

WINTERGREEN

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A monthly update on Steven Winter Associates, Inc.'s work in the realm of Energy Efficient, Sustainable, and High-Performance Buildings

Eleven LEED Certifications for the Price of One!



Woodside Cottages



Beech Cottage



Birdseye view of the site

Guests can now vacation and dine at the newly constructed Woodside Cottages and Harvest Restaurant at **The Hotel Hershey Resort** in Hershey, Pennsylvania. SWA is providing sustainable consulting services for the project's ten luxury cottages and restaurant, which are currently pursuing a single certification under LEED-NC for Multiple-Buildings.



Harvest Restaurant

Developed with college and corporate campuses in mind, the LEED for Multiple Buildings approach allows projects within a campus setting to earn a single certification for numerous buildings at once. With four 6-bedroom and six 4-bedroom prefabricated cottages and a restaurant clustered together at one site on the Hershey Resort's property, this LEED-NC certification method was an ideal way for the owner to save money and reduce documentation.

An unused golf course provided the site for Hershey's expansion, which limited disturbance through careful design considerations and storm water management practices that include permeable paving, rain gardens, infiltration basins and vegetated swales. Landscaping for the project's 434,000 sf site was designed to include only native and adaptive species to eliminate the need for permanent irrigation. The innovative landscape design also included transplanting 80 mature trees originally slated for disposal to new locations throughout the site and the introduction of organic landscape maintenance practices.

Architecture firm **Hart Howerton** combined sustainable elements with historical design to visually connect the new amenities to the existing Hotel Hershey, currently celebrating its 75th anniversary. Regional materials and materials with recycled content were incorporated into each of the eleven buildings, helping to further reduce the project's environmental impact. Low-emitting materials were selected to improve the indoor air quality for resort guests and employees. Overall energy use was reduced compared to the baseline design for this set of buildings, cutting annual energy costs by over 33%. Geothermal heat pump systems were major contributors to the high energy savings. Other sustainable design factors include increased ventilation, convenient thermal comfort controls and enhanced refrigerant management.

Visitors will enjoy beautiful views from the cottages, locally-grown food from Harvest, on-site bicycle rental, large amounts of open space for recreation, and easy access to Hershey's various other attractions including spa services, and Hersheypark Amusement Park.

For more information, please contact Carly Jankens at cjankens@swinter.com.

LEED CS in NYC: Going Gold is Easy as 1,2,3

LEED EB and Energy Star Benchmarking



On November 5th, SWA's very own PE Rich Tesoriero spoke to more than 70 local professionals about the importance and ease of ENERGY STAR™ benchmarking for commercial buildings. The event took place at a LEED EB certified building within the Merritt 7 complex located in Norwalk, CT. The event was a coordination between the newly formed **Fairchester Green Building Council** (where several SWA employees serve on the board of advisors) and the **Southern CT Building Owners and Managers Association (BOMA)**. The presentation was very well received and will hopefully inspire building owners in the area to pursue Energy Star certification for their own buildings. For more info, contact: Rich Tesoriero, rtesoriero@swinter.com

For more information
visit the SWA Website:
swinter.com

Conversions of existing buildings to core-and-shell office space in New York have many inherent environmental benefits. With good attention to the building enclosure upgrade and mechanical systems, LEED CS Gold is easily achievable with little to no extra construction cost.

LEED recognizes the environmental advantages of dense urban living and working. Projects typically earn 15 credits just for being in NYC! Credit is earned for site selection (1 pt.), density (5 pts.), use of light colored paving (1 pt.), proximity to public transportation (6 pts.), and lack of parking (2 pts.). The three points that are difficult for NYC projects to earn are for low-emitting and fuel-efficient vehicles. (That's because, most New Yorkers don't use any vehicles!) But we can typically earn two bonus points for mass transit and development density.

With a green roof, bike storage racks and showers, projects can earn almost all 28 points in the Sustainable Sites category. If the green roof has no irrigation four more points can be earned. A water reduction of 30% (earning 2 pts.) is achievable with the use of automated faucets and ultra-high-efficiency toilets and urinals, which are becoming more and more common even in conventional buildings.

Most conversions to core-and-shell require upgrades to the building enclosure and mechanical systems. This is also the area where the project can make the most significant impact on lessening global warming and earn many credits for the effort. LEED CS requires renovation projects to be designed for a minimum 5% improvement over the ASHRAE 90.1 energy standard. Optimizing energy performance beyond this threshold can earn up to 21 points. At least a third of these points are achievable with good attention to the building enclosure, mechanical systems, and lighting. With new chillers or air conditioners, two points for enhanced refrigerant management are also readily earned.

The environmental advantages of reusing existing building stock are also recognized and rewarded by LEED. Five points are earned for reusing over 75% of the existing building. Two points are earned for construction waste management practices that exceed 75% diversion from landfills. With tipping fees so high in the region, most haulers sort recyclables out of construction waste. With proper documentation, these points are easily earned. Concrete, steel, gypsum board, mineral wool insulations, as well as many finish products can contain high amounts of recycled content. Two points can be earned for specifying such materials. Concrete and synthetic (ie: recycled) gypsum are also readily regionally available—another 2 points possible.

The prerequisites for indoor environmental quality (IEQ) are mostly met by the NYC building code (proper ventilation) and law (no smoking). Many projects have earned eight credits (12 are possible) by implementing a construction indoor air quality management plan; using low-emitting adhesives, sealants, paints, and coatings; installing only low-emitting carpet and flooring systems; using urea-formaldehyde free substrates; and implementing other measures that improve the air quality of the building. Good air quality keeps workers happy, healthy and ultimately more productive. The tally of points will vary greatly from one project to another. However, as explained above, core and shell conversions in NYC have many inherent sustainable aspects and can easily earn the 60 points necessary for LEED CS Gold certification mostly by doing what's already being done.

For more information, please contact Chris Diamond at cdiamond@swinter.com.

WinterGREEN is published monthly by Steven Winter Associates, Inc., 50 Washington Street, Norwalk, CT 06854. SWA is solely responsible for content and cost of publication. For further information contact Helki Roundtree at SWA, phone 203-857-0200 ext. 292, fax 203-852-0741, e-mail: hroundtree@swinter.com. Visit