

A large, illuminated sign for 'Whisper Rising' is the central focus. The sign is dark with the words in bright, glowing yellow letters. It is mounted on a stone wall. Above the sign is a glowing arch. To the right is a stone pillar with a stylized leaf logo. The background is a sunset sky with orange and blue hues. The foreground is a gravel area with some plants.

WHISPER RISING

Engineering progress
Enhancing lives

Whisper Valley Community

Homeowner's Perspective: Planned community makes leading green technologies such as REHAU geoexchange accessible to entry-level buyers while cutting energy bills by 90 percent.

na.rehau.com/projects



Whisper Valley makes geexchange accessible while cutting energy bills by 90%

When Terri was looking to downsize from her home in Austin, Texas, she discovered Whisper Valley – a sustainable, net-zero capable planned community under development just 20 minutes east of downtown.

As she researched it more closely, she says, it became obvious this home would be her last.

"I'm a spread-sheet-relationship person," she jokes. "When I started listing all the pros and cons of living here, I didn't even complete my analysis. I knew this was the place."

"I loved the feel of it," says Terri. "Then I got my first energy bill. It was effectively zero. I love it." More importantly, she adds, Whisper Valley represents a new healthy community lifestyle philosophy that is both comprehensive and visionary.

Taurus Investment Holdings purchased 2,063 acres of land and spent nearly a decade planning a sustainable community with more than a third of it devoted to trails, parks, recreational facilities and other open space to encourage healthy outdoor activities. Part of that commitment to healthy open space also includes community gardens where Whisper Valley will produce its own organic vegetables and fruits delivered daily to homeowners along with recipes for cooking that week's bounty.

There's more. Whisper Valley's "amenities center" includes a modern fitness facility and an outdoor swimming pool that can absorb energy from the GeoGrid as needed. Each home is also pre-wired for a built-in charging station for electric vehicles.

At the core of Whisper Valley's sustainability is a unique energy system that allows residents to dramatically reduce their energy use, their carbon footprint and their utility bills. This energy system, provided by EcoSmart Solution, LLC, brings together solar PV, the innovative GeoGrid, high-efficiency Bosch appliances and Google Nest products to make zero-energy capability possible on a community-wide scale with affordable home prices.

"We lived in an old, 700 sq ft home in downtown Austin where our last energy bill was \$300 every month – and that was keeping the temperature at 80 degrees during the day," says Paige, who moved to Whisper Valley in November with her partner Mars. "We're fiscally conservative people, so that bill was a real stressor for us."

"Then we just got our first energy bill for our new home at Whisper Valley," she says. "It was \$25 for our 1,400 sq ft single-family house, twice the living space. We're very happy and a lot more comfortable."

"We're already competing with our neighbors on who can do even better than that," laughs Chapman, who says comparing utility bills has turned into a neighborhood competition to determine the month's energy-saving champ, all the while exchanging energy-saving ideas.

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.

A great part of Whisper Valley's sustainable energy system, built and operated by a Taurus partner, EcoSmart Solution, lies below the earth. A GeoGrid district geexchange system, commonly referred to as geothermal, takes advantage of the earth's steady 75-degree temperature to heat and cool the homes. Five miles of underground piping links the homes together, allowing the entire system to optimize – and share – energy. This grid makes geexchange technology more affordable, because each home only requires one RAUGEO PEXa U-bend vertical ground loop installed in a 350-foot borehole to exchange the earth's energy with a highly efficient Bosch water-to-air heat pump. RAUGEO is manufactured by REHAU, a global provider of PEX piping systems and a strategic partner in the Whisper Valley project.



"Our goal was sustainability at an affordable price," says Douglas Gilliland, managing partner of Taurus of Texas. "I believe we've achieved that."

The geo-grid and solar energy systems are attracting people to Whisper Valley in several other ways.

"In our apartment, the air conditioner ran 18-hours a day," says Paige. "It was noisy and constantly clicking on and off." With the earth's energy narrowing the temperature gap, Mars adds, the heat pump has less work to do "and you can barely hear it, if at all."

Carl and David moved from a new home west of Austin similar to the home they just purchased in Whisper Valley because they say they loved the green technology.

"We had considered putting solar panels on our house. But after we heard about the geothermal technology that comes standard with every home in Whisper Valley, we researched and found out how kind it is to the environment. After that there was no other place we were interested in," says Williams. "We actually felt a cohesive connection with the developer," adds Carl.

Jenn and her husband moved from only a few miles away to their new home in Whisper Valley because of the lifestyle it offered their family. The sustainable living philosophy is, by itself, an education they say they wanted to pass on to their 8-year-old. And the large open areas with parks and trails right outside the door made Whisper Valley a great community in which to raise children.

"We also know that geothermal heating and cooling have a positive impact on our environment," says Jenn. "Every individual makes a difference."

Jenn adds that one of the favorite features of Whisper Valley's EcoSmart energy system for a lot of residents is that home energy use is controlled electronically using Nest technology linked by a community-wide Google fiber network. The easy-to-use system also allows homeowners to remotely control and monitor their energy use for further savings.

"Being an engineer, I was amazed at how exceptionally well thought-out the entire system was, even before they started building," Terri says. "Whisper Valley isn't perfect, but it's darn close."



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

For updates to this publication, visit na.rehau.com/resourcecenter

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained therefrom. Before using, the user will determine suitability of the information for user's intended use and shall assume all risk and liability in connection therewith.

© 2023 REHAU 855.950 07.2023