

Q and A: City natives bring new kind of home to North Stamford

By Martin B. Cassidy Updated 11:02 am, Tuesday, July 12, 2016



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Construction Management Group executives, Salvatore Zarrella, left, and Michael Block at the site of their new Passive House construction on Campbell Drive in Stamford. A passive home is a highly energy ... [more](#)

STAMFORD — Two city natives hope to bring a new standard of energy-efficient homes to Fairfield County, beginning in their hometown.

Salvatore Zarella, who lives in Stamford's Waterside neighborhood, said the standard, which originated in Europe about 25 years ago, significantly reduces the size of heating and cooling systems, but keeps construction costs near those of a conventional home.

Structures built to the standard are called "passive houses." Zarella's decade-old company, Construction Management Group, based in New Canaan, will use it to

create two such houses on adjacent lots on Campbell Drive in North Stamford.

Zarella said the design incorporates the principles of solar buildings, such as placing windows on the south side of the structure to face the sun, and exacting criteria for air-tight structures with thicker walls, no voids and better exterior insulation to curb energy use up to 90 percent.

"It's the most efficient standard in the world, and it picks the lowest-lying fruit, which is what makes it so beautiful and basically why it is attractive to so many architects and builders," Zarella said.

Zarella, 41, and his business partner, **Michael Block**, 46, explained why they think the "passive house" standard is destined for increasing relevance in Stamford and around the country.

Q: How long have you been partners in CMG?

Salvatore Zarella: I started CMG in 2005. Michael joined last year.

Q: Where did you grow up in Stamford?

Michael Block: I grew up my whole life in Stamford; most of my life in North Stamford, a few miles from this property right here. I now live a few miles over the North Stamford border in Bedford (N.Y.). My whole family still lives here – my parents and my sister and I kind of feel in a sense I never left. This city and area still holds a very special place for me professionally and personally.

Zarella: I've been here my whole life, born and raised for 41 years. I live on the same street I grew up on (in Waterside). My wife and I and my daughter lived in New Canaan for a very short period of time ... and that's why my office is there.

Q: What are your roles in the firm?

Block: I do more of the marketing, finance, operations, business development, press outreach – in a sense, running air traffic control for the business.

Zarella: I studied "passive house" five years ago ... and that was a turning point for

me in my building career. I built my first home when I was 22, and did some speculation building before starting CMG, which is primarily a custom building firm. I've been surrounded by building nearly my whole life.

I studied through the [Passive House Institute US](#), which at that time was the certifying body for the institute, which is headquartered in Derendstadt, Germany.

Block: Though we still build homes to conventional code, we're not moving exclusively to "passive house."

Q: How much more energy efficient will these new houses be than a typical conventional-code residence of the same size? How large will they be?

Zarella: The energy required of two blow dryers will be enough to heat and cool homes on the hottest and coldest days of the year. (It) is a very simple standard and the most efficient standard in the world ... It only cares about the energy component and how you get there can be navigated many different ways. It can be built with straw bales, a conventional timber wall, or insulated concrete forms ... When you boil it down .. it is the envelope in the most important part of the house. The more efficient that wall structure, the better it is at keeping heat in in the winter time and heat out in the summer time. Doing that, you achieve homes that have air quality that is unmatched and energy costs for your typical 2,500-square-foot house of about \$500 or \$600 a year.

Q: Your firm is well known for designing and building conventional-code homes in the area. Why branch into this design model?

Zarella: The bottom line is both Mike and I believe these homes will be among Stamford's most important constructions of our time because of the standard it reaches. No other home has reached this standard of energy efficiency in Stamford. There are some in the United States, but not many.

Block: ... These houses are intended to be the most comfortable and most 21st-century modern family-friendly home with every modern amenity. Stamford has always been a very progressive city in how it is handling the environment. We think it is a perfect way to introduce the concept to the area.

Q: Explain the importance of eliminating thermal bridges and how “passive house” eliminates heat leaking out of buildings during cold weather?

Zarella: All the framing around the windows, around the doors, the foundation itself, or steel penetrations through a building are pathways that heat travels through. ... We refer to them as heat highways. If you think of a conventional frame wall being 25 percent to 30 percent timber, you can almost equate the much higher rate of heat transfer because the rest of it there is no insulation in those areas. In “passive house,” those bridges are cut off. We don’t have those highways from in to out, and it is basically in how the wall is constructed. ... I've never really looked at construction the same way, because I realize how poor our conventional construction methods are compared to this standard.

Q: What type of customer do you think would be interested in hiring someone to build a “passive house”?

Block: If you went to a client and said to them, “We’d like to build you a house. You can have any style you want and any size you want. It will be a house that is economically efficient, is environmentally friendly and has the best and purest air quality any house has to offer.” What client would say, “You know what? Not for me.” It’s the act of bringing the concept to the client ... If you study marketing, there is sort of the pointy and wide end of the cone. We’re still at the relatively pointy end of the cone, but it is getting to the wide end of the cone pretty quickly.

Zarella: I think ultimately it just doesn’t make sense to burn something we all have to breathe in. We are all going to look back and ... say, “We used to burn oil for heat?” It will get to a point where it doesn’t make sense and if every home or commercial building or structure was built to this standard or anything close to it, the amount of our nation’s consumption and energy needs would drop dramatically.