

# CMG's Passive House mixes energy efficiency with stunning architecture

by Tim Murphy, HAN Network

Several years ago, Salvatore Zarrella was reading a trade magazine when he came across a story entitled “Green Without Gizmos.” The article described Passive House, an exacting standard for building energy-efficient homes that had begun in earnest in Germany in the 1990s.

“It was transformative for me,” said Zarrella, a Stamford native and home builder who founded the New Canaan-based Construction Management Group (CMG) in 2005. “Passive House is the most responsible standard by which a house can be built, and yet myself and other builders weren’t familiar with it.”

The concept of Passive House construction is straightforward: To build residential and commercial buildings that use upwards of 90% less energy for heating and cooling than do traditional buildings. This is accomplished through several core building principles, including air-tight construction, thick exterior insulation and whole-house ventilation. 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.

Studies at the Passive House Institute US convinced Zarrella that the standard was one he wanted to pursue while building homes in Fairfield and Westchester counties. Last year, a friend and colleague of his, Michael Block, joined CMG as a partner focusing on the business operations of the firm.

“We will continue to build conventional homes of high quality, but we are also highly focused on educating our clients about this wonderful new concept of home building,” said Block.

CMG will start construction early next year on two new Passive House home constructions in North Stamford and is working with the Vita Design Group of Westport on plans for a third home that is for sale on a nearly two-acre parcel at 1303 Ponus Ridge Road in New Canaan. The four-bedroom, 4,000-square-foot house is a semi-glass structure situated on a cliff overlooking Ponus Ridge and New Canaan Land Trust open space. The home is a one-of-a-kind modern design and continues the tradition of progressive architecture that New Canaan is well known for nationally.



New Canaan-based Construction Management Group’s four-bedroom, 4,000-square-foot house is a semi-glass structure situated on a cliff overlooking Ponus Ridge and New Canaan Land Trust open space

“The architecture is stunning,” said Zarrella. “That’s also an important part of Passive House. The homes are the standard for energy efficiency, but we want them to look great, too.”

“A typical home of this size would cost thousands per year to heat and cool,” said Block. “But a Passive House of this size would cost in the hundreds per year. 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.”

Just as important as energy efficiency, says Zarrella, is the high-grade ventilation system, which, among its features, exchanges stale air for fresh, outdoor air at regular intervals.

“The air quality in a Passive House is exceptional,” said Zarrella. “There are less allergens and pollutants. As the New York Times said recently, the air quality is so pure you can taste it.”

With construction costs now only slightly higher (5% on average) than those of conventional structures, Zarrella and Block are seeing the costs come down as the Passive House standard continues to gain popularity.

“Passive House is quickly gaining awareness in our area and the United States at large,” said Block. “We could not be more excited about its future.”

More information: [cmgbuilder.com](http://cmgbuilder.com).



Salvatore Zarrella



Michael Block