

REWARD COMMERCIAL CONSTRUCTION—THE SKY'S THE LIMIT!



2001 was the year in which Reward entered the commercial and large-scale residential construction market in a big way.

Several factors, such as the production of iForm™, our NES noncombustible rating, and greater visibility throughout the architectural and construction communities, came together to open up this highly desirable market for Reward and its network of ICF building professionals.

Reward projects currently underway in Florida and Oregon are the tallest and largest buildings ever built with ICFs in North America. And an all-Reward development in Colorado is projected to use the most ICFs ever for a single development.

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CONVENTION 2002—A TRUE WINNER!

How do you top the most successful, well-attended and highly acclaimed Reward convention ever?

Easy, according to Director of Marketing Brandie Allen-Rezac. "You put a diverse group of speakers who truly understand the ICF industry together with the largest gathering of quality ICF professionals anywhere and create an extraordinary mix of talent, knowledge and skills that benefits everyone."



The 2002 Reward Convention, scheduled January 21-23 at The Orleans Hotel and Casino in Las Vegas, is the event that caps off an unparalleled year of expansion and growth for Reward and previews even greater achievements in the coming year.

Scheduled speakers include Richard Rue, an engineer whose company performs energy consumption analyses for ICF projects throughout the country; Clifford Taylor, AIA, a Colorado architect who has designed several significant projects with Reward; and Robert Berman, manager of the marketing company who handles the marketing for one of the largest ICF distributors in the country. In addition, Reward staff members will address issues such as building codes and the selling process, growing markets and opportunities, and the overall state of the ICF industry. In breakout sessions attendees can learn about the power of the web, Energy Wise in-depth, and getting the competitive edge. Tips and new information about the cDeck flooring system is also scheduled.

In what has become the most highly anticipated presentation of all, President Ed Storm and Chief Operating Officer Hank Pfeiffer will conclude the meeting by outlining the bold steps and exciting new products they have planned for Reward in 2002 and beyond.

The convention begins Monday evening with an opening reception. Throughout the convention attendees have the opportunity to see displays and visit with representatives of companies that offer products compatible with Reward during free continental breakfasts and breaks. A farewell dinner and awards ceremony will close out the convention on Wednesday evening.



Make your reservation now and take advantage of bargain airfares. And don't forget— just for attending the convention you can receive a \$1.00 per form discount on a truckload of forms ordered according to specifications— a value of up to \$866!

To make your reservation, call Vickie at 800-468-6344.

Sample round trip airfares to Las Vegas that were available in early November. From:

Pittsburgh--\$322
Orlando--\$350
New Orleans--\$300
Dallas--\$222
Kansas City--\$210
Minneapolis--\$93
Seattle--\$213
Los Angeles--\$100



This all-concrete beach house was built to last. Inset: Vandergrift accomplished the all-concrete decks and column by building in lifts.



AN ALL-CONCRETE BEACH HOUSE

Usually when you think of a beach house, you picture aging, weathered wood, faded by the sun and salt water. But that picture doesn't apply to the newest beach house built by Nick Vandergrift on a sunny stretch of beach in Norfolk, Virginia. This is a house that can withstand everything Mother Nature can throw at it, because it's all concrete—walls, decks, columns and all.

Vandergrift, who has completed several other Reward beach houses along the Ocean View beach, said this was one of the first ones that included the concrete decks. "From now on everything is going to be concrete," he said. "These houses are built to last and are almost maintenance free." Vandergrift explained that the concrete decks were easy to integrate with the Reward walls and said, "This was more like building a commercial building—almost like a parking structure. It went up in lifts, and everything is tied into the house, so it's like a concrete superstructure."

"People don't want a wood house after they've walked into one of these," he added.

PROJECT PROFILE

- Virginia Beach, Virginia
- 2,800 square feet
- 3 ½ stories
- HVAC— Two zone heat pumps
- Vinyl siding with wind rating of 190 mph
- 40-year architectural style roof shingles with 135 mph wind rating
- Anderson windows and doors
- 9 ¼" eForm

Parade of Homes House Withstands Tornado While Under Construction

When John Vogstrom of Vogue Homes in Minneapolis finished installing the roof trusses on the 4,760 square foot house he was building last spring, he and his crew went home for the day feeling pretty good about the progress they had made on the house.

