

# 10 Critical Changes Project Teams Should Know About LEED® v4

**By Luke Patruno, Project Manager, VCA GREEN**

Evolving codes and standards have caught up to the LEED® (Leadership in Energy and Environmental Design) rating system, compelling the U.S. Green Building Council (USGBC) to raise the bar in sustainable building standards.

The U.S. Green Building Council has recently developed and published its newest version of the LEED rating system, LEED Version 4 (v4), which is replete with significant changes that are setting higher standards for building design and construction. This whitepaper will focus on 10 changes project teams should know about the newest version of LEED.

## 1. USGBC Wants Us to Work Together

An entirely brand new credit category called Integrative Process has been created for all LEED v4 rating systems. This category pertains to the pre-design phase and provides one credit point without any prerequisites.

This credit can only be achieved with cross-disciplinary synergy during the pre-design process and the design phases. The opportunities for synergy should be documented to help draft the Owner's

Project Requirements, Basis of Design, design documents, and construction documents for the project. Accordingly, the LEED v4 Reference Guide for New Construction addresses energy and water related systems, which need to be discussed during the Integrative Process phase.

## 2. A New Credit Category (Kind Of)

A noticeable difference between the latest LEED versions can be discerned in the Sustainable Sites credit category. The 26 possible points that were available for this category in LEED 2009 for New Construction have been divided into two credit categories.

The new category, aptly named Location and Transportation, pertains to all transportation

and community connectivity credits that were previously located in Sustainable Sites. This credit category comes from the LEED for Homes rating system. The Location and Transportation category accounts for sixteen total points; the other ten points remain in

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the Sustainable Sites category. Both the amount of points needed for certification and the thresholds for the different levels of certification remain the same – forty points are still required to achieve certification, fifty points achieve Silver, sixty achieve Gold, and eighty achieve the coveted Platinum.

### 3. Buildings Last Generations So They Better Be Built Right

The Materials and Resources credit category has seen some of the most significant changes in the LEED rating system. Many of the credits have been streamlined into a single cohesive strategy to reduce documentation and make the LEED online experience more user-friendly.

The U.S. Green Building Council has also addressed the issue of transparency found in the previous version of Materials and Resources; green washing of products will no longer be accepted and all manufacturers must go through careful vetting and verification that their products are what they claim to be. The first credit in the category, Building Life-Cycle Impact Reduction, is a combination of the two Building Reuse credits in version 2009 with added options.

### 4. Finally a New Way to Document Green Products

Materials and Resources credits two through four (MRc2 – Environmental Product Declarations, MRc3 – Sourcing of Raw Materials, MRc4 – Material Ingredients) are categorized under Building Product Disclosure and Optimization and they pertain to a project's recycled content calculators

and regional materials (this type of material must now be extracted, manufactured, and purchased within 100 miles of the project).

Environmental product declarations have two option paths that are much more stringent than previous versions of LEED. Using products that meet LEED guidelines in this credit show reductions in environmental impact in their harvesting, manufacture, and use.

### 5. Where Do Your Raw Materials Come From?

Sourcing of Raw Materials, the third credit in the Materials and Resources category, is worth one to two points and has two option paths available for projects. The first option, worth one point, concerns raw material source and extraction reporting.

Manufacturers must adhere to specific guidelines, which include publicly released reports from their raw material suppliers (reports must include raw material extraction locations), commitments to long-term and ecologically responsible land use for their operations, commitments to reduce environmental damage from extraction and/or manufacturing, and a commitment to voluntarily meet applicable standards or programs that address responsible sourcing criteria.

The second option, also worth one point, rewards manufacturers for better manufacturing practices, such as participation in extended producer responsibility programs and the use of bio-

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Demand Response is a voluntary program to permit utilities to reduce energy consumption in portions of the building.

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based materials. These manufacturers can also sell legally harvested sustainable wood (other than the FSC) and use products that are refurbished, salvaged, recycled, or reused.

### **6. Healthier Material Ingredients for Building Occupants**

Material Ingredients is the last credit within the Building Product Disclosure and Optimization category. This credit offers two points and three options – Material Ingredient Reporting, Material Ingredient Optimization, and Product Manufacturer Supply Chain Optimization. All three options require verified documentation of the chemical ingredients of permanently installed products for the project.

If a manufacturer does not have sufficient self-reporting of the chemical ingredients of its products, then approved third parties can report on behalf of the manufacturer.

### **7. We Don't Want to Breathe That**

The Indoor Environmental Quality category has also been streamlined from the previous version. LEED 2009 had four credits, all pertaining to Low-Emitting Materials; LEED v4 has combined these four credits into one, creating a more cohesive category that is easier to document online. The credit, which has two compliance options, has requirements for product manufacturing and addresses volatile organic compound (VOC) content with added requirements for indoor air emissions. Testing methods for determining VOC emissions are also regulated by the USGBC.

### **8. Don't Set Sail Without Commissioning Your Ship**

The Energy and Atmosphere category in the LEED v4 rating system still offers the most points compared to all other credit categories – 33 total points can be awarded to projects, two less than the 2009 version of LEED.

The first prerequisite, now named “Fundamental Commissioning and Verification,” is still somewhat similar to its 2009 counterpart, but now has new criteria. This prerequisite’s intent has been modified so that the project meets the Owner’s Project Requirements related to energy, water, indoor environmental quality, and durability.

### **9. Demanding Response From Our Utilities**

Another new credit in LEED v4’s Energy and Atmosphere category is the Demand Response credit. Demand Response is a strategy where buildings and utilities can reduce the energy they use during peak demand. Demand Response is a voluntary program to permit utilities to reduce energy consumption in portions of the building. This reduces strain on the electrical grid during peak demand.

The credit has two options for compliance, addressing jurisdictions that possess or lack a demand response program. The demand response process shall also be included in the CxA’s scope of work, including at least one test of the demand response plan for both options.

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For projects to earn credit they must comply with the standard for sound transmission or the local building codes, whichever is more stringent.

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### **10. A Sound Idea or Something to Make Noise About**

Acoustic Performance is not new for Schools and Healthcare in the LEED rating system, but it has become a new credit for all other building types. HVAC background noise, sound transmission through adjacent spaces and the work or living spaces of a building's occupants, reverberation time, sound reinforcement, and masking systems are all addressed in this credit.

For projects to earn credit they must comply with the LEED standard for sound transmission or the local building codes, whichever is more stringent. The requirements for compliance vary on building type, space type, and occupancy of the building. ■

#### **Do You Have Questions About LEED® v4? We're Here to Help.**

Please call or email:

**Moe Fakh**, Director of Sustainability.

MFakh@VCA-Green.com • 714.363.4700

