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SOARING SPACES & INVITING INTERIORS

Inside a
Family-Friendly
ICF Home

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SOARING SPACES & INVITING INTERIORS



By Sherry A. Boyd with Cameron Ware

Photography by Jeff Roberts of CozRob.

Courtesy of Pounds Homes.

THE FRONT FACE OF THE EAGLE MOUNTAIN LAKE HOME IS PUNCTUATED BY LARGE ARCHED WINDOWS AND DOORS THAT LEND OLD-WORLD CHARACTER AND GRACE TO THE HOME. TO THE REAR THE ARCHITECT ADDED A 600 SQUARE-FOOT BALCONY AND A SERIES OF COVERED OUTDOOR ENTERTAINING SPACES, ALONG WITH EXPANSIVE BANKS OF LARGE WINDOWS, TO TAKE FULL ADVANTAGE OF PANORAMIC VIEWS ACROSS THE WATER. THE MIXTURE OF INDOOR-OUTDOOR COVERED LIVING SPACES AND 8,000 SQUARE FEET OF INDOOR SPACE GIVE THE HOME AN OPEN AND WELCOMING FEELING.

The homeowners, who relocated to the Dallas-Fort Worth area from Florida, put storm safety for their family at the top of their priority list. They even included a spacious, monolithic ICF safe room that stands alone inside their home. Built to last and to withstand the intense Texas sun, the high R-value of ICF walls keeps inside temperatures constant while also minimizing energy costs. To complete the total building envelope, 6 inches of open-cell spray foam was applied on the attic rafters to keep the heat out.

Everything is said to be bigger in Texas, and this home is no exception. Soaring spaces meet the eye. The homeowners requested larger than average bedrooms, kitchen, dining room, family room, media room, office space and closets. The grand scale is made imminently cozy and livable with whimsical murals, decorative paintings and comfortable furnishings.

In all, there are eight luxurious bathrooms, one for each of the five bedrooms and more situated near spaces used for entertaining. Two laundry rooms add to convenience, with one upstairs and one downstairs.

Curving walls provide unique spaces for the breakfast room and the circular stairway that provides a dramatic focal point. Building designer, Mitchell Young of Grand Home Designs, appreciated the creative scope the homeowners gave him in designing the lakeside villa. He developed a floor plan that is wider than it is deep, grouping the main rooms to maximize views. The homeowners were particularly intrigued by the wedding cake ceiling in the master bedroom with four intersecting circles and a central floral medallion.

When the homeowners first told Young they wanted curved

THE SPANISH-INFLUENCED ICF HOME AT EAGLE MOUNTAIN LAKE WAS DESIGNED TO RESEMBLE A GRAND COASTAL VILLA AND BUILT TO WITHSTAND THE TESTS OF TIME.



Inside the high ceilings, detailing and materials selections contribute to a feeling of permanence and tradition.



the versatility possible with ICF walls his concerns vanished. He says he would not hesitate to take on another complicated design with ICFs, which he recommends for their amazing insulating value.

While the homeowners have only retreated to their safe room to “hunker down” during one particularly big storm watch, they chuckle at how often their neighbors just happen to drop in when high wind and possible tornados get mentioned in a weather report. Their solid walls have helped their home become a fun-filled gathering point in their neighborhood.

A CONVERT TO ICF BUILDING BENEFITS

Since his experience with this home, the builder has become a big fan of building with insulating concrete forms. Robert Pounds of Pounds Homes believes that any set of house plans can be used to build an ICF home and an ICF wall can be finished with any exterior finish. The walls are slightly thicker but otherwise, homeowners do not notice any other aesthetic differences between ICF and frame or block constructed homes. He says, “We use building techniques that make sense and keep costs as low as possible to create a home that will stand the tests of time.”

Pounds is a big believer in the benefits of Insulating Concrete Forms (ICF) construction to provide homes the best in structural integrity to withstand extreme weather events, such as those in Northwest Florida. “The performance criteria of ICF construction cannot be compared to traditional frame or block construction. The criteria are significantly greater,” he says. “ICF may cost a little more during the construction phase of a home when compared to more traditional methods of construction, but homeowners experience a return on investment (ROI) in 3 to 5 years and enjoy the benefits for many more years to come.”

With this formula, ICF costs significantly less than more traditional wood-framing construction over the life of the home, because of ICF ROI, due to superior performance related to energy conservation, health benefits, structural integrity, and low maintenance costs. Plus, ICF has high wind and impact resistance and also is resistant to termites. The material will not rot or decay, even in coastal climates. ICF handles inclement weather events and the material is fire rated. Both attributes may result in lower insurance costs and less maintenance over time.

ICF has high performance R-values that contribute to energy conservation. There is no air infiltration and ICF does not degrade over time. The homeowner benefits by paying lower heating and cooling costs.

Pounds promotes the fact that there are considerable health benefits of living in an ICF home. Dust and allergens do not infiltrate an ICF home. The walls have no cavities for mold, mildew, bugs or rodents to inhabit and ICF is made of non-toxic materials.

For all these reasons, he is building his own home with ICFs.



