Sustainability after Disasters!

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Some Facts

• Tornado struck at 9:45 p.m., May 4, 2007
• EF5 Tornado (first EF5 under new scale, first EF5 since 1999).
• 1.7 miles wide, wider than Greensburg, 22 mile path
• 95% of city destroyed, remainder severely damaged
• Winds of 205 mph
• Sirens sounded 20 minutes of warning
Greensburg High School

- Greensburg, KS May 16, 2007 - Heavily damaged Greensburg High School will have to be torn down. An F5 tornado struck the town on May 4. Photo by Greg Henshall / FEMA
Response Phase

- 11 dead, about 100 injured of about 1400 total population
- FEMA and SBA are doing Preliminary Damage Assessments
- Two ARC shelters (for 78 people)
- FEMA Urban Search and Rescue and Incident Support Team on May 7th
- Sprint put up a portable cell phone tower
- FEMA Opened a Disaster Recovery Center (full-service!)
- Debris removal (FEMA 75%)
More Facts

• More than 1,000 per year in U.S.
• Waterspouts too!
• Toto!
• Tornado Alley (color, noise)
• Tri-State Tornado, 220 miles, 747 dead, 1925
• Oklahoma City F5, 1999, 301 mph winds
• Man carried more than 3 football field and dropped
• July 4, 1964 "DERECHO" (day-RAY-cho)
Green from the Ground Up!

• 1. Identify and Bring Stakeholders Together
• 2. Choose Your Leaders
• 3. Visual and Capture the Vision
• 4. Get the Lay of the Land
• 5. Set Your Goals
• 6. Find the Funds
• 7. Write the Plan
FEMA & HUD

• HUD immediately met with the Governor of Kansas, informing them the option of re-allocating millions of dollars in block grants to help Greensburg

• FEMA has partnered with HUD’s Sustainable Housing and Communities initiative and has taken sustainability principles into account in its mitigation grant application process
DOE National Renewable Energy Lab (NREL) Involvement

- DOE offered **technical assistance to the city** leaders in Greensburg within a month of the tornado. (planning, feasibility studies, business strategy, policy recommendations, goal recommendations, green business proposal reviews, outreach and communications)

- DOE **investment**: $2.55 million over 3 years (**thru** Sept 2010).
Commercial Building Results

• Resolution all city buildings LEED Platinum
• Over 30 Commercial/Public building projects reaching for LEED Certified 30% savings
• Likely have the highest density of Platinum projects in the US with 40%-50% energy savings: K-12 School; Hospital; Business Incubator; John Deere Dealership (Platinum certified); 5.4.7 Arts Center; Prairie Point Town Homes; City Hall; County Courthouse; Robinett Building on Main Street
Greensburg Resources

• [http://www.greensburggreentown.org/video-library/](http://www.greensburggreentown.org/video-library/)

• Online Tour Book

• And more!
Downside?

• Developing green policies took time . . .
• Planning took time . . .
• Building green building took more time than build-a-box type retail establishments . . .
• Without jobs and support, many had to leave Greensburg, and now after five-years, is it estimated that half the original population has not returned . . .
Conclusion?

• A bold vision for recovery, initiated through the ESF #14 (Emergency Support Function – Long-Term Community Recovery) and supported by the Greensburg LTCR Plan, has allowed more recovery partners than usual to aid the City’s recovery and participate in supporting a range of recovery projects.

• In 2008, the U.S. Department of Energy estimated that it is providing technical assistance in renewable energy and energy efficient building design, valued at up to $1.25 million.

• The U.S. Commerce Department’s Economic Development Administration also announced that it has invested $2.3 million to help rebuild Main Street. The investment is expected to create 30 jobs, generate $3 million in private investment, and revitalize downtown.