

# The Washington Post

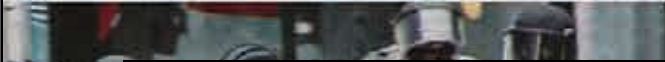
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SATURDAY, MARCH 19, 2016

WashingtonPost.com

Paris terrorism suspect, 4 others in Brussels

**E.U. deal: Turkey to accept migrants**



In an image from a video in Brussels, A. J. Abdellam, left, the suspect in the Paris attacks, is seen with others in a crowd.

The Washington Post | MARCH 19, 2016

## Real Estate



### A MODEL KIT, SCALED TO SIZE

Modular construction is an increasingly popular way to make home additions without sacrificing quality — and without breaking the bank. 16

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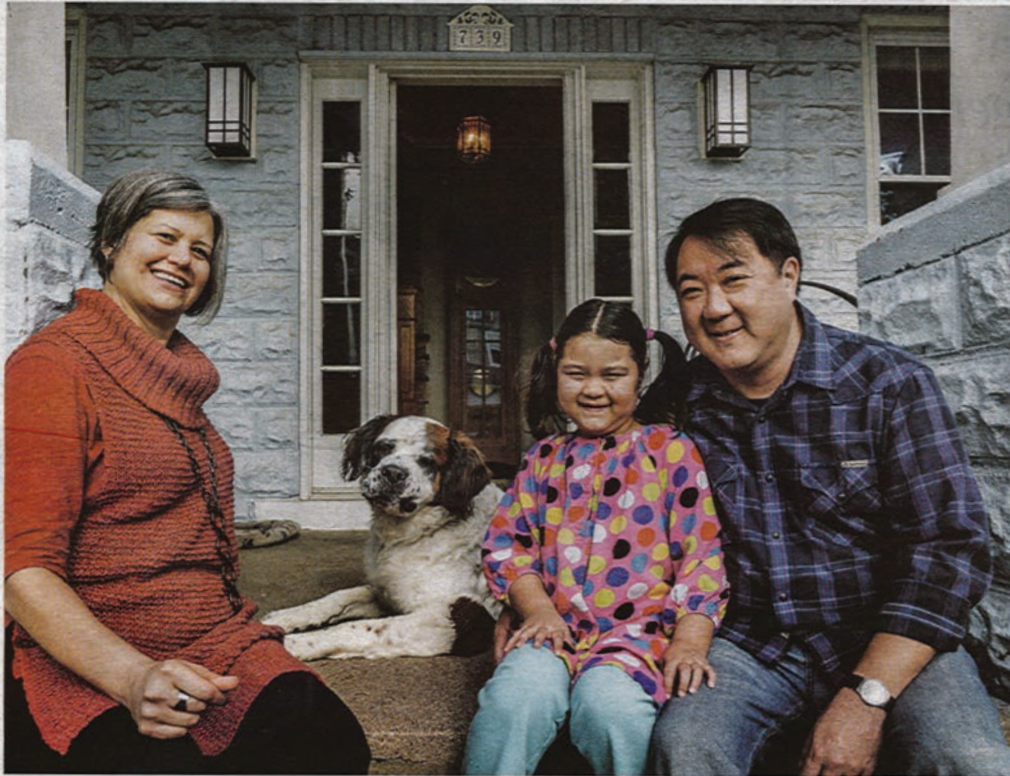
SHERRY MOELLER

Winn  
Design +  
Build



X

# A NATURAL FIT



BILL O'LEARY/THE WASHINGTON POST

Terry and Richard Jeng, with daughter Olive and Petey the St. Bernard, wanted to stay in their South Arlington neighborhood.

BY MICHELE LERNER

When Richard and Terry Jeng bought their tiny bungalow in South Arlington in 2001, they kept their clothes in the attic since the closets in their first-floor bedroom were practically nonexistent.

"We would sleep downstairs and go upstairs to get ready for work," Terry Jeng says. "We often talked about getting a 'real' house, but it wasn't until our daughter was born in 2008 that the house really felt too small."

The Jengs thought about moving, but they love their neighborhood and they both work in Crystal City, an easy commute from their home. They can walk to Metro, Pentagon Row and Pentagon City and love the character of their home, which is on a large corner lot. After interviewing several contractors who told them they'd need to move out for six months and quoted them extremely high prices, they opted to expand their home with a customized but modular addition.

## Modular construction offers a cheaper alternative for customized home additions without sacrificing quality



STEVE HEYL

A modular dormer adds a hip roof to the Jengs' house, which is now two stories. The family stayed in the home during much of the work.

Modular construction, in which a complete home or an addition is built in a climate-controlled factory and then delivered to the home site, has been around since the early 1900s, when Sears and other companies offered "house kits" that were then put together by homeowners or contractors.

"Until recently, modular additions were one size fits all, but through design and manufacturing innovations they have become highly customizable," says Michael Winn, owner of Winn Custom Modular, a division of Winn Design + Build in Falls Church. "It's not your father's modular. Anyone who's picked up a copy of Dwell magazine has quickly discovered that modular construction has become very cutting edge. The modern approach is highly automated, customizable, precise, sustainable and fast."

Winn says most of his business involves homes in Arlington and Falls Church, where the housing stock includes many World War II-era, single-story brick







STACY ZARIN GOLDBERG

One way Winn Custom Modular distinguishes itself is by blending modular construction with high-quality designs and building materials.

homes that he calls "shoeboxes." "A lot of our business is doing 'pop-tops' — adding a second story to these small homes," Winn says.

The customization possible with today's modular units means that each addition can blend seamlessly inside and on the exterior.

"The homes look better when we use premium finishes like cedar shake roofs and Hardiplank siding," Winn says. "We usually put on a front porch or portico to blend the two sections together, too."

