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WHAT IS GREEN BUILDING AND WHY IS IT IMPORTANT?

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EDITOR'S NOTE: This article is the second in a series on green building that first appeared on ISOPro, ISO's website designed to share information with underwriters, risk managers, and loss control personnel interested in managing property risk. In this article, Xactware Assistant Vice President Mike Fulton and AIR Senior Construction Specialist Rob Caron define "green building" and discuss its growing role in the construction industry. The article was motivated by the need to inform insurance professionals about the growing green building trend and to focus research into how best to incorporate the various levels of green building options into 360Value®, ISO's property valuation solution developed by AIR and XactWare.

By Mike Fulton and Rob Caron

The phrase "green building" is everywhere. Builders, property owners, realtors, bankers, insurers, and lawyers are latching on to the term and using it in the context of their respective professions. But does everyone who talks about green building really understand what it means?

The simplest definition of green building is to build in a way that minimizes environmental impact and creates a healthy indoor environment for occupants. As energy prices continue to climb and more people become aware of their personal impact on the environment, green building has moved from the fringe to the mainstream of the construction industry. It has become a trend that will affect builders, property owners, and insurers for years to come.

GREEN INSURANCE

Insurance and other professional service providers are already responding to the popularity of green building. Some insurers offer green-upgrade insurance, where homeowners pay an additional 2 to 3 percent premium on top of their regular homeowners insurance to cover the added expense of rebuilding green in the event of a loss.

Other insurance products cover specific green aspects of a home, such as on-site electricity production. Those policies address gray areas within the green building movement, such as where responsibility lies for failure to attain a specified green rating (such as LEED certification) or if a building doesn't perform as expected. Most traditional liability policies would not cover those issues, so some insurers offer green liability coverage.

MULTIPLE SHADES OF GREEN

One of the predominant reasons green building confuses some people is because it can apply to so many different construction techniques and materials. One objective of green building is to provide occupants with clean air to breathe, while minimizing resources consumed by the building during its construction and lifetime.

This means building green may be as simple as building a conventional house using best practices and positioning it to take advantage of the sun. Or it could mean using alternative or recycled materials; or ensuring that energy needs are met by alternative sources, such as wind turbines and solar panels; or using an oil-fired heating system but incorporating a living roof. There is no single characteristic or material that categorically defines green building.

Many common building materials either contain substances harmful to human health or release such substances during their manufacture. A large part of green building focuses on

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finding natural or less harmful alternatives, such as plywood made without formaldehyde-based glues, natural fiber-based insulation instead of fiberglass, or bamboo-based products in place of tropical hardwoods.

Another significant element of green building centers on energy use, both in the manufacture of building materials and in the lifespan of the structure. That typically means using better insulation, minimizing the quantity of materials used, and choosing materials with low embodied energy (the energy required to produce and deliver the product) or with a high lifetime-to-embodied-energy ratio.

Although green building is becoming a specialty in the construction industry, many traditional builders might be surprised to learn that the best practices they already use are considered green. For example, carefully installing insulation to prevent drafts and cold spots, installing proper flashing around openings and penetrations, and implementing moisture-management techniques all fall under the umbrella of green building. All these best-use techniques challenge the misperception that green building costs more than traditional building.

GREEN CERTIFICATION

Many structures can contain green building materials and attributes but may not technically qualify as green. That is where formal green certification comes into the picture. The two most widely accepted standards in the United States are the U.S. Green Building Council's LEED system and the National Association of Home Builders' National Green Building ProgramTM. Both standards provide a green ranking based on the materials and methods used in planning and building the structure. Proponents of the certifications argue that, when a building attains a certified level of "green," it can attract tenants, increase rental or resale values, and provide a more productive space for occupants.

The concept of green building is constantly evolving. To appreciate its effect on the construction and insurance industries, one must combine a general understanding of the concept with details on new green building materials and labor techniques, green building certifications, and various green building trends for commercial and residential properties.

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