios have focused on transit-oriented development and adaptive reuse. The course culminates in the preparation of a professional report and a public presentation at City Hall. This provides real-world experience for students, research to the city, and helps the city to gauge the community’s reaction to potential redevelopments. The program also helps to identify outstanding students for internships with the city.



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Even where classes are not offered, LEED-ND can be used in thesis projects in a number of ways including as a tool for assessing existing developments, in GIS-based research, or as a research topic in and of itself. LEED-ND could also be incorporated into a curriculum as part of a research project that would assess development projects to determine the actual impact of components on residents. This could be an overall assessment or focus specifically on elements like impacts on education, crime, or health.

CONTACT US

Every college and university has a distinct set of opportunities and challenges. If you're interested in pursuing LEED for Neighborhood Development on your campus, please visit www.usgbc.org/neighborhoods for more information and don't hesitate to contact USGBC at neighborhoods@usgbc.org to discuss any questions or ideas.

Further Reading

Roadmap to a Green Campus (PDF)

http://www.centerforgreenschools.org/docs/Roadmap%20to%20a%20Green%20Campus_5.16.11.pdf

Resources

US Green Building Council: LEED-ND Resources

<http://www.usgbc.org/neighborhoods>

Green Building Certification Institute: LEED-ND Certification

<http://www.gbci.org/leednd>

USGBC Center for Green Schools

<http://www.centerforgreenschools.org>

Natural Resources Defense Council

<http://www.nrdc.org/>

Congress for the New Urbanism

<http://www.cnu.org/>