#### Custom modular process

Winn says his work with clients follows the same phases as a romantic relationship: dating, when they're exploring the possibility of a project; getting engaged, which is the design development phase and when the homeowners arrange financing through a construction loan or a home equity loan; and marriage, when construction begins. Modular additions generally cost \$200,000 to \$300,000, but Winn says many of his clients opt for high-quality exterior materials and interior fixtures and finishes that can increase the cost to \$400,000.

The Jengs, who added about 1,200 square feet on top of their 1,500-square-foot home, including three bedrooms, a master bath, a second bath and a laundry closet, opted for fiber-cement siding,

a sun tube to add light in the hall bath, and reconfiguring the stairs from the main level to the upper level, spent about \$300,000 on their addition.

"The early stages of the process are the same as in a traditional remodeling project because we have in-house architects, an interior designer, and a kitchen and bathroom designer on staff to work with the clients on plans," Winn says. "Most people come to us either not knowing about the modular option or ambivalent about it. We can do an addition either way."

Modular additions can be designed to blend with almost any architectural style. The goal is to have a seamless transition so that the new space doesn't look like it's modular and doesn't look like an addition at all. However, modular additions work best as an upper-level expansion rather than on the main level because of the difficulty in aligning the floors in a side-by-side addition, Winn says.

The modular process is also environmentally friendly since a computer is used to cut materials rather than an on-site construction worker. The Jengs both work for the Environmental Protection Agency and are interested in green building, Terry says, so a modular addition is a natural fit.

"About 20 to 30 percent of the cost of materials ends up in the dumpster at traditional sites because of waste," Winn says.

Locally sourced materials are another tenet of green building. Winn's modular additions are built in Liverpool, Pa., or Rocky Mountain, Va., both within the typical 500-mile radius used to define local materials.

"The raw building materials come in one end of the factory and in as little as 10 days the modular addition is produced," Winn says. "The factory provides a controlled setting so there's no risk of weather damage or theft of the materials."

One big innovation in the building of modular units is that they are constructed "inside-out," with the drywall installed before the sheathing rather than after, as it is in the field.

"There's normally a race to get 'dried-in' with plywood sheathing to protect everything from the weather on a job site," Winn says. "In the factory, the air seal can be made tighter and more energy-efficient."

In order to ship the units safely and lift them by crane for installation, they are typically built with 20 percent more framing material, which makes them stronger.

Winn, who has owned his design-build firm since 2002, has been building custom modular additions for about five years.

One potential disadvantage of a modular addition is that it has some size limitations since it must fit on the back of a truck, says Winn. He says the typical modular unit adds 900 to 1,000

square feet.

"Opting for a modular addition isn't for the faint of heart," Winn says. "This is a case in which 'measure twice and cut once' is mandatory. The addition must fit, and there's no room for making adjustments on the fly."

Winn and his team take about one week before the unit is delivered to remove a home's roof and prep the residence for the modular unit.

"The unit arrives and is put in place in one day with all the pre-wiring, light fixtures, plumbing and tile work in place," he says. "It looks finished at that point from the outside, but there's still work to be done inside to complete the customization."

(For a time-lapse video of the Jeng addition, visit [youtu.be/DqVdqB1zBrU](http://youtu.be/DqVdqB1zBrU).)

#### Advantages of custom modular additions

Winn clients and Bethesda homeowners Vin and Kerry DeSomma purchased a 1950s-era home that had remained in the same family for more than 60 years and planned to expand it. The couple increased the size of their previous home with the help of a design-build firm, but this time they knew they could only build up given the size of their lot. They say they also dreaded the lengthy process of a traditional remodeling project.

"A neighbor at the local pool told us about modular units,

which we had never heard of," Vin DeSomma says. "We have three school-age kids and a dog, so the most important thing to us is that the modular addition meant we only had to move out of our home for six weeks instead of nine months. We still had the benefit of the design-build process since we could customize the modular addition, but it was much faster."

Winn says a traditional custom addition typically takes at least four months or longer, while a custom modular addition typically less than half the time of a site-built addition. Once the design process and permitting are done, it could take as little as four to six weeks to get the addition completed. He says it's common to have to move out for as little as two weeks.

"You don't have to move all of your belongings, either, the way you often do with a traditional remodeling project," he says. "The ceiling joists stay in place and the home is exposed for only a very short time."

The Jengs sectioned off a couple of rooms in their home so they could stay there through most of the renovation, which was particularly important because they have a St. Bernard and it can be hard to find temporary housing that will take a large dog.

The shorter time frame helps keep labor costs down and limits how much homeowners must spend on alternative living arrangements.

"Custom modular additions have the potential to be more affordable, but most of our clients add high-end features and finishes that add to the cost," Winn says. "In general, modular additions cost about 10 to 15 percent less than additions that are built on-site as long as you're comparing an apples-to-apples remodel with the same fixtures and finishes."

The DeSommas increased the size of their home by about 30 percent, to 3,500 square feet, adding four bedrooms upstairs, each with a walk-in closet, a master bathroom, a laundry room and a hall bathroom. They turned the first-floor master bedroom into a den and knocked down a wall to create a great room. The entire project cost less than \$400,000, including upgrades such as hardwood flooring, a frameless glass shower door and tile flooring in the laundry room.

"It's interesting that most of the homeowners who are choosing modular additions are young families," Winn says. "Older homeowners don't have a positive impression of modular homes and think they're low quality. Younger people, especially with growing families, understand the benefits and wonder why everyone doesn't opt for a modular addition."

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To see more photos of the Jengs' modular addition, go to [washingtonpost.com/realestate](http://washingtonpost.com/realestate).