



# First Green Residential Building in NYC Awarded LEED Gold

## The Solaire

### Manhattan, NY

Developer/Owner:	Albanese Development
Building Type:	Residential High-Rise
Project Type:	LEED-NC
Building Size:	360,000 sq ft
Construction Cost:	\$114,500,000
Architect:	Cesar Pelli Architects
Status:	Completed 2003
SWA Contact:	Andrew Zumwalt-Hathaway

This landmark high rise residential building complies with the Battery Park City environmental guidelines, qualifies for the New York State Green Building Tax Credit, and received a LEED Gold rating in 2004. The regulated energy use in BTU is estimated to be 35% below the 1991 New York State Code requirements, with a 45% reduction in energy cost and electric demand. It is estimated to save close to 25% in energy cost over the ASHRAE Standard 90.1 - 1999. (Per LEED & Green Building Tax Credit regulations, these percentages exclude plug loads, kitchen appliances and tenant-installed lighting).

The more important green features of the design include the following:

- spectrally-selective glass, with high visible transmittance and low solar heat gain
- highly insulated and airtight building envelope
- double-effect chiller-heaters with oxygen trim
- condensing boiler for DHW
- variable speed drives on all pumps and cooling tower fans, plus premium efficiency motors
- photovoltaic panels are rated at 5% of the peak electric demand of for the shell & core
- outside air system for all apartments, with high efficiency filters
- additional high-efficiency filters at the fan-coils inside the apartments
- "black water" system that purifies all waste water and re-uses it for toilet flushing,
- a vegetated roof
- construction materials with recycled content and low emissions
- good IAQ and waste reclamation during construction



***A landmark for green residential construction in New York's Battery Park City***

Steven Winter Associates, Inc. (SWA) performed numerous energy and environmental analyses in support of the design and development team (Cesar Pelli Architects, SLCE Architects, Cosentini Associates MEP, and Albanese Development). SWA tasks included design reviews, building systems commissioning, and quality control to meet "green" requirements of BPCA, GBTC, LEED, and NYSERDA. SWA's consulting work was cofunded by the New York Energy Research & Development Authority (NYSERDA) and Albanese Development Corporation.

**Steven Winter Associates, Inc.**

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