

## Keeping Green Building from Becoming Risky Building

How can “going green” be risky? Isn’t it always a good idea to save money and build energy-efficient and sustainable structures? Yes, but there are also risks and costs that cities may need to be aware of. A recent presentation at the NLC-RISC Trustees Conference explored this in a session titled “The Risks of Building Green”, by Richard Scott of Liberty Building Forensics Group.

Building “green” sure seems like a great idea, and in many respects it is. Saving money on heating or cooling, reducing reliance on fossil fuels, increased comfort of the inhabitants, and good global citizenship among others. But while it is a noble goal it can also be a somewhat risky endeavor. LEED (Leadership in Energy and Environmental Design) certification is seen as the “gold standard” for designing energy efficient buildings, but the simple fact is that LEED doesn’t take into account all of the issues that may occur because of the energy efficiencies. Much of the technology and methods of building promoted by LEED are new, and many have not received lengthy testing. Many of the very techniques and materials that ensure LEED certification can also lead to severe problems with mold and moisture, especially in damper climates. After all, LEED Certification is a national one – and doesn’t take into account the regional weather differences.

Some of the possible unintended consequences or costs of going green have been known to include:

- Building materials selected to achieve LEED status have been known to experience substantial rainwater penetration.
- Tight air controls feed the growth of mold in wall cavities.
- Energy saving products and insulating materials seal so tightly that water leaks are not seen until significant damage has occurred.
- Vegetative roofs have many known claims for water damage, as well as fires from fuel cells and roof-top brush fires.
- Poor indoor air quality – both from mold and water damage but also from fertilizer and pollen from vegetative building surfaces.
- The higher cost of building materials can lead to associated higher cost of property insurance premiums.
- A LEED certified building that is damaged must go through the entire process again to be re-certified, including engineering and consulting costs as well as permit and application fees.
- Recycling debris is required for LEED certification but is often more costly than a land fill.

To avoid wasting money and keep some of these issues from occurring, the experts recommend focusing early in your planning on some fairly straightforward steps.

Select a design and build team that is willing to incorporate other best practices – waterproofing, humidity control, moisture and mold avoidance – along with the LEED Certification standards. Work with them to develop a green risk management plan that might include the following:

- Project green goals – definable and measurable for all stakeholders, including evaluation of success
- Roles, responsibilities, and liabilities
- Any unique contract, legal or insurance issues
- Response plan to potential problems
- Warrantees, guarantees, standards

Where to go for help? As always contact your CIS Risk Management Consultant for specific questions, but here are some additional resources:

[www.libertybuilding.com](http://www.libertybuilding.com)

[www.greenbuildinglawupdate.com](http://www.greenbuildinglawupdate.com)

[www.enr.com](http://www.enr.com)

[www.usgbc.com](http://www.usgbc.com)

[www.greenglobes.com](http://www.greenglobes.com)

[www.thegbi.com](http://www.thegbi.com)