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Creating A Passive House With Luxury In Mind



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Business

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A four-bedroom Passive House in New Canaan, Conn., by Construction Management Group. William Pitt... [+] VITA DESIGN GROUP

The design for the [modern home](#) for sale overlooking the Ponus Ridge Land Trust in New Canaan, Conn., strikes a serene setting. On 1.74 acres, the sprawling residence measures about 4,000 square foot with four bedrooms - each with en-suite baths - and two terraces and a three car garage.

Yet despite its striking beauty and bountiful amenities what makes the residence unique is less noticeable to the untrained eye.

The home is the first-ever to be built in New Canaan to Passive House Standards, a rigid level of energy efficiency that uses upwards of 90 percent less energy for heating and cooling than do traditional homes. It's air-tight construction allows the entire residence to run on the same amount of power it takes to operate two hand-held hair dryers.

But rather than succumb to the usual soulless, boxy designs that accompany many energy efficient homes, the New Canaan structure marks one one of the first to be elevated to high-end luxury, employing a level of inventive elegance rarely seen in energy-saving designs.

“Passive Houses are more efficient than the average home, but that doesn't mean they can't also be luxurious,” says [Salvatore Zarrella](#), founder of Fairfield County-based [Construction Management Group](#) (CMG) and the team behind the New Canaan home. The firm is building three Passive Houses in Connecticut and is at the forefront of the movement to elevate the energy-saving design aesthetic to luxury living. The company is

also building a [modern home](#) with a glass enclosed herb garden in Stamford, Conn., that is that city's first certified Passive House. It was voted by [Cottage & Gardens](#) magazine as one of the "Most Beautiful Listings of 2015".

"We incorporate all of the basic tenets of Passive Design," says [Michael Block](#), a partner at [CMG](#). The firm's client base is quickly expanding as the trend of Passive Houses gains momentum, he says. "But we also recognize that many people still want a home that includes stunning architecture along with energy efficiency and that's our approach."

The Passive House concept was first developed in Germany about 20 years ago as a way to drastically reduce the cost of home heating by minimizing the amount of heat required. But they are more than just environmentally responsible. Passive Designs also save homeowners money.

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A rendering of Campbell Drive in Stamford, Conn., built by Construction Management Group.

“A typical home the size of the New Canaan project would cost thousands of dollars per year to heat and cool,” says Mr. Block. “But a Passive House of this size would cost in the hundreds per year,” he says. “That’s real savings every year.”

A Passive House achieves this with its thick, well-insulated walls and roof and a near obsessive air sealing to an exacting standard. Buildings are built to capture maximum sunlight through their orientation and through the installation of high-efficiency windows; heat is kept in during the winter and out in summer.

The first Passive House in the U.S. was built in Urbana, Ill., in 2003. By the end of 2016, the [Passive House Institute U.S.](https://www.passivehouseinstitute.org/), estimates that more than 100 houses were certified as

Passive. (The concept has the word ‘passive’ in it because the homes ‘passively’ keep the temperature of the homes at a consistent temperature, rather than actively using energy to heat and cool the structure.)

Though the Passive trend has been accelerating in the U.S., elevating homes to a thing of beauty is likely to dramatically bolster their appeal across the housing landscape including single and multi-family residences, say housing experts.

“CMG is making Passive Homes more appealing by simply building better and more attractive structures,” says Andrew Wood of [William Pitt Julia B. Fee](#) Sotheby's International Realty in Connecticut. “Home buyers at the luxury end appreciate conserving energy but at the end of the day building attractive homes that suits the needs of buyers is how CMG is finding success with Passive designs.”

Beyond the good design, Passive Homes also offer a higher standard for living, says [Mr. Zarrella](#). “The air quality in a Passive House is exceptional because there are less allergens and pollutants compared conventional structures,” he says.

“When you consider the lower energy costs, a quieter living environment and stronger design aesthetic, a Passive House simply makes better sense to a homeowner,” he says. “And that’s why we see a bright future in this construction standard.”



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