

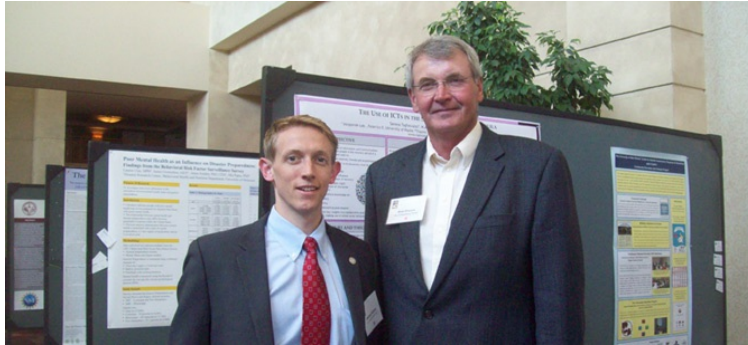


Green Buildings: A Bridge to a More Resilient Future

Published on 26 Jul 2012

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Posted in [Advocacy and policy](#)



Jeremy Sigmon, USGBC, discusses green buildings and resiliency with Mayor Dixon of Greensburg, Kan.

I overheard a lot of scary things in the workshops and in the halls during last week's [37th Annual Natural Hazards Research and Applications Workshop](#). The sessions I attended were worrisome, and the mere titles of some of the sessions I missed were downright frightening – like, “Community at Risk: Biodefense and Civic Action after the Anthrax Attacks,” or “What Keeps Me up at Night: Senior Hazards Researchers Reflect on Lessons (Not) Learned.” It's a sobering conference to be sure, but it's also extremely important to learn about the many ways that our society, economy and infrastructure are very, and increasingly vulnerable to disaster.

Where I come from, the motivation for action today is not typically driven by the threat of disaster. Instead, we're driven by the promise of a brighter, greener future. I was uncertain about how this optimism would be received when I was invited to participate on behalf of USGBC in this conference, but I learned very quickly that emergency managers and the many minds that stay up late thinking about how to better prepare for and mitigate myriad disasters are advancing a hopeful and constructive approach to planning for a resilient future. Phew!

As you may know, USGBC has been involved in this line of thinking for several years, after being called upon time and again to help communities rebound from disasters and build back better, stronger and greener. Resistance, preparedness, mitigation and resilience to natural hazards are at the heart of a [resiliency agenda](#). And we know, intuitively, that a resilient future is a sustainable future.

At our panel session, we addressed a simple question, “[The Future of Green Codes and Standards: Is there a Place for Disaster Resistance?](#)” The short answer is, “Of course!”

In fact, USGBC posed a similar question last year in a joint venture with the University of Michigan to better understand how green building – and LEED in particular – already addresses some of the longer term hazards posed by a changing climate. [This report](#) is one of the first attempts to compile all research on the impacts of climate change on the built environment, and to link impacts with strategies for addressing them.

The report finds that preparedness for future climatic conditions will require greater effort in design, mitigation and adaptation given the decreasing reliability of past climate and weather data. Appendix C spends more than 150 pages detailing how LEED credits and prerequisites are, in many cases, promoting resistance to potential climate-related disasters. LEED users may think most commonly of credit awarded for development outside of known floodplains and for minimizing contributions to global climate change through energy efficiency and renewable energy. Maybe the most direct example is [LEED for Homes'](#) “Durability Management Process,” where all projects are required to assess durability risks (with particular emphasis on moisture control, including flood risk), prior to construction, then manage those risks, and may also earn credit for third-party verification that those measures were implemented. You are encouraged to suggest ways that LEED could evolve to even better address these and other hazards by proposing a credit for the [LEED Pilot Credit Library](#).

Codes, too, have a clear and important role to play given their well-established role of protecting the health, safety and welfare of building occupants in any compliant building from acute risks and hazards, and the [insurance industry agrees](#). For some natural hazards, a code that applies to all buildings may be a far more logical and effective place for design and construction safeguards and other applicable mitigation strategies. Should any building be allowed to be built in an area prone to earthquakes that would crumble under even the most frequent and predictable quakes? Determining the minimum threshold of

acceptable risk is what code development and adoption is all about.


There's a reasonably good argument to incorporate some of these safeguards into the International Green Construction Code (certain measures may extend building service life, for example), but there is an equally appropriate counter argument for them to be incorporated into the base codes (these are acute life safety hazards to which all buildings should be resistant). Either way, the codes will continue to be an important vehicle to mainstream these protections in newly constructed buildings.

I had the pleasure of catching up with Mayor Dixon of tornado-ravaged Greensburg, Kan. about his [community's rebuilding efforts](#), in which they have committed all new public construction to LEED Platinum. Almost any building - green or not - would be damaged if a similar tornado were to strike again.


"We're building back in a way that will ensure that this can never happen again," Mayor Dixon told me, referring both to the deliberate focus on preventing loss of life and property in a future storm, as well as investments to reduce the carbon footprints of city facilities that will thus contribute far less to the uncertain weather patterns and events.

Most importantly, we should be pleased that this constructive conversation on green buildings and resilience is happening, and will continue. I came away from the Natural Hazards Research and Applications Workshop with a renewed sense of hope because of the common ground we found between these two communities. Through research and outreach, the green building community is taking the steps to better understand the risks posed by natural hazards and to find innovative approaches to address and mitigate those risks. Communities around the country are doing great work to analyze, design, and build today in order to ensure a better, brighter, greener and stronger tomorrow. That bridge to a more resilient future requires input and action from a diverse community of perspectives to ensure that our buildings, our communities and our society end up better, brighter, stronger and greener.

Visit USGBC.org/resiliency to learn more.



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