



Project name: Atlantic City Convention Center

Project location: Atlantic City, N.J.

Project duration: August 2008-November 2008

Roof system type: White TPO

Roofing contractor: Thomas Co. Inc., Atlantic City, N.J.

Roofing materials manufacturers: GAF Materials Corp., Wayne, N.J.,
and OMG Roofing Products, Agawam, Mass.

Helping make history

Thomas Co. installs a roof system on the Atlantic City Convention Center

by Ashley St. John



The Atlantic City Convention Center, Atlantic City, N.J., hosts various events, including large public shows, conventions and trade shows, and meetings and conferences. The center contains five exhibit halls, 45 meeting rooms, a 90-foot-tall sky-lit atrium lobby, pre-function space, indoor parking and more, totaling about 500,000 contiguous square feet.

Built in 1997 for \$268 million, the building is the largest and most expensive public project in Atlantic City's history and one of the East Coast's largest convention centers.

The convention center cites "going green" as one of its main operating objectives; as part of this objective, the Atlantic City Convention & Visitors Authority announced in June 2008 a 20-year power purchase agreement between the convention

center and Pepco Energy Services, Arlington, Va., a subsidiary of Pepco Holdings Inc., Washington, D.C. Under the contract's terms, Pepco Energy Services would build, own, operate and maintain a 2.37-megawatt solar array on the convention center's roof.

However, before the photovoltaic (PV) system was installed, the convention center's owners wanted the building's 12-year-old smooth-surfaced polymer-modified bitumen roof system cleaned and re-covered with a white single-ply roof system to provide an appropriate substrate. Thomas Co. Inc., Atlantic City, learned about the project through a manufacturer, submitted a bid and was awarded the contract.

"Because the roof was going to house the solar array, the owners wanted a white reflective roof membrane to help minimize rooftop temperatures for better solar panel performance," says Jim Hagel, Thomas Co.'s project manager and estimator.



For more information about the companies highlighted, log on to www.professionalroofing.net.



Photos courtesy of Thomas Co. Inc., Atlantic City, N.J.

Clockwise from top left: the Atlantic City Convention Center's existing built-up roof system; Thomas Co. installed a GAF Materials white EverGuard TPO membrane; crew members install SECUROCK Roof Board with OlyBond500 adhesive; rack-mounted monocrystalline PV panels on the convention center's roof; the facility's new white TPO roof system before solar array installation

Performing work

A 25-person Thomas Co. crew began work on the Atlantic City Convention Center's 480,000-square-foot roof system in August 2008. Before performing any work, Thomas Co. installed perimeter safety lines on the roof.

"The existing roof system consisted of a structural deck, lightweight concrete and a three-ply built-up roof with a granular cap sheet," Hagel says.

Thomas Co. cleaned the existing roof surface with power sweepers to remove the loose granules. The company then adhered USG Corp.'s 3/8-inch-thick SECUROCK® Roof Board directly to the existing roof surface using 250 sets of OMG Roