CASE STUDY: ICFs

DEARING ELEMENTARY SCHOOL
Dearing Elementary School, 4301 Gattis School Rd.
Round Rock, TX 78664

Completed: 2014
Stories: 2
Project Size: 93,376 sq. ft.

MEET THE FIRST NET-ZERO READY SCHOOL IN TEXAS.
Insulated concrete forms (ICFs) are changing the construction game across the country. ICFs allow builders to meet the growing demand for energy efficient structures without sacrificing quality or durability. Additionally, ICFs are helping many builders stay on schedule and under budget. So it should come as no surprise that ICFs were chosen for the construction of the Dearing Elementary School in Central Texas.

01. Increased strength and durability.
ICFs are nearly twice as strong as concrete masonry unit, the classic hollow cinder blocks commonly used in school construction. Additionally, ICFs are considered to be nearly 10 times stronger than wood-frame construction.

02. Keeping students safe.
Located in "Tornado Alley," builders knew it was important that the school be able to withstand Mother Nature's wrath. ICFs can withstand winds over 200 miles per hour and debris traveling at more than 100 miles per hour.

03. Built with fire protection in mind.
ICFs are virtually fire-proof as they can withstand fire temperatures of 2,000 degrees Fahrenheit for four hours. The same can’t be said for wood-frame construction, which collapses after less than an hour of burning, giving occupants little time to escape.

04. Energy efficiency is built in.
ICFs absorb heat, keeping interiors cool during warmer months, and release heat when its cooler outside. This helps reduce heating and cooling costs. Studies show ICFs require 44% less energy to heat and 32% less energy to cool than comparable wood-frame construction.

AWARDS:
Best Green Project, Engineering News-Record, 2015