Vogstrom had a completion deadline because he was building the house as an entry into the 2001 Twin Cities Fall Parade of Homes scheduled for September. Construction on the home had been a challenge since they started it in April because of the record rainfalls. Minnesota had an unusually active tornado season, too, and on the night in question a tornado went right over Vogue's house on its way to completely demolishing the nearby town of Siren, Wisconsin.



Work progressed quickly despite a high wind setback.

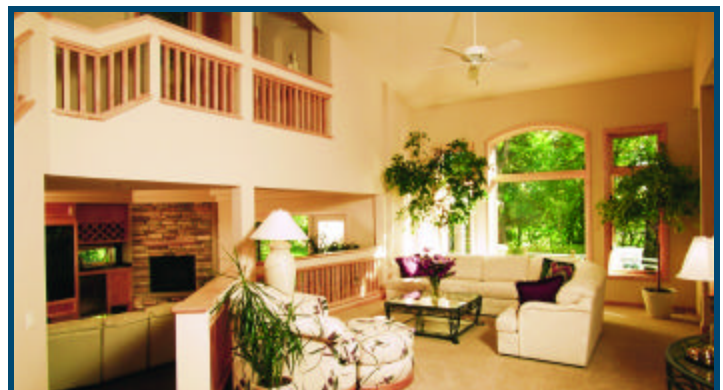
"It was unbelievable," said Vogstrom. When we arrived the next morning, 65-70 mph winds had literally snapped the trusses off, causing a domino effect ending in the entire roof system collapsing inside the ICF walls. I immediately grabbed my level to measure the walls and found they had not moved AT ALL. I have 30 plus years as a stick frame builder, and I can tell you a stick frame equivalent would have meant starting from scratch. As it was we lost only two to three days to clearing out the demolished trusses and installing the new ones."

The Parade of Homes house came about as a result of an alliance between Vogue Homes and Reward distributor, Cemstone Concrete Solutions of Minneapolis, the same team that built an award-winning ICF house for the 2001 Minneapolis Home and Garden Show.

At the conclusion of the Parade of Homes, Vogstrom moved into the house, and plans to use it as a model home. "Our fall has been fairly mild," he said, "but so far we have experienced no drafts or cold spots. The temperature is very uniform throughout the house." He added that he projects his winter heating bills to total less than \$100 per month.

PROJECT PROFILE

- Mendota Heights, Minnesota (Minneapolis suburb)
- 3,820 finished square feet, 4,760 total square feet
- 1,200 square foot garage with in-floor heating
- Zoned in-floor radiant heat
- 3-ton AC with air exchanger
- Stucco, stone and vinyl exterior finishes
- Stamped concrete driveway and floors
- 30-year horizon shingle roof
- 9 ¼" eForm



This Reward showhome was a Minneapolis Parade of Homes hit.

SKY'S THE LIMIT!

Continued from Page 1

Florida: When finished, Waterside IV, the fourth of an eight-building condominium complex, will be the tallest structure ever built with ICFs. Ostego Bay Construction, Inc. of Ft. Meyers began construction last spring. Currently the forming contractor is pouring the fifth deck. Icon, Inc., a construction company that specializes in ICF construction, started wall construction using the 11" iForm last September. The ICF infill walls are complete on the first three floors and work is progressing on schedule on deck four.



When finished, Waterside IV will be the country's tallest ICF building.

Oregon: Located 90 miles northwest of Portland, Seaside is the site of the largest ICF structure ever built in North America. Part of the Trendwest Resorts chain, the approximately 450,000 square foot Seaside resort will consist of three 8-story towers connected by a common concourse. General contractor, Swinerton Builders of Portland, chose Reward for the project both for the forms, which will withstand the corrosive effects of salt water, and for the technical and construction support Reward provides. Construction of the basement level with 13" iForms is complete, and the tower ICF wall construction with 11" iForms began in early December.

Colorado: Construction has barely begun on a 64,848 square foot office/warehouse building in Wheatridge, but ten of the units have already been sold. All exterior and all interior walls will be built with the 11" iForm, creating individual "warehouse condominiums." Developer/general contractor, Mike Radke of MDR Designs, LLC, built a similar, highly successful project in Denver two years ago. Radke plans to build at least six more buildings in the Lakemont Landing project, using Reward. When complete, the development will have used a record number of ICFs, making it the largest total ICF project ever. And since Radke plans to use cDeck throughout the development, it will also be the largest project in the United States to use an insulated concrete roof system. ■



A fire-resistant firehouse.

