

Daniel Burnham Award for a Comprehensive Plan

Putting the Green in Greensburg

Greensburg Sustainable Comprehensive Plan • Greensburg, Kansas

By Jeffrey Spivak

When a monstrous tornado wiped out the Kansas town of Greensburg in May 2007, some townspeople and outsiders wondered whether it was worth rebuilding. After all, like a lot of small prairie towns, it was dying, the consequence of steady population and business losses over decades. Yet Greensburg is now being rebuilt — and it's being done as a model of sustainable green planning.

That accomplishment earned the town's master plan, the Greensburg Sustainable Comprehensive Plan, an APA Daniel Burnham Award for a Comprehensive Plan. The award, named after one of the nation's most famous planners, honors plans that advance the science and art of planning. Two awards were given this year.

The 151-page master plan, created by Kansas City's BNIM Architects and funded by a grant from the U.S. Department of Agriculture, goes beyond disaster recovery, setting the town on a different path than probably any other rural community in the country. It's a path aiming toward renewable energy resources such as wind power; streetscape plantings irrigated with recycled rainwater; neighborhood design influenced by solar orientation; houses with greatly reduced carbon emissions; even eco-tourism as an economic development tool.

"You can not try to recover from the type of disaster we went through without a detailed comprehensive plan," Greensburg city administrator Steve Hewitt says. "Without that roadmap, the community may survive, but it has no opportunity to thrive in the future."

What green means



Getting an anguished, impatient, and largely elderly group of townspeople to go green wasn't an easy process. There were conflicts, pressures, even political upheavals. But Greensburg residents came to believe their new plan was the key to becoming, in the words of the document, "a very special town" and "one of the few rural communities able to gradually increase its population."

Ironically, Greensburg only has the opportunity to do this because it's starting over from scratch. On the Friday night of May 4, 2007, an EF-5 tornado stretching 1.7 miles wide and with 200 mph winds plowed through the 15-block town of 1,389 people. The storm wiped out about 95 percent of Greensburg's structures. Miraculously, only 11 people died. But the landscape was described as a modern-day Hiroshima. Even the remaining trees were stripped of their bark and leaves.

In the first days of the cleanup, the future of the town teetered. Hundreds of residents fled. National Public Radio reporter Jeff Brady told the rest of the country, "The worry is maybe Greensburg has just become another Western ghost town." But as the first FEMA trailer homes arrived on the scene, an idea bubbled up about rebuilding Greensburg by taking advantage of the "green" in its name. Kansas Gov. Kathleen Sebelius said, "We have an opportunity of having the greenest town in rural America."

The problem was that many townspeople didn't know what that meant. As one resident later explained in Discovery's Planet Green TV documentary, "I thought green was a color of paint." In addition, some old-timers wanted to get on with rebuilding their homes and businesses — immediately. They didn't want to wait for a lengthy process or any new regulations. As frustration mounted, Mayor Lonnie McCollum abruptly quit and left town.

Into these delicate circumstances stepped BNIM. Stephen Hardy, AICP, one of the firm's principal planners on the project, says part of the team's job was explaining to the townspeople what it meant to green their town. BNIM started by asking overarching questions about how much residents cared about the environment and natural resources. In the process, residents found that going green was aligned with the traditional values of farmers and rural Kansans — the values of surviving off the land, using available resources, and living conservatively.

"All of a sudden, people said, 'This is exactly what this community is about,'" says Hewitt, the city administrator. "When you talk about the true meaning of being

sustainable, we all wanted that." He added that the approach gave the town something to rally around. "We took this vision and ran with it."

Indeed, the town's elected council ended up setting a high bar: In December 2007, it passed a resolution requiring all publicly funded buildings with over 4,000 square feet to meet the U.S. Green Building Council's highest LEED (Leadership in Energy and Environmental Design) certification level — platinum. Greensburg became the first city in the nation with that commitment. Heck, the entire state of Kansas didn't even have one LEED platinum building.

Moving ahead



In an accelerated time frame — from October 2007 to May 2008 — BNIM engaged Greensburg's citizens and helped them plot their green path. They established a dozen community goals, most of them focused on sustainable principles, such as "Greensburg's wind resources should be harvested" and "Treat every drop of water as a precious resource."

Then to fulfill those goals, planners presented an ambitious reconstruction strategy with guidelines, targets, and wide-ranging recommendations: Powering the community by a wind farm instead of a power plant. Capturing rainwater off downtown buildings in underground cisterns and pumping that water to irrigate the new streetscape plantings. Designing houses with front porches to buffer the harsh summer sun, but also with south-facing roofs and solar panels to capture energy. Filling residences with energy-efficient appliances and fixtures, from fluorescent lights to low-flow toilets.

Taking the master plan one step further, BNIM also offered an economic development agenda for how Greensburg could capitalize on its budding green reputation. The ideas included luring green-oriented manufacturers to an eco-industrial park, nurturing green entrepreneurs with a business incubator, even marketing itself as a tourist destination for builders and academics interested in sustainable technologies. "The vision of a green Greensburg provides a significant competitive advantage," the master plan asserts.

By now, Greensburg has regained about half its population, and officials expect the town to reach its pre-tornado level in another four years. Meanwhile, the business incubator has opened, construction of the new downtown streetscaping has begun, and development

of a wind farm is getting started. The city reports that some 800 building permits have been issued.

Greensburg leaders understand their town will serve as a model for the country. So, too, will its award-winning master plan. "It broadens the possibilities of sustainable design for rural communities," notes Rachel Wedel Stroer, BNIM's other principal Greensburg planner.

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Resources

Images: Top — Greensburg's vision includes LEED-certified buildings, water conservation strategies, and extensive streetscaping. Bottom — Public meetings revolved around what residents wanted for their town, which they were rebuilding from scratch. Images courtesy BNIM.