

# *SIMPLY SUSTAINABLE*

How the Brachmans built their efficient and eco-friendly dream home in Pound Ridge with BPC Green Builders and Trillium Architects

BY Asher Intebi

PHOTOGRAPHY BY Carlos Marques

Interesting is an understatement in describing Philip and Ronnie Brachman and their Pound Ridge home. They like to keep each other's company and to ballroom dance even while alone together at home - and their new modern home in Pound Ridge is the perfect place for them to do just that!

Counter to stereotypical retirees migrating to the warm weather of the South, the Brachmans left their lives in Atlanta and headed North to build their forever home. As frequent tourists to New York City, the couple knew they wanted to be close to the vibrancy and excitement of Manhattan, but were looking for someplace more private to call home. This started their search. After exhaustively searching communities within their target radius of the City, they found that only the Bedford area offered the kind of neighborhoods they liked, with properties that could fit their requirements for efficiency, privacy, and design. So, Ronnie reached out to Mike Trolle of BPC Green Builders and Elizabeth DiSalvo of Trillium Architects, to help them find a site and create the custom home they envisioned. When they eventually found an expansive piece of property on the top of a raised lot, at the end of the cul-de-sac, with almost no adjacent houses in sight, they knew they had found the place.

Philip, a retired physician, and Ronnie, a retired technology systems analyst, were the savvy clients that did their research and knew what they wanted when they first met with the BPC and Trillium teams – so much so that Ronnie taught herself to use a computerized drafting software and came prepared to the initial design meetings with her own plans and ideas. As avid gardeners, enthusiastic home cooks, and, of course, avid ballroom dancers, Ronnie and Philip created a home that both expresses and facilitates their passions and pursuits. Floor-to-ceiling windows and glass doors bring the sprawling gardens into the house. A large granite countertop establishes that the kitchen is built for use, not for show. The open layout purposefully affords ballroom dancing to move freely from the living room, to the dining room, and into the hallways.



## The Brachmans used efficiency and sustainability as design standards in tailoring the house to their lifestyle.

Imperceptibly massive insulated walls and high-performance triple-glazed windows encase the house to drastically reduce the amount of energy and equipment needed to heat and cool the house, a principle characterizing the 'passive house' movement. Interconnecting rooms and shifting volumes of the house create diverse spaces without reliance on excess doors and partitions. An array of photovoltaic panels is mounted to the roof to power the home and charge the couple's Teslas. This system goes beyond a net-zero energy offset and produces more electricity annually than the couple can actually use; feeding energy back into the electric grid, to provide renewable energy to other houses in the community. In a way, the efficiency of the home is evident even in the furniture and objects in the house. Ronnie and Philip created a home that both expresses and facilitates their passions and pursuits. Floor-to-ceiling windows and glass doors bring the sprawling gardens into the house. A large granite countertop establishes that the kitchen is built for use, not for show. The open layout purposefully affords ballroom dancing to move freely from the living room, to the dining room, and into the hallways.

There's no clutter, no frivolous décor, no excess furniture... and only two chairs at the dining room table and two chairs in the living room! The house is made to fit Ronnie and Philip! As Philip says, "We intend to live here and die here, so we made it to where we wanted it to be. We're not building it for anyone else. We're not worried about what happens after we're gone. It's just for us."



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With Trillium's design and BPC's execution, the house takes advantage of a wealth of smart architectural and construction techniques - maximizing energy efficiency and reducing the house's carbon footprint. As Mike Trolle, BPC's Co-Founder and Principal, put it, "It's rare for the architect to understand the building science well. There are only a handful we've ever seen. Trillium certainly does." The walls are filled with a mineral wool batt insulation, a highly insulative material that has significantly less embodied carbon than its plastic alternatives. Built with a concrete-less slab, the house sits flush to grade like a traditional slab, but is assembled of wood framing and high-performing insulation rather than concrete. This method helps push the home towards being carbon-neutral by replacing the carbon typically emitted by concrete production, with wood, a material that sequesters carbon from the atmosphere as it grows. The elimination of concrete also allows a more continuous wrap of insulation around the house, reducing thermal bridges or heat sinks. For Ronnie and Philip, this means being able to walk around the house comfortably barefoot all year.

Even with motivated homeowners doing their own research, it takes a team of experts to pull off the highly technical feat of designing and building a home of this caliber. Philip Brachman knew they had chosen the right team for the project, saying "Having the right people doing the right things, that you can talk to, you can trust, and who listen to you, is really key... It's a group project." The combination of BPC's specialty in building green homes efficiently and affordably with Trillium's expertise in sustainable design, LEED, and the Net Zero and Passive House movements, brought the mastery needed to create this home. The Bachmans are loving their custom home, and appreciating the benefits of building sustainably. They're so happy with the house that they're dancing all the way... across the house!



Philip and Ronnie's one-of-a-kind shower in the master bathroom is a spectacular example of their home catering to their specific lifestyle. The Brachmans executed on their vision of not only an unusually spacious shower with opposing shower heads on either end, but also on using massive five-foot by ten-foot tiles to line the walls and floor. The logistics were not simple, but BPC and Trillium were able to make the couple's dreams a reality. The final result is an immaculately detailed spa for two, with almost no joints whatsoever. To top it off, the shower looks out into the gardens, with a vast expanse of glass to bring in the natural light and capture the views of the landscape.

The sustainability of the house extends to the entire six-acre property, characterized by a garden passionately tended to by Ronnie and Philip themselves. The planting palette is carefully selected to take advantage of native species that can thrive in this climate naturally once established, without the need for an irrigation system whatsoever.

The design and construction of the project were completed using the increasingly popular design-build process, in which the builder and the architect are onboard together from the beginning of the project. With a seasoned team like BPC Green Builders and Trillium Architects, this process allows collaborative dialogue to start immediately, provides for the builder to buy-in on the design vision, and for the client to capitalize on the builders' construction expertise and cost input to achieve production goals and efficiencies. "By the time construction starts, everybody understands each other and what we're building," Elizabeth DiSalvo said. "We're totally invested and on the same page."