Fire-Resistant Firehouses

It seems appropriate that two Raleigh, North Carolina, firehouses were built with fire-resistant wall construction incorporating the Reward eForm last summer. According to Phillip Woodlief, assistant chief in the services division of the City of Raleigh Fire Department, fire resistance is one of many criteria that have to be met in fire station construction.

"The city requires a building that will last at least 100 years with minimal maintenance," said Woodlief. "In addition, it must be able to withstand winds of 100 mph or more and be fire resistant. When a disaster strikes, we can't be worried about having to rebuild our fire stations."

While Reward walls easily met these criteria, two other factors played a major part in the decision to use Reward—high R-value and low price. "We liked the fact that we would be saving on utility bills throughout the life of the building. And we found that when you cost everything out, the price was better for ICF walls than for the brick and block structures we had previously built," Woodlief explained.

Reward distributor Greg Carlisle of U.S. Insulated Forms in Raleigh built the walls for the two 5,670 square foot firehouses, which are identical with living quarters attached to the truck garages. One of the firehouses is located less than a mile from the second largest airport in North Carolina. When asked how they like the noise from the planes, the firefighters assigned to the building said, "What planes?" ■

PROJECT PROFILE

- Raleigh, North Carolina
- 5,670 square feet
- Single story residential section
- Attached truck garage with 22'8" walls
- Asphalt shingle roof
- Cementitious siding and trim for residential section
- Brick siding for truck garage
- Aluminum clad wood windows
- 11" eForm

Letter From the President



Office of the President

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Dear Reward Building Professionals,

“Reward Is On A Roll” is the theme for our 2002 convention scheduled January 21-23 in Las Vegas, and it’s really true. One obvious indication is that an increasing number of construction industry professionals who want more information about the product performance and construction benefits of ICFs are turning to Reward and to you for the answers they need. And people new to the ICF industry look to Reward as the leading provider of ICF products and services.

The Reward team **is** “on a roll,” and we are building on the strength of our momentum. That’s why I really hope to see you at our convention again this year. 2001 has been a great year. Many of you have completed unique projects, had some funny moments, faced first-time challenges and accomplished a lot of noteworthy achievements. Our convention has become a forum for us and each of you to discuss and exchange these projects and stories, learn from them and take away ideas to improve your businesses.

The 2002 convention will be focused on you, and the products and services you need to build a stronger business. This is your chance to meet with and have your questions answered by experts who can address your particular business needs. Also, I’m proud of the fact that Reward is probably the most forthcoming ICF company when it comes to telling you what to expect. I always look forward to the convention as an opportunity to tell you what we have planned for the coming year—and we have some surprising and exciting new products and innovations to announce.

The quality of our convention improves each time one more company or person decides to join us, so make your plans to attend now. Reservations are coming in quickly. Don’t miss this chance to be a part of an event that is unique in the industry—the largest gathering of ICF professionals anywhere. I hope to see you there.

Best regards,

Edward L. Storm
President



Reward Basements Under Other Types Of Construction

Several factors must be addressed during the construction of a Reward basement wall when a wood frame, manufactured, or modular house is to be placed on top of it. Three main elements must be designed and constructed properly for the wall to carry its loads: the basement wall, the structural floor diaphragm, and the floor to wall connections.

Basement Wall

The Reward basement wall must be designed and constructed to support the gravity or vertical forces from the structure bearing on it along with the lateral soil pressure that will be resisted by the basement wall. The basement wall is typically designed to span between floors. It is, therefore, important to place the rebar on the inside face of the basement wall and to support the top of the wall. Note that if the top of the wall is not supported, the wall will be forced to get all of its support by cantilevering from the footing. The narrow footings typically used are not capable of supporting a cantilevered retaining wall. Furthermore, the reinforcement in the wall would have to be placed on the outside face for an unsupported wall and the amount of reinforcement would have to be significantly increased.

Structural Floor Diaphragm

The floor deck supports the top of the basement wall by acting as a structural diaphragm. The structural floor diaphragm includes the floor joists or other supporting members, but the most important component is the wood or concrete floor deck. It is this floor diaphragm that transfers the lateral (backfill) loads from the wall into the end or shear walls. The diaphragm cannot function without the floor deck in place.

