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The Beauty of Zero

Dovetail Construction is greening Richmond's historic architecture, one house at a time.

BY [EDWIN SLIPEK](#)

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Scott Elmquist
 Paul and Julie Weissend inspect renovation progress on the third floor of Goshen, a historic Gloucester County farmhouse that dates to 1750 and where the overall project includes the drilling of geo-thermal wells.

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When she moved from Miami to Richmond in 1987, Julie Wescott Weissend became captivated by Richmond's history. She was especially fond of scoping out the city's old neighborhoods. One day in 2006, while driving along Brook Road near the main post office where the street dips into a shallow valley and crosses train tracks — the view of the downtown skyline caught her eye. "It looked like Oz," she recalls, smiling wide. Then, turning around, she spotted a hulking, rusting and corrugated metal truck repair shop. It was perched near the brow of the slope. Where some might see a candidate for the scrap yard, Julie saw recycling possibilities of a different kind.

She and her husband, Paul, were looking to move their office. The co-owners of Dovetail Construction Co., which specializes in high-end renovations, they decided to move their business operations out of their home on Stuart Avenue in the near West End after a neighbor relayed what a woman had said upon noticing a truck, emblazoned with the Dovetail logo, parked for a long time at the Weissend house. "I hear they do good work," she remarked archly, "but they take *forever*."

The Weissends bought the dilapidated shed — a former trolley car barn for the Richmond–Ashland Railway Co. — and rehabilitated it. The feat in and of itself is hardly remarkable, but the Weissends didn't just preserve and rehab the building and their company, which now employs nine people full time, they went green. Not the usual, for-marketing-purposes-only shade of green, mind you.

The Weissends installed solar panels near the front door of their new office and drilled four wells 200 feet deep to capture geo-thermal heat from within the earth to convert to energy for temperature control. The building's heating, air conditioning and hot water all come from the geo-thermal heat pump, which emits no carbon dioxide, considered to be a major factor in environmental air control.

The 6,000-square-foot Dovetail office complex is completely energy self-sustainable. So much so that the only bill the Weissends receive from Dominion Virginia Power is for \$15, the minimum monthly administrative fee.

The total value of the renovations was in excess of \$300,000, according to city real estate records. But that's nothing compared to the real value of the project: It not only fulfilled Paul Weissends' dream of being completely energy sufficient, it's become a shining showcase for Dovetail's special ability to converge construction, neighborhood revitalization, historic

preservation and sustainable design.

"They are among a growing number of committed professionals who are not only talking [green] but living it," says Patrick Farley, founder of Watershed Architects and a leading advocate for sustainable architectural design. "They raised the bar at that old trolley repair barn — it was a tour de force."

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Scott Elmquist
A paved, yellow-brick sidewalk leads to a former metal trolley car barn on Brook Road in North Side that was restored to serve as offices for Dovetail Construction.

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From 1907 to 1938, the old shed served as a barn for the Richmond–Ashland trolley line, carrying passengers from a station that still stands at Laurel and West Broad streets to Hanover County. Tracks entered one end of the drafty shed and extended out the opposite side.

With the assistance of Walter Parks, a Richmond architect whom the Weissends knew, and architectural historian Kim Chen, the building was listed on both the state and national registers of historic places. With the building eligible for preservation tax credits, the overall project became more economically feasible.

Working with Parks and using ideas from local architect Dan Ensminger, the Weissends inserted a modernistic and colorful office structure, within the confines of the newly-restored metal barn. Then came the green.

Since he was a boy, Paul had been something of an environmentalist. He observed nature closely, gardened — he subscribed to Organic Gardener magazine when he was 12 — and as a carpenter liked to work with natural materials. "He was determined that the building would be net-energy zero," his wife says.

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Scott Elmquist
A colorful, boxlike addition was inserted in the historic structure and is heated and cooled by geo-thermal wells.

