

Building GREEN in Greensburg

Dillons Kwik Shop



Credit: Lynn Billman, NREL

After a tornado destroyed 95% of Greensburg, Kansas, in May 2007, residents needed a convenience store for gas and groceries. Just a year after the storm, Kroger Company broke ground on a prototype for rural grocery stores. Completed in February 2009, the new Dillons Kwik Shop is a hybrid between a convenience store and a gas station. Kroger Company hopes this type of store will serve the grocer needs of several rural county areas. Additionally, this building includes a number of unique green building and energy efficiency features.

ENERGY EFFICIENCY FEATURES

- **Well-insulated roof** with an R-value of R-24 that prevents heat loss and maintains cooler temperatures in summer
- A **high albedo reflective roof coating** reflects heat away from the building in summer when the sun is higher in the sky
- **Insulated concrete form (ICF) walls** made from ICF blocks prevent heat loss in winter and heat gain in summer (R-value is R-22)
- **Skylights** provide lots of natural light to reduce the use of artificial lights
- **Photosensors** detect the amount of daylight present and adjust electrical lighting accordingly to conserve energy
- **Recycled waste heat** from mechanical systems is used to heat water for interior use
- **Occupancy sensors** turn off lights in areas not occupied to conserve energy
- **ENERGY STAR®** refrigerators and freezers save energy
- **Energy-efficient light emitting diode (LED) lights** used on freezers and dairy doors save energy and are motion activated for optimal performance
- **Energy-efficient lighting**, such as T-8 lamps with electrical ballasts and compact fluorescent light bulbs save energy.

WATER EFFICIENCY

- **Native landscaping** is used because it requires less water
- **Rocks** are incorporated into the landscaping to reduce irrigation needs.

INDOOR AIR QUALITY AND ENVIRONMENT

- **Nontoxic building** products, such as paints with low levels of volatile organic compounds minimize indoor pollutants
- **Temperature control devices** allow occupants to control temperature in their area.

LEED RATING EQUIVALENT

- Certified



Credit: Shanti Pless, NREL