Floor to Wall Connections

The support provided by the floor diaphragm to the top of the basement wall is only as good as the floor-to-wall connection. The sill plate, sill plate anchorage, or anchor bolts, and the fastening or anchorage of the structural floor frame and deck to the sill plate must be designed and constructed properly. Any one of these items may act as the “weak link” to structural damage or failure. Sill plate variables to consider include grade of lumber, thickness, and size. Anchor bolt or anchorage variables to consider include diameter, spacing, type, and grade of material. Variables concerning the fastening of the floor frame to the sill plate include the size, type, and quantity of fasteners.

In manufactured homes, when a steel beam is placed into a beam pocket, the steel beam should bear on a bearing plate that is anchored to the concrete wall. The steel beam should also be structurally connected to the bearing plate via bolting or welding.

When to Backfill

Backfilling the soil against the excavated basement wall should not take place unless the following conditions are met:

- The concrete has cured a minimum of seven days
- The top of the basement wall is supported

Therefore, it is best to have the floor system (joists and deck) installed at the time of backfilling since they are designed for this purpose. In a modular or manufactured home, the floor deck is already included as part of the structure, so ideally the house should be placed onto the basement wall before backfilling. Often, however, it is necessary or desirable to backfill before the floor deck is constructed. In this case, it is imperative that the top of the wall be adequately braced with temporary supports that remain in place until the floor deck is installed. When backfilling, take care to keep backfill equipment as far away from the basement wall as possible. ■

Stay InFORMed

◀ The booth maintained by Cemstone Concrete Solutions of Minneapolis and Reward Walls Systems, Inc. received one of 15 commendations given out at the 2001 American Institute of Architects (AIA) Minnesota Convention in October. More than 180 companies participated in the show, and a total of 204 booths were judged. The displays were judged on:

Visual appeal—impact and booth layout

Booth personnel—good appearance, always present, good attitude, informed and helpful

Product presentation—product samples & literature, educational/new information, interesting product display

◀ Reward Wall Systems has one of the best product quality control systems in the industry. However, occasionally a shipment of forms could be delivered that includes some forms that do not meet our standards. To help us in our efforts to always deliver a quality product to you, follow these guidelines whenever you receive a shipment of Reward forms:

- Unload the bundles of forms with normal care—the product is molded from expanded polystyrene and can be damaged with improper handling
- Examine the forms to the fullest extent possible during unloading for any prior damage
- Count the quantity of bundles and forms and be certain that the count agrees with the bill of lading. Note any damage or shortages on the bill of lading before signing
- Contact Reward Wall Systems, Inc. immediately if there are any issues with the shipment, such as wrong quantity or type of forms shipped, damage prior to unloading, quality of product, packaging, etc.
- Cover the bundles to protect them from UV degradation and moisture if they are to be stored outside for any extended time
- Since all EPS products, including ICFs, shrink slightly over time, manage the iForm shipments so that the age of the forms is similar and used on the same project within a reasonable amount of time

RWS TRAINS UBC

The first class of a new program designed to train members of the United Brotherhood of Carpenters and Joiners (UBC) in ICF construction was completed in October, and Reward provided the training for flat wall ICF systems.

The 500,000-member UBC saw an opportunity to expand into ICF construction and contacted the PCA and ICFA to help design a program to educate trainers in all aspects of ICF construction. These trainers will then go back to their local chapters to train interested members there. The program is projected to turn out 60 trainers each year, who would each train 40 of his fellow union members resulting in 2,400 trained new ICF installers each year.

The week long program was held at the UBC training facility in Las Vegas and consisted of classroom and hands-on training in a variety of ICF systems and accessories. John Ballew of Reward Wall Systems of New Mexico, Inc. represented Reward during the class, and provided field experience to back up the



John Ballew (center) shows corner bracing option to UBC members.

principles that were taught regarding ICF construction with a flat wall form.

“Carpenters recognize the merit of ICFs as a building system,” said PCA Residential Technology Program Manager David Shepherd, “and the transfer of skill is easier than with some of the other building trades. Carpenters use similar tools, like handsaws and glue guns, and they understand the principles of building a plumb and straight wall.

“By the end of the training, the members of the class were saying this system makes good sense, and were switching their thinking from wood to concrete. A couple of them even said they were planning to build their own houses and are now thinking of switching to ICFs.” Shepherd added that the UBC is planning to expand the size of their training facility and will go with ICFs for the walls.

The next course is scheduled for February 2002. Three to four courses will be scheduled each year depending on demand. ■