

The Green House Effect

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So radical was Jayme Stevenson's plan for her dream house that she knew she could never build it. Not in Darien, where she lived with her husband, John, and their five children. You see, Jayme's home would have no traditional ornamentation, such as clapboards, shutters or gables. Instead the modernist building would get its beauty from natural materials, functional design, and in her case, earth-friendly efficiency. "There's a very traditional New England culture in Darien," she says. "Modern architecture just isn't accepted and I wasn't going to put a modern house on our street." So, the Stevensons satisfied themselves with planning a modern addition for the back of their Colonial house, where it would be out of public view.

Architectural plans were drawn up, a contractor hired, and then, three weeks before construction was to begin, everything changed. While walking Casper, the family's golden retriever, Jayme saw a neighbor who told her he had decided to sell two and a half acres of undeveloped land behind his house. Because the "back lot" is completely unseen from the street, a full-fledged modern house suddenly seemed possible. And the rest, as they say, is history. The Stevensons bought the land, scrapped the addition, and began planning a brand-new house that—thanks to being released from the constraints of the old-school streetscape and of working with an existing structure—could be as modern, green and cutting edge as Jayme imagined.

It's not at all coincidental that both the Stevensons' architect, Amanda Martocchio, and builder, Prutting & Company, hail from a few miles up Route 124, in New Canaan. After all, it was on a house tour in that town where Jayme fell in love with the work of Philip Johnson and the other influential mid-twentieth-century architects who made New Canaan something of a modernist mecca. "Those architects had innovative ideas about trying new things, but their houses actually aren't that livable today," Martocchio explains. "Now, though, we're lucky enough to have the technology needed to deliver on their ideas."



The clean lines of the kitchen are connected to the sleek white Zodiac Stone counter surface that tops the oversized island. Jayme Stevenson is well-equipped to fix dinner for her family of seven, with Wolf cooking appliances and Sub-Zero integrated refrigeration from Aitoro in Norwalk. The bamboo-and-Corian serving tray and silver teapot (on the shelf above the stove) are from Seacloth. White dinnerware and an AllClad pot come from Williams-Sonoma. Locally sourced bluestone floors are warmed by radiant heating.

For example, to accommodate the Stevensons' relaxed, outdoorsy lifestyle, the house's exterior walls are almost entirely glass, much of which slides open onto outdoor patios, balconies, rooftop decks and covered open-air rooms. That's possible because Martocchio put all the closets, cooling ducts, plumbing mains and electrical supply lines in a "spine" wall that runs down the center of the house—a classic modernist tactic that frees up the exterior walls for glass. But unlike the drafty, oft-fogged glass panels used in the 1940s and '50s, these outsized windows are super-efficient, with an inch of argon gas sandwiched between double panes and a "low-e" coating that blocks the transfer of heat through the glass. Similarly, high-tech floor trusses (made from recycled steel and minimal wood fibers) provide a wide-open floor plan without the structural woes of some original modern architecture.

Despite all the engineering improvements, though, this house is unquestionably a stylistic sibling of those first modernist dwellings. There are the classic flat roofs, of course, and the peaceful natural finishes—slate, white oak, mahogany, onyx, and cork. And, like its predecessors, the building is carefully situated in its environment, a hill that might be the highest point in Darien. The entire plan started with Jayme's desire to have morning sun fall on the kitchen breakfast bar and to see sunsets from the dining and family rooms.

Still, the Stevensons have taken modern into the twenty-first century, by incorporating numerous state-of-the-art "green building" ideas that reduce the family's consumption of natural resources. "Modern doesn't

necessarily mean green,” Amanda says, “and green doesn’t necessarily mean modern. But because both involve pushing the envelope of design and technology, they work really well together.” Thanks to the flat roof, for example, you can’t see the solar panels that generate much of the family’s electricity. This is how their system works: When the home needs more power than the photovoltaic array can provide, it draws additional juice from the utility lines. When it’s producing more energy than the family is using, the excess power charges a battery that will provide backup power in case of a blackout (in lieu of a generator). And when that battery is full, excess electricity actually goes out onto the power grid, through a two-way meter that credits the Stevensons for their contributions.



clockwise from above: A Lucite table from Dovecote anchors this conversation zone in the family room. Lunchbox photograph is by Claude Simard. The oval wood platter is from Seacloth. A custom Jens Risom dining table is set with china from Mis en Scene in Greenwich, on the wall, a painting from Lennon Weinberg Gallery in New York. The bed below, Joshua Rose’s Red River, is decked in organic cotton linens from Anna Sova Luxury Organics.



The flat roofs also hold an invisible rainwater re-use system that collects the water that lands on them, channels it through pipes inside the walls, and into a giant cistern under the backyard, where it supplies an automated irrigation system. Meanwhile, the heating system burns bio-fuel, made partly from soybean oil, and heats the house by warming the floors, an efficient technique that keeps the heat near the people, unlike hot-air heat, which tends to rise to the ceiling. It also feels great under foot. “We weren’t trying to create the greenest house ever built,” says John, a money manager who commutes across a second-floor patio to his attached home office. “We just chose things that made sense for our lifestyle.” And that fit the budget. The couple has plans to go even greener in a couple of years, by adding a solar water heater on the kitchen

roof and planting a low-maintenance garden on the garage roof, where the greenery will provide natural summertime cooling for the house below and cover a swath of lifeless rubber roofing with oxygen-producing greenery.

If a living roof sounds far-fetched, consider the grass pavers that already exist in the front yard. Eliminating the need for a swath of blacktop, a grid of heavy-duty plastic was placed under the turf, where it protects the lawn's roots from being crushed by vehicles that drive on it. "I always have to tell delivery people and caterers twice that it's really okay to pull right up to the front door," says Jayme. "We've had dozens of trucks parked on this grass, and it's never been harmed."

Not all of the house's greenness comes from technology, though. Much is just common sense. Because their four daughters are nearing the time when they'll move off to college, they don't have private rooms that would soon sit unused. They bunk two to a room, dorm style. "It's character building," Jayme says. And this casual family needed no formal living room, just a large family room. The vast quantity of slate used for floors, countertops and exterior walls was all quarried in upstate New York, eliminating the long-distance shipping required for so many other stone choices. And all the paints, clear finishes, adhesives and carpets are what's known as "low-VOC," which means they don't release harmful gases into the air. But, for good measure, there's an air-exchange system that brings a steady supply of fresh air into the building—after using expelled air to bring it to the ambient temperature. "When I come into this house, I feel like I can breathe," Jayme says. "It's emotionally comfortable, it's incredibly livable, and it feels so good to know it's green."

Resources

Prutting & Company Custom Builders, New Canaan, 203-972-1028; prutting.com

Amanda Martocchio, New Canaan, 203-966-5707; amandamartocchio.com

tag-arts art advisory services, Bedford, New York, 212-920-4146; tag-arts.com