The unique, complex shapes of the ICF building envelope were easily created with ICFs. Photo courtesy Cameron Ware.

ON THE JOBSITE

Cameron Ware of FutureStone, the Texas NUDURA ICF distributor, reported that some members of the building team initially were skeptical that ICF could be delivered to the needed tolerances. It is very common for a builder new to ICF to want to stay in his comfort zone and to sometimes talk a homeowner out of building to the higher standard of ICFs.

Windows were ordered prior to ICF commencement so it all had to be delivered perfectly. The Eagle Mountain Lake home included four radius walls, including a radius with poured arches and an elliptical radius wall with multiple openings. One ellipse was cut by hand since it has a variable radius, but for the other three radius walls NUDURA's factory cut radius was delivered pre-cut.

Four different radius wall were built, including compound radius work with arched windows and an elliptical radius wall. The Pella windows that had been purchased meant all window openings had to meet the exact measurements.

Many installers will shy away from such complex jobs due to lack of confidence – not Tim Jackson, the ICF installer. Jackson commented, “As a matter of standard procedure, we pour arches instead of taking the common easy route of building a square opening and then having the framer come back and fill it in. Although honestly not that difficult, our challenge was to deliver perfectly poured arches in walls typical walls as well as radius

walls.” He added, “We believe in a first class installation and do not cut corners. We believe that our focus on quality is why we are seeing more growth here.”

Robert Pounds, the home builder said, “The NUDURA installation was flawless. In doing my due diligence on ICFs, this was concern of mine because of the level of complexity associated with the several radius walls and an elliptical wall. The poured arches were provided exactly as requested. And the Pella Windows representative said they had never seen windows with virtually zero variance to the required opening.”

He added, “The construction team did not experience any significant delays or problems during the installation of the 13,000 square feet of NUDURA ICF walls, although it was necessary to work a number of days in the rain. The safe room was poured monolithically with the ICF walls and ceiling all being poured the same day. The safe room does not share external ICF walls but was built free-standing in the center of the structure surrounded by other ICF walls. Although the NUDURA blocks come in a variety of thicknesses, we used the 6-inch core.”

The home exterior is finished with synthetic stucco and stone. The resulting building is a beautiful combination of state-of-the-art insulated concrete formwork along with complex dropped ceiling work in virtually every room.



MULTIPLYING DEMAND

Several architects toured the home under construction leading to new opportunities for FutureStone and the whole building team. Ware says, “The home demonstrates that complex shapes can be created quickly and accurately utilizing NUDURA ICF. The home ultimately led to several additional high-end home designs and new projects in the Dallas/Fort Worth area as well as additional homes across the state. Local ICF installers are becoming very proficient in the accurate and timely delivery of complex insulated concrete form construction.”

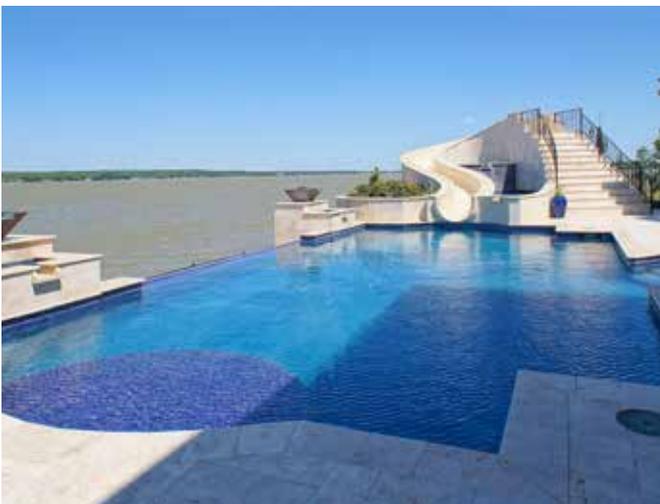
He added, “As is typical with successful completion of yet another complex home, we continue to receive calls on additional homes of this type. One is nearly completion now and is another example of complex work made simple. NUDURA is often specified for contracts on these high end homes in North Texas because homebuilders seeking to deliver the best work are careful about references and seek out testimonials from homeowners and builders.” 

ABOUT THE AUTHOR

Cameron Ware of Futurestone LLC provided technical support for more than 60 Texas schools built using Nudura ICF. Futurestone offers a variety of training and continuing education classes for NUDURA Insulated Concrete Form (ICF) construction throughout Texas. If you are interested in finding out more about training opportunities please contact Cameron via cameron.ware@futurestone.com to register or request more information. futurestone.com

Sherry A. Boyd is managing editor of Concrete Homes + Low-Rise Construction magazine. She also works as a freelance writer and editor.

The large balcony and rooms facing the lake frontage were designed to take full advantage of the views and access to the vanishing edge pool, spa and water slide feature.



PROJECT TEAM

BUILDER:
Pounds Homes

ARCHITECTURAL DESIGN:
Grand Homes Designs

ICF INSTALLER:
Timothy Jackson

ICF DISTRIBUTOR:
FutureStone

ICF MANUFACTURER:
NUDURA Integrated Building Technology

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