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Whisper Valley Community

Builder Perspective: One of the ten biggest developments of its kind in the US, this sustainable, master-planned community features 7,500 Net-Zero ready homes.

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Builder interest explodes at Whisper Valley, Austin's new zero-energy-capable community



When investors started planning the 2,062-acre Whisper Valley sustainable, planned community east of Austin, Texas, one of their biggest challenges was to attract homebuilders to join the project and actually build the homes.

As the developer, Taurus Investment Holdings started searching for builders to partner with them in what will eventually become a community of more than 7,500 single-family and apartment homes and 2 million square feet of commercial space, all valued at \$2 billion, two visionary builders raised their hands immediately.

Today, builder interest in Whisper Valley home construction is "exploding," says Douglas Gilliland, managing director of Taurus. For builders and developers, he says, Whisper Valley has become a successful model for new housing development that Taurus plans to take nationwide – and that he predicts others will likely start duplicating.

The reason is that Whisper Valley incorporates a new business model in home building that consumers are demanding: net-zero energy capable homes selling at prices most consumers can afford – all in a planned community that itself is "sustainable."

"Builders and developers are always looking for ways to differentiate and distinguish themselves," says Gilliland, whose investors are based in Boston and Germany. "Green building isn't new. But this comprehensive approach to sustainable housing and community development is new – and is certainly attracting attention," he says.

"This is the first of its kind in the area and we were the first builder to take our floor plans and make adjustments to fit them," says Dennis Ciani, head of marketing for Pacesetter Homes, an Austin-area builder that constructs about 500 homes per year, including most of the new homes in Whisper Valley. "It's been very rewarding and educational...and we've been very successful."

Several attributes drew Pacesetter's interest to Whisper Valley – and made their partnership popular and profitable. "One was consumer demand," he says. The Austin market is already a vibrant place for sustainable and net-zero energy projects as the city of Austin boasts that half the energy it uses already comes from renewable sources – and the city has announced it will reduce its entire "carbon footprint" to zero by 2050.

"We knew people who live here are looking to invest in sustainable technologies that make life easier and less expensive – especially millennial buyers. So when the opportunity came to build in Whisper Valley, we knew we needed to come here."

What also made it attractive, yet risky was Whisper Valley's commitment to offer "sustainable" housing with prices starting under \$250,000.



"That price point opened a huge market, especially for millennials who are now joining the home-buying market and are looking for added value, such as green technologies and lower monthly utility bills," he says.

"We had to work on educating consumers as well as the real estate market," Ciani says. "It turns out that millennials have jumped on it."

Pacesetter is also seeing demand from consumers of all ages and walks of life, including retiring seniors looking to downsize, families looking for sustainable places to raise children and young people buying homes for the first time.

"People have been watching Whisper Valley's development for years, so they knew that there's a lot going on here," says Debbie Ates, a sales

representative for Avi Homes, the other homebuilder constructing new homes in the community. "Some struggle to understand how they might not have any energy bills; what it means to have the potential of a net-zero home. But others come in and know exactly what this is – and they say 'sign me up.' People buying their first home, people buying their last home, and everything in between: They're all looking to lower their carbon footprint."

One of the challenges, explains Gilliland, was to convince homebuilders to do things a bit differently. "Builders have established construction practices. They're used to doing things a certain way because it has always worked for them."

EcoSmart Solution, LLC, a subsidiary of Taurus Investment Holdings, brought together the technologies needed to make a zero-energy capable community of this size possible with affordable prices. The EcoSmart program combines an innovative GeoGrid, solar PV, high-efficiency Bosch appliances and Google Nest products to make the vision for communities like Whisper Valley a reality.

All builders in Whisper Valley are required to hook up to EcoSmart's GeoGrid, a 5-mile loop of underground distribution piping that links each home to a geo-exchange network, engineered and manufactured by REHAU, a global provider of hydronic technologies and a strategic partner in the Whisper Valley project. "It took a bit of time to figure out who was doing what," Ciani says. "But the geothermal loop was already in the ground and all homeowners had to do was tie into it, which turned out to be fairly easy to do."

Builders were also required to adjust their floor plans to accommodate a geothermal heat pump to be located in each home's insulated attic for maximum efficiency. As it turns out, Ciani says, "We didn't have to alter our floor plans very much." And when consumers learned that their heating and cooling capacity came mostly from the earth – and that the cost of the system was already embedded in the home price – "it became a major selling point."

"Another selling point was reduced monthly costs of living through dramatically lower energy bills," Ciani continued.

"The sustainable technologies – the geothermal system, solar photovoltaic panels on the roofs and computerized controls in each Whisper Valley home – probably adds \$15,000 or more to the price compared to similar conventional homes in nearby rural communities east of Austin," he says. But when people consider the price of the home, they don't always consider its monthly costs.

In central Texas, where temperatures average above 90 degrees during the summer months and can dip below freezing during the winter, utility bills are an enormous monthly cost. Whisper Valley's integrated geothermal and solar systems bring those costs down to next to nothing – a reduction of \$150 to \$300 per month in the overall monthly cost for homeowners.

"Millennial buyers have jumped on this," Ciani says. "But they're not alone. Everyone is trying to lower their costs of living, and utility costs are one big way of doing that."

Whisper Valley residents also benefit from federal tax credits for both the solar PV system and the geothermal equipment included in their homes. Residents can expect a \$7,000 to \$10,000 tax credit, providing additional savings on their zero-energy capable homes.



Another selling point for builders and developers has been the healthy living philosophy embedded in the Whisper Valley brand, including community garden-produced organic foods and hundreds of acres of open areas for exercise and outdoor activities. "I thought geothermal and solar would be the major selling point and many times it is," Ciani says. "But many times it's much broader." Builders and developers nationwide are likely taking an interest in the Whisper Valley model because the world is changing," concludes Gilliland.

Austin isn't the only city or region implementing aggressive new energy efficiency standards into local building codes. That makes Whisper Valley's business model attractive because it provides builders and developers the technologies on a community-wide basis at a much lower cost per home – without requiring builders themselves to adapt and install them, usually at much higher per-unit cost. Regardless of what individual builders or developers do, however, green building of all types is the direction the industry is heading, industry experts agree. In 2005, only 2 percent of new home construction included substantial energy efficiencies or renewable energy systems to supplement home energy use. By 2020, more than half of new homes built will feature at least some green technology, according to Elemental Green, a national publication monitoring green building trends in the United States.

Finally, Gilliland says, profits are the bottom line of all businesses, and the Whisper Valley model is no exception. "Builders can exceed their business expectations by being in a community like this because, in the end, they're looking for happy customers." And customers are indeed happy and satisfied.

"People here are excited to have an organic garden, solar panels and no electric bill," says Ates. "They tell me they've been looking for – and hoping for – a community like this for a long time. And now it's here."



Project: Whisper Valley, Austin, TX

Construction type: Sustainable housing community, new construction; opened 2016

Project scope: 239 RAUGEO U-bend vertical ground loops for 239 homes in Phase 1

Architect: ASD SKY

Energy Consultant: EcoSmart Solution, LLC

Mechanical contractor: GEO Enterprises

Developer: Taurus Investment Holding, LLC

REHAU systems used: RAUGEO™ ground loop heat exchange

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