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## New “Green” is old hat for Faganel



**Faganel Builders has been building energy-efficient, green homes since 1991.**

Recently, “green” has become the preferred buzzword among builders and buyers. But for David Faganel, green is much more than an industry catchphrase or a trendy, symbolic color: it's a core principal he's been dedicated to for almost 20 years.

“Long before anyone with a hardhat and a shingle to hang out was jumping on the bandwagon and touting himself as a green builder, we were out there crafting energy efficient homes,” said Faganel, president of R.A. Faganel Builders, a Batavia-based semi-custom home building firm founded 45 years ago by Faganel's father Robert.

“But unlike many competitors, we don't accept a loosely based definition of the term. To us, a green builder is one that truly measures performance and efficiency based on reputable, consistent standards that are respected in the industry.”

Back in 1990, Faganel challenged his team to re-evaluate all of its construction practices to see how they could be improved. He sent his construction personnel back to school for 14 months to learn new state-of-the-art techniques. Emboldened by fresh ideas and armed with the know-how, the team went on to construct its first green home in 1991.

“Our goal from that point on was to craft homes that were truly energy efficient, healthier, quieter, more comfortable and durable. We wanted to maintain our high level of quality workmanship, but introduce energy efficient amenities that wouldn't be cost-prohibitive to the buyer,” he said. “In short, these had to be green, but affordable. So we created the Millennium III home, in which all the systems and materials work together for greater thermal savings and a healthy interior environment.”

Today, every residence Faganel builds is an energy-efficient, high-performance home that incorporates many green components and an impressive array of construction methods that are carefully selected to save homeowners big money on their utility bills and eliminate indoor air pollution.

These components include 93% energy efficient furnaces; cellulose insulation that yields an R-38 rating in ceilings and R-21 in composite walls, reduces sound, and is mildew and insect-resistant; Energy Star-rated appliances; low-E windows; a whole-house air exchanger with a HEPA filter; a special humidifier with an anti-microbial water pad; a DuctowoRx radiant catalytic ionization anti-bacteria filtration system; engineered, factory-built roof trusses with raised heel energy trusses; and OSB roof and wall sheathing made from a completely renewable resource.

“Our Millennium III green homes use much less energy to cool and heat the interior, which can yield utility savings in the thousands over the life of the home,” said Faganel. “In fact, we guarantee that your average monthly heating cost in any of our new homes will be less than \$100 within the first two years of ownership. Our new Windsor model, which is over 3,000 square feet, even comes with a guarantee that your monthly heating bill will not exceed \$49.”

The key to Faganel's success is his particular approach to green building, which puts a stronger focus on minimizing air leakage.

“At least one third of energy loss is caused by air infiltration and exfiltration,” said Tony Botkin, Partner with Intelligent Energy Solutions—a spinoff company launched by Faganel that provides energy efficiency consulting services to the building industry. “In cold weather, moist, heated air inside your home escapes through gaps, cracks and holes in the building shell to mingle with dryer, colder air outside, resulting in your furnace working harder to maintain indoor comfort. Meanwhile, in warmer weather, hot, humid air enters the home through those same channels, increasing the toll on your air conditioning system.”

To prevent excess air leakage, “we make sure the house is sealed properly,” said Faganel. “That means being meticulous in our construction process by caulking extra thoroughly, venting appropriately, foam sealing the windows, insulating foundation walls with foam board, and using proper house wrap techniques to resist air infiltration and moisture intrusion. The end result is exceptional energy efficiency and more reliable temperature consistency in each home we produce.”

Faganel is so demanding of air intrusion standards, in fact, that every one of his new homes has to pass a specialized test performed by Botkin. This “blower door” test employs a decompressing fan to measure the degree of air exchange inside the home. The lower the score, the better, with a rating of 4 to 6 considered the industry average. Faganel makes sure his homes score approximately a 2 or lower, with an ultimate goal of 1.5. Also, each house is tested with an infrared camera, air flow through the ducts is measured by a duct blaster, and each register is tested by a flow meter.

To ensure ideal indoor air quality, Faganel's team employs a wide range of innovative devices and products. These include air exchangers, anti-bacterial systems, power-vented water heaters, humidity control systems, low VOC paints, and radon removal systems.

Although R.A. Faganel Builders is a certified Energy Star Builder, its homes are head and shoulders above Energy Star standards. For instance, on the HERS (Home Energy Rating System) index—a nationally recognized system used to identify and measure energy efficient homes according to the 2004 International Energy Conservation Code—Energy Star-rated homes typically score a HERS rating of 85 (the lower the score, the better). Faganel's homes, on the other hand, often score a HERS rating of 62.

“We've amassed a stellar reputation in the industry and excellent word of mouth among buyers as the leader in our field and the green builder of choice,” Faganel said. “It's pretty exciting, knowing that we're heading into our third decade of creating homes built to the highest standards of energy efficiency, luxury and comfort.”

Faganel's early head start on green building means that “while other builders are just catching up to the green curve, we'll already be rounding the corner on future innovations, products and best practices,” he said. R.A. Faganel Builders offers a wide selection of single-family designs—each with two to four bedrooms, two to three-and-a-half baths, and 2,227 to 4,217 square feet—that can be customized to match a buyer's preferences.