
Project Highlight

The new 72,000 sq ft Administrative Office Building One (AOB-1), the first new building in the New Town Program at the NASA Langley Research Center, sets the standard for the many buildings to come at Langley in the use of technology, sustainable practices, and new workplace quality standards. The building just achieved LEED Platinum certification from the U.S. Green Building Council. To offset the demand for overhead lighting, the design team incorporated aggressive daylighting strategies into the design, including strategic building orientation, a shallow building depth, generous ceiling heights, solar activated light sensors, exterior shading elements that address specific orientation geometries, and customized glazing treatments. A vegetated roof—the first at Langley—reduces heating and air conditioning costs, extends the lifetime of the roof, absorbs 15 to 90 percent of storm water, and reduces noise transfer. On-site renewable energy sources include a Building Integrated Photovoltaic array at the lobby skylight and penthouse roof. As part of an overall campus energy master plan, AOB-1 will offset cooling and heating loads through a geothermal well field - also the first at Langley - and will soon be followed by a similar field to service the next building in the New Town Program, the Integrated Engineering Services Building. (by Tim Coogan, R.M. Thornton, Inc. and Michelle Heim, AECOM)

LEED 2012

U.S. Green Building Council expects to release their next LEED Version on November 7, 2012. The changes will affect the Building Design & Construction, Interior Design & Construction, Building Operations & Maintenance, Homes, and Neighborhood Development Rating Systems. Differences to the LEED 2009 include new prerequisites, new credits, new credit categories, changes to technical content, and revised point distribution. The new credit categories are Integrated Process, Location



NASA New Town Program at Langley Research Center, Administrative Office Building One (AOB-1), Hampton, Va. (WBC Members include AECOM and The Whiting-Turner Contracting Company).

and Transportation (Sustainable Sites remains), and Performance. Performance highlights the importance of on-going operational performance, something previously harshly criticized as missing by opponents of the rating system. The second public comment period is currently open. For additional information, visit www.usgbc.org. (Contributed by Winona Leaman, LEED AP BD+C, GPI/Greenman-Pedersen, Inc.)

LEED vs. 189.1 vs. IGCC

The LEED rating system has experienced an explosive amount of growth in the past ten years. In fact, it is so popular that building contracts have been written requiring a certain level of certification. Unfortunately, LEED was never intended to be used to enforce minimum building requirements. It is also questionable whether or not one can enforce a contract contingent on the voluntary approval of a non-signatory third party.

Seeing this need for an enforceable standard, ASHRAE took the LEED rating system and codified it by rewriting it in normative language. The result is ASHRAE standard 189.1. At one time there was talk that Standard 189.1 would become an alternate compliance path toward LEED certification. The International Code Council has since stepped in and used this standard as a basis for its own green construction code,

the IGCC. Today ASHRAE 189.1 is an optional compliance path for conforming to the IGCC. This is analogous to Standard 90.1 being an optional conformance path to complying with the IECC.

This situation is a bit upside down at the moment since the LEED rating system, ASHRAE 189.1 and the IGCC all define similar requirements. There are even instances where the IGCC can be more stringent than LEED. The rating system is no longer leading the sustainability movement. This identity crisis is why 189.1 did not become an optional compliance path toward LEED certification. This is also why we expect the next version of LEED to substantially raise the requirements for certification. You can expect that compliance with the IGCC will earn a certain number of prerequisite points but that certification will be much more stringent. This will restore LEED's role of leading the industry above and beyond the bare minimum legal requirements defined by the codes. (Contributed by Adam Spatz, P.E., LEED AP BD+C, GPI/Greenman-Pedersen, Inc.) **B**

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