

WINTERGREEN

WinterGreen is a monthly publication from **Steven Winter Associates** designed to keep you updated on the latest news and information regarding energy efficiency, sustainability, and high performance buildings.

TWIN PARKS SELECTED AS EBIE FINALIST

In the summer of 2011, SWA worked with real estate developer, Omni New York, to significantly reduce energy consumption in the Twin Parks, master-metered electrically heated complex. Located in Bronx, NY, Twin Parks had 100% occupancy and a population of low-income tenants occupying its 274 units. One of the main challenges was to implement major changes with little disruption to the community. Omni New York, Renewal Construction, and SWA approached the project from the inside out, beginning with large system upgrades, such as the replacement of electric heating with a hydronic distribution system, variable frequency drives for heating circulation pumps, an energy management system, and revamping the ventilation system. After the completion of core retrofits, the envelope of the entire building was reinforced with air-sealing, compartmentalization, and installation of double-pane windows.



Twin Parks — Bronx, NY

Final results of the Twin Parks retrofit show significant source energy reduction, saving 302 megatons of carbon dioxide emissions annually, mainly due to the conversion from electric to gas-fired heating, coupled with baseload reduction measures. Quality of life for the tenants has improved dramatically as a result of the rehab, which the owner achieved while also reducing the energy consumption and carbon footprint of the buildings.

The 274-unit, Bronx housing complex, Twin Parks, marks SWA's fourth project selected as a finalist for an EBie Award. Ryan Merkin, SWA's Director of Multifamily Energy Services, along with project team members from SWA, Omni New York, and Renewal Construction, are nominated for the Power to the People category, which recognizes the greatest reduction in building energy use. Winners will be announced at a gala event taking place on June 9, 2014, at the Hard Rock Café Theater in New York City.

Read the full press release: <http://www.prweb.com/releases/2014/05/prweb11813032.htm>

For more information, please contact Ryan Merkin, at rmerkin@swinter.com.

BUILDING GREEN IS BUILDING SMART

Murphy Brothers Contracting, located in Mamaroneck, NY, is an award winning business that believes building green is simply building smart. The 35 year old family-owned business is vitally concerned with the impact its work will have on future generations. For this reason, Murphy Brothers has made it the company's goal to build energy-efficient, environmentally responsible, and beautifully designed homes.



Installation of solar roof shingles at the Shore Road project.

This commitment is evident in the Shore Road Project, a new 2,700 ft² single family home located in Old Greenwich, CT. Designed by local architect Rex Gedney, the home features the first installation in Fairfield County of Dow Powerhouse Solar Roof Shingles. Solar shingles provide the same protection, durability and flexibility as traditional shingles. Visually appealing, they are designed to blend with standard home roof construction. The 4.5 kW system replaces over 600 ft² of conventional roofing — the solar shingles ARE the roof — and is estimated to provide roughly half of the home's daily electric usage.

The Shore Road Project includes numerous enhancements above the typical energy features of a home built to the current code. The basement and above grade walls were constructed with R-20+ insulated concrete forms (ICF).

PASSIVE HOUSE IS GOING BIG!

Thermal images taken with an infrared camera show significantly reduced thermal bridging and fewer cold spots compared to typical wood frame construction. The concrete walls also offer increased resilience against natural disasters, an important feature for structures located in coastal areas.

The underside of the roof deck has been super insulated to R-70, creating a semi-conditioned space for the mechanical equipment located in the attic, resulting in few losses from the furnace and ductwork. The high efficiency mechanical systems include a hybrid air-source heat pump, a 90%+ efficient instantaneous water heater, and an energy recovery ventilation system (ERV) that provides a continuous supply of fresh air to the home. The preliminary HERS rating for the home is in the upper 20s, indicating that the home will be 70-80% more efficient than a home built to the 2006 International Energy Conservation Code.

For more information, please contact Lois Arena at larena@swinter.com.

The Passive House (PH) standard was first developed by the Passive House Institute in Darmstadt, Germany. PH is not a brand name, but a tried and true construction concept that can be applied by anyone, anywhere. PH promotes space heating and cooling energy savings of up to 90% compared with typical building stock and over 75% compared to average new buildings, while also placing a strong emphasis on comfort and exceptional indoor air quality. Superior windows, a highly insulated building envelope, and balanced mechanical ventilation systems that utilize heat recovery, work together to achieve the desired efficiency and comfort levels.

In 2010, NY Passive House (NYPH), a non-profit organization, was formed to promote a healthy, comfortable, and energy-efficient built environment through the promotion of the Passive House building standard. To this end, NYPH will be holding its third annual PH Symposium in NYC on June 17th with a focus on the big buildings we use and occupy every day in an urban setting. No longer the exclusive bastion of single home "first adopter" pioneers, PH is now focusing on apartment buildings, schools, shops, and office buildings.



NYC Multifamily High-Rise
Arbor House

The NY14 Passive House Conference & Expo is an exploration of these bigger, universal building types, with presentations showcasing examples by leading practitioners from around the world. It is also an Expo of leading component and service providers who cater specifically to the Passive House market.

Both the conference and expo are focused on delivering information to professionals. So if you design, build or own big buildings, this event will provide the practical context to go Passive. AIA and HSW credits will be available. Come hear SWA's own certified PH consultant, Lois Arena, PE, discuss her experiences with implementing the rigorous PH standard in highrise multi-family buildings.

For more information on the NY14 PH Conference or opportunities to exhibit at the Expo, visit http://rightevents.net/NY14PH_Conference_Expo/.

Lois B. Arena, PE, CPHD is a certified passive house consultant and NYPH board member. For more information, please contact Lois at larena@swinter.com.

In an effort to provide the most informative seminar and training sessions possible, we ask that you complete this short survey to let us know what you are interested in learning about in the upcoming year.

[Training & Seminars Survey](#)

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TRAINING & SEMINARS SURVEY



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