Repairing in a Green Manner —Part 1

LEED® Rating System

Commercial vs. Manufacturing & Energy

Cause
Cost
Downtime
—solutions since 1971

Damage Engineering **INSights**
commercial • energy • infrastructure • manufacturing

This the first part of a two-part series will provide selected insights about the LEED® rating system—the most widely recognized, voluntary, sustainable building rating system in this country—from a damage repair point of view.

LEED's Scope and Methodology

The LEED rating system and accreditation exam were created by the United States Green Building Council (USGBC) to certify buildings and to accredit individuals.

The scope of this building rating system extends beyond the issues of structural integrity, finishes, life safety, and energy building codes typically encountered in repairs. Credits are awarded in the following categories:

- Sustainable sites
- Water efficiency
- Energy & atmosphere
- Material & resources
- Indoor environmental quality
- Innovation & design process

It is designed to continuously be more stringent than the applicable building codes and ordinances, and thereby to continuously increase social responsibility in building design, procurement, construction, and commissioning, as well as the management of buildings and their future restorations.

MAINTAINING CREDIBILITY Project level accountability is created by requiring the building owner or property developer to make an accredited third party—an individual who has passed the LEED accreditation examination, earning the LEED AP designation—responsible for the building's certification review.

To ensure that all the building systems work as a whole and meet the rating criteria, the building is commissioned. Measured results of the various individual systems' performance are reconciled to the building's design objectives through a computer-simulated energy model.

COST IMPACT Levels of sustainability range from enhanced buildings (certified and silver) to high and highest performing buildings (gold and platinum). They represent different levels of excellence above current building codes, and the resulting gaps are typically closed by the following methods:

Certified: higher efficiency lighting and HVAC systems, material selection (low emitting, recycled content) and recycling of construction debris

Silver: additional energy and water use reductions

Gold: improving roof coating, glazing, plumbing, lighting, and HVAC systems

Platinum: often site specific and involving energy sources such as geothermal or photovoltaic, and other measures such as on-site waste or storm water treatment

COMMERCIAL VS. MANUFACTURING & ENERGY We expect voluntary social responsibility rating systems, such as LEED, will stay focused on buildings and will be encountered most often in the building-dominated commercial sector.

Why? Price competition in the energy and manufacturing sectors has always minimized energy usage; legislation and unions have already driven considerable social responsibility in the machinery- and equipment-dominated manufacturing and energy sectors.

Hence, the application of LEED to typical manufacturing and energy plant repairs will be to the building, not the production or generating machinery and equipment. As in the building dominated commercial sector, the focus will typically be on the building envelope, lighting, HVAC, plumbing, and interior finishes.

Part 2 will focus on the cost and logistical impact of sustainability on conventional repairs and the significance of the LEED AP designation. Meanwhile, don't hesitate to call us about sustainable repairs. The breadth of our damage engineering practice keeps us at the cutting edge of the economy: We are always dealing with a very wide variety of damage at commercial, manufacturing, energy, technology, and infrastructure sites.

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