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Julie's eureka moment came after attending a number of out-of-town conferences of the United States Green Building Council, which promotes construction to standards known as Leadership in Energy and Environmental Design, called LEED. A local program sponsored by Leadership Metro Richmond introduced her to such local green building projects as CarMax's headquarters complex at West Creek in Goochland County. "I realized that sustainable design optimizes all [aspects of construction] programs — makes them go further," she says.

Not every part of the building's transformation went smoothly. To fabricate storage cabinets in the offices, the Weissends

selected a particle board with an 84 percent composition of recycled sunflower hulls. After being installed, the cabinet doors warped, requiring the application of reinforcing steel angle irons and some replacements. The new doors were a contaminated shipment: Some six months after being installed, there was an infestation of pantry moths that emerged from within the board, their larvae already embedded there.

By spring 2010, however, with the building's history documented, the construction dust settled, drills silenced, paint dried, and bugs eradicated, the Dovetail complex had the distinction of becoming the nation's first nationally registered historic building that boasted being both net-energy zero and LEED platinum certified, the highest ranking for environmental construction standards.

"They are bright, imaginative, ethical, have amazing values, and think of everything," says Marilyn Spiro, a Richmond clinical psychologist, who with her husband, Jack, a professor of religious studies at Virginia Commonwealth University, hired Dovetail to tackle a number of renovation projects at their Fan District house. "They live outside the nine dots."

But things would get more interesting — and challenging — for the Weissends.

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Scott Elmquist
With the removal of a large addition at the rear, the Weissends added a new kitchen whose scale and detailing is up to par with the spaces in the original house, which was built in 1914.

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Perhaps Julie and Paul Weissend's path as business partners and advocates for sustainability was meant to be.

Julie and Paul's respective parents have been close since their fathers served side-by-side as Marines based at Quantico. Dion Weissend and Bill Wescott (Julie's father) found themselves frequently lined up alphabetically. Their wives also established an ongoing friendship. As children, although Julie and Paul saw each other on occasional family outings, they'd gone their separate ways.

Julie grew up in Miami's Pinecrest neighborhood. Summers usually included visits to her grandparents in Oil City, Penn. "I loved chipmunks, I loved the woods and I never wore shoes," she recalls.

In high school she threw herself into club activities and served as senior class president. Her father by this time was a self-employed concrete engineer. After her parents divorced, Julie's mother (who later earned two master's degrees) supported herself by selling antiques at periodic sales held in the family garage. "When we'd drive to Pennsylvania to see our grandparents, we stopped at every yard sale," Julie says, rolling her eyes.

Julie's father took her to business meetings and presentations, job sites and after hours on explorations across South Florida. "He took me around everywhere and gave me a great foundation [in how things operate]," she says.

With college approaching, Bill Wescott suggested his daughter, who had taken drafting, major in architecture or interior design. But Julie diverged: She graduated from University of Florida with a finance degree. "He was gregarious, totally an idea guy, an eternal optimist, but not a detail guy," she says of her father. "When you grow up with someone like that you realize that it's necessary to deliver, to complete a circuit."

Paul Weissend's career path was more circuitous. He was reared near Rochester in Webster, N.Y., and still recites his hometown's motto: "Where life is worth living." His authoritative father was a community college professor of recreation and physical education and owned a gymnastics club.

Paul says he especially worshipped his grandfather who lived next door and was a carpenter: "He let me use his tools and let me make things from scraps of wood. I later took wood shop in school."

Paul read voraciously, subscribing to woodworking and gardening magazines. In 1977, after high school, he attended community college with the idea of going into engineering. He also worked part-time framing houses. "It was brutal," Paul

says of winters working in upstate New York. "It was the tundra," he says, "You couldn't even grip the nails, they stuck to your fingers."

He fled to the University of Arizona in Tucson where he continued working in construction while majoring in information-management systems. After graduation he returned to Rochester and got back into construction business. In 1983 he started Dovetail Construction. "Dovetail meant strength and precision to me," Paul says.

