

# concretehomes + low-rise construction

November 2013

## URBAN LIVING

Revitalizing a high-density residential community

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## NewLook's Heat-Reflecting CoolStain PRO Cools Existing Exterior Concrete

The penetrating water-based stain from NewLook is completely opaque and leaves a natural-looking finish on concrete while also reducing the surface temperature by up to 50 degrees. CoolStain PRO is made especially for use with existing, unsealed, exterior, concrete and masonry surfaces. It penetrates the surface of porous concrete and forms an opaque, breathable finish. It can be used on concrete flatwork, concrete patios, garage floors, vertical surfaces, concrete blocks, pavers, imprinted concrete, exposed aggregate, cement, masonry, stucco, and many other cementitious surfaces. CoolStain PRO is an infrared reflective concrete stain, not a paint. Paints can flake, bubble, blister and delaminate. CoolStain PRO, however, is a penetrating concrete stain. [www.getnewlook.com](http://www.getnewlook.com)



## Hammon School's Gymnasium and Cafeteria Doubles as a Community Shelter

The new domed structure scheduled for completion at the end of October 2013 has been built to function as a storm shelter for the town of Hammon in Roger Mills, Okla., and also serve a primary use as an 1100 seat gymnasium and school cafeteria. The 28,000 square foot project is comprised of a curved low profile roofline and walls constructed with Insulated Concrete Forms by NUDURA, a leading ICF manufacturer. Once erected the airform dome serves to protect the site in all weather conditions as both the form for construction of the domed roof and the outer roof membrane of the shell. Its aerodynamics reduce wind resistance for greater safety, helping the structure to withstand wind speeds of 300 mph or more. The dome affords an innovative approach to construction of a steel-reinforced concrete structure that eliminates vulnerable corners prone to collapse in high wind conditions.

The ABC Domes provide shelter from hurricanes, tornadoes, earthquakes and fires because of their strong and ergonomic shape in conjunction with the encircling ICF walls. The combination has proven to be virtually unaffected by time, weather, seismic activity or manmade assault. Coupled with an insulating layer and ABC's proprietary 4000-psi shotcrete blend applied to the inner dome, the large thermal mass of the dome decreases HVAC requirements by 30%.

"In addition to safety considerations, reducing energy costs for operations was a major driver the Hammon School District considered in accepting the dome approach," says Anna Howard of Kerr 3 Design Group, Inc.

The U.S.-based alliance, comprised of American Business Continuity Domes, Inc. ("ABC Domes"), Dome Technology and ES2 Engineering System Solutions, develops and builds disaster-resistant, steel-reinforced thin-shell concrete domes. The group has successfully completed over 500 domes worldwide for a variety of industries and for purposes including disaster recovery command centers, highly secure corporate facilities, emergency equipment and vehicle storage, bulk storage, records/data warehousing, IT server parks/data centers, community centers, schools and gymnasiums, as well as FEMA-361 compliant safe rooms and shelters.

The Hammon, Oklahoma dome was designed by architects Kerr3 Design Group and Red Sky Constructors LLC served as construction managers. Another essential member of the project team, ES2 Engineering System Solutions is a full-service, licensed, and insured structural, electrical, plumbing and mechanical engineering company and a building systems commissioning firm.

For further information, visit: [www.abcdomes.com](http://www.abcdomes.com), [www.dometech.com](http://www.dometech.com), [www.es2eng.com](http://www.es2eng.com)