



LEED Commissioning: The Old and the New

USGBC underscores importance of commissioning with LEED Version 3

2009 saw the rollout of a major evolution in the U.S. Green Building Council's (USGBC's) Leadership in Energy and Environmental Design (LEED) green-building rating systems. The five rating systems cover new construction and major renovations, core and shell projects, K-12 schools, commercial interiors, and existing buildings. The oldest of these, LEED for New Construction (LEED-NC), was released as a pilot program in 1998 and more fully developed as Version 2.0 in 2000. LEED Version 3 includes all five of these rating systems.

LEED reference guides also have been updated. The "LEED Reference Guide for Green Building Design and Construction" covers new construction and major renovations, K-12 schools, and core and shell projects. Also available is the "LEED Reference Guide for Green Building Operations and Maintenance" as well as the "LEED Reference Guide for Green Interior Design and Construction," which covers green interior fit-outs.

Some Things Remain the Same

By retaining most of the same credits, the five rating systems are largely unchanged from their earlier 2.0/2.2 versions. The most noticeable change in Version 3 is the standardization of wording and the total number of points available in each rating system. The rating systems typically utilize the same wording structure for the same categories. For example, wording in the commissioning (Cx) category for new-construction projects is the same as that used for green-interior projects.

All of the rating systems have a total of 100 possible base points in the five standard categories, plus six possible innovation points and four regional bonus points for a total of 110 points. All five programs require 40 points to be Certified, 50 for Silver certification, 60 for Gold Certification, and 80 for Platinum Certification.

Cx remains divided into "Fundamental" and "Enhanced" categories. Fundamental Cx continues to include most of the heavy lifting, as it includes the functional-testing requirement. Enhanced Cx remains mostly paperwork, including design and submittal reviews as well as a systems manual. (It still includes the 10-month warranty review,

which has been renamed "Systems Monitoring".)

Fundamental/Enhanced Commissioning

Fundamental Cx remains a mandatory prerequisite for all of the rating systems except LEED for Existing Buildings: Operations and Maintenance (O&M). Version 3 has increased the number of enhanced-Cx points available for all of the other rating systems. For commercial-building, school, and core and shell projects, the points awarded for enhanced Cx have doubled from one to two, which should encourage more owners to incorporate the relatively low-cost option into their action plans. Enhanced Cx for interior fit-outs has increased from one to five points, making this category one of the largest point-earners in the program. This is an important change for urban projects, many of which are high-rise fit-outs required by the never-ending turnover of commercial tenants.

Another beneficial change in Version 3 Cx requirements is the offering of "exemplary performance" points as part of the six possible innovation points. Exemplary-performance points are awarded for exceeding the basic requirements of a given credit, but they are not available for all credits. The fact that Cx is eligible for additional innovation points is a big improvement in the LEED rating systems. A new enhanced-Cx credit also is available for envelope Cx of new construction and major renovations, K-12 schools, and core and shell projects, but the process must be documented thoroughly. This is a commendable testimony by the USGBC to the partnership that exists

between the building envelope and its HVAC systems, as well as the importance of envelope quality assurance.

The incorporation of enhanced Cx credits is a commendable testimony by the USGBC to the partnership that exists between the building envelope and its HVAC systems, as well as the importance of envelope quality assurance.

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Core and shell projects also can be considered for an innovation point under enhanced Cx if the building owner mandates Cx for all of the tenant spaces while they are fitted out. Many tenants will commission their fit-outs anyway because it is a mandatory requirement of LEED for Commercial Interiors (LEED-CI). LEED-CI and O&M programs do not provide exemplary-performance points for Cx (although their basic Cx points still are in place).

LEED for Existing Buildings: O&M Cx requirements have remained the same as those in the previous O&M program. Although Cx no longer is a prerequisite for LEED for Existing Buildings: O&M certification, it still offers six points for each of the three Cx stages.

Bonus Points

Regional bonus points are extra points that are awarded when certain main points are obtained. The main credits that qualify for regional bonus points vary by ZIP code, which makes a brief summary description difficult (multiply five programs by all of the ZIP codes in the United States). Unfortunately for the Cx community, regional bonus points for Cx do not exist—at least none that this author could find after scanning a thousand or so ZIP codes.