In 1985 Paul moved to metro Washington as a subcontractor to remodel storefronts at Springfield Mall. With additional side jobs, he sometimes worked 100 hours a week. "I was determined to make a living," he says. He was later dispatched to other shopping center construction jobs in Denver, Kansas City and Syracuse, N.Y. "I was constantly on the move and didn't have much of a social life," he says. "Everything I owned was in my truck."

Things changed when Paul landed in Miami for his next assignment. His father, who'd kept up with the Wescotts, suggested he give them a call. He reached Bill Wescott, who took things a step further. "You'd like Julie, you should call her, ask her out for lunch," he told Paul. He did.

They started dating and moved to Richmond (Julie got a job in commercial real estate finance at what was then Sovran Bank). Paul picked up where he left off in Florida, working on shopping mall storefronts at Chesterfield Towne Center.

In 1988, they married.

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Scott Elmquist
All of the interior surfaces, including the side paneling, fireplace, coffered ceiling and parquet floors of the stair hall at 2710 Monument Ave. were refinished.

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After three years at Sovran, however, Julie was getting stressed and left the bank in the early 1990s to join her husband at Dovetail Construction, which slowly began picking up residential construction work. Moreover, they began putting down roots in Richmond. The Weissends joined the Mary Munford PTA even before their two children were old enough to be enrolled there. Later, realizing there wasn't a budget for a new school playground, Paul volunteered the help.

"I love Richmond," Julie says. "It validates our choices. I almost envy our kids because they can say that they're from here. They are part of a solid root system."

"You need to come into a community and do the right thing and evolve into the community," Paul says. "Now we feel rooted. It gets down to being stewards."

Throughout the 1990s and into the 2000s, those roots were spreading. Dovetail picked up more residential work. Soon after completing their Dovetail project on Brook Road — which quickly became a billboard for their company's approach to design and construction, a laboratory for environmentally smart practices and a highly sought-after venue by not-for-profits for special events — the Weissends decided to move from their home on Stuart Avenue.

They'd been happy living in their 1930s, Tudor-style house on Stuart where they were raising their two children, Mary Genevieve (now 19 and a student at Virginia Tech) and Grey (17, a senior at Maggie L. Walker Governor's School). They were pleased with the interior renovations they'd undertaken. But Paul was restless: "He is constantly researching things and trying to figure out how to make things better," Julie says. "But when he started redoing the redo, we thought it'd make more sense to renovate something that really needed it. Wouldn't it be really cool to find a needy place and give it some tender loving care?"

They found a worthy candidate, this time not on the other side of the tracks (or specifically, *on* the tracks), but with a 10,000-square-foot house on Monument Avenue. They were particularly drawn to the street for its sense of permanence. "I

love Miami, but it was about the present," says Julie. "It's hard not to be awed by Monument. It's substantial and while obviously planned, there is uniqueness. There's a pride of place that's palpable."

Paul's earlier construction experiences remodeling scores of wooden storefronts had altered his zeitgeist. "In building stores in malls," he says, "there's so little permanence. And it got frustrating for me — it was kind of wasteful."

In 2009, the property the Weissends tackled at 2710 Monument Ave. wasn't for the faint-hearted. On the plus side, it had been built in 1914 for Rosalie and William H. Schwarzschild and contained grand spaces, elegant beveled and stained glass windows, rich paneling, parquet floors and other intricate detailing. The mansion had once befitted the Richmond grandee who founded the jewelry company that still bears the family name and established Central National Bank (and built its distinctive art deco high rise headquarters at East Broad and Third streets).

But the classical-styled house hadn't been lived in for 40 years since its conversion in the 1960s for use by the Senior Center of Richmond. And while the building had been altered by such obviously fixable things such as institutional restrooms, more problematic and intrusive was an architecturally incongruent, blocky and windowless 40-foot-by-40-foot multipurpose room that had been glommed onto the back.

