MOUNTAIN CLIMBER
A family-owned operator takes plant, shop design to next plateau
Concrete takes center stage in fortified home program

In late 2000, after the American Southeast had suffered through year after year of brutal weather-related beatings, the Tampa-based Institute for Business & Home Safety (IBHS) introduced a certification program to residents of arguably the hardest-hit state, Florida. The “Fortified...for safer living” debut marked the beginning of a national program to encourage natural disaster safety as a feature of home construction. The goal of the program is to get homeowners to demand and builders to build homes that better resist the forces of nature by establishing minimum requirements to be resistant to a given peril and an inspection program to ensure that the required features have been included in these homes.

When the program was first introduced, Florida's top concern was hurricane and flooding resistance. But at a recent showcase of soon-to-be fortified homes in the Chicago suburb of Bolingbrook, Ill., Dukane Precast, Inc. of neighboring Naperville (see “Double Time,” Concrete Products, September 2002, pp. 22-26) was constructing homes to withstand tornados with 130-mph peak gusts, large-sized hail, and extreme freezing temperatures. Since the development is on higher ground, flooding is not an issue for this particular job, but it is an option in the “Fortified...for safer living” program, as is earthquake resistance. The Bolingbrook homes will be the first fortified homes in Illinois.

Not surprisingly, the “Fortified” program is the result of research funded in large part by a handful of insurance companies. Earlier this year, one Florida insurer began offering a homeowners insurance discount of as much as 10 percent on new homes in the state built to “Fortified” standards. “We are building badly in this country,” says Charles “Chuck” Vance, fortified program manager for IBHS. “We've made energy efficient homes, green-compliant homes, but in terms of fortification, we're lacking. Concrete producers, however, are building the strongest homes, and as a result, these homes should be getting better insurance rates. This program sends a powerful message to insurers. Prior to this program, no one had really taken a hard look at disaster resistant construction.”

The “Fortified” program provides a nationwide definition for mitigation in new construction. Traditional building codes detail minimum requirements for residential construction, both single-family and multi-family buildings up to three stories. While adequate from a life safety standard, these codes do not necessarily represent the latest building techniques and technology to protect property from natural disasters, says Vance. “They are looking at the way the houses are built and how sections of the home are mounted and connected so as to keep the frame much more solid than conventional construction,” he says. “Another key component is “opening” protection—fortifying openings like doors and windows from flying debris.”

“An independent inspector certification is part of the package,” Vance adds. “While the home is under construction, an IBHS-certified trained independent inspector verifies that specified products and materials were used and that the installation and construction procedures are in accordance with manufacturer and/or fortified requirements.

“The best news for the ‘Fortified’ program is that concrete construction technology is finally making its way into the mainstream. In fact, consumers are catching on to concrete building faster than the builders. Either way, it’s an emerging market that raises the bar in residential construction.”

—by Steven Prokopy