"We must have shown the property to 30 different parties but nobody could get past that horrible addition," says Ceci Amrhein, who with her husband, Bill Gallasch, also a real estate agent and Monument Avenue resident, regularly lists and shows old and historic residential properties. "It was made of aggregate concrete blocks; it was the *ugliest* thing you've ever seen in your life."

Undaunted, the Weissends moved forward. "We wanted to test our mettle," Julie says. Fortuitously, they located 80 pages of original drawings and architectural specifications at the Library of Virginia. These included hand-written notations by both the prominent local architect, D. Wiley Anderson, as well as the client.

First, the Weissends ripped off the rear addition. "This left the back of the house open with a three-story, gaping hole," Paul says. "We were even able to drive a Bobcat front end loader into the basement for demolition."

Where the multipurpose room had stood, the kitchen wing was rebuilt: Its ample doors now open onto a new and handsome double-story back porch that equals the original house in scale and quality of construction. Replacements for some of the almost century-old roof tiles were ordered from the original manufacturer, Ludowici, in Ohio, which had been listed on the original drawings. The broad front porch was rebuilt. And while almost all of the panes of beveled glass were in excellent condition, all 90 windows in the house were repaired and reconditioned. Interior woodwork was stripped, carefully cleaned and refinished. An impressive three-car garage was wedged into the backyard, its bays opening onto the cobblestoned alley.

Even for the Fan District and the city's other historic neighborhoods, where high preservation standards can be de rigueur, the Weissends' resuscitation of the former Schwarzschild house turned heads.

"It had been a gaping hole on Monument Avenue," says William Martin, director of the Valentine Richmond History Center, citing decades of institutional use and years the house sat vacant. "To have the vision to do what the Weissends did is remarkable."

Calder Loth, an architectural historian and author who lives in the Fan and has toured the house, adds his blessing, "A lot of the original fabric was in place, but everything was done right — down to custom-built radiator covers, the cleaning of the paneling and the oak graining. It is all very well done, *seamless*."

And yes, the building is now green. Floors offer radiant heat from five geo-thermal wells that were drilled into the backyard — down 400 feet (twice the depth of the wells on Brook Road). The drilling process reportedly rattled neighbors' pictures and nerves.

"Good vibrations," Paul says.

If going green makes so much sense, why isn't everybody doing it?

For one, it's more expensive. While the Weissends decline to break down the specific costs, drilling geo-thermal wells 400 feet into the ground clearly isn't cheap. "You have to consider the long-term savings over the short-term expenses," says Paul, who insists that the reduction in energy costs makes up the difference, usually in short order. At Dovetail's Brook Road offices, the installation of the solar panels paid for themselves within the first year, Paul says.



Scott Elmquist
The Weissend family — Julie, Mary Genevieve, Grey and Paul — on the front porch of their Monument Avenue house, which before renovations housed the Senior Center of Richmond.

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Marilyn and Jack Spiro are among the clients for whom Dovetail has completed numerous projects. "Years ago we had to rebuild our porch after a storm and the brick mason that Paul wanted wasn't immediately available, and someone else was put on the project," Marilyn Spiro says. "When the job was finished some things weren't right. It could have been patched up, but Paul wouldn't hear of it. He ripped it apart and did it over."

When the Spiros needed a laundry room and didn't want it in the basement, they suggested that a downstairs bathroom be converted for that use. "Paul wouldn't hear of it," Spiro says. He found a closet upstairs for the laundry.

"It was incredibly clever," Spiro says. "What they did is the difference between making a wonderful house and an extraordinary house."

The Weissends say they are drawn to returning to sites they have worked on previously, sometimes returning to a house to make changes and updates for a third consecutive owner. Thus is the challenge of Richmond's historic housing stock.

"We tend to think that new buildings are all great, but the real challenge at both the residential and commercial scale is in this huge stash of existing buildings," Paul says of his adopted city.

"We're the test pilots and offer things we know will work," Julie says. "We want comfort, healthy environments, better air quality and a great aesthetic. Our basic tenet is if do it well, you don't have to do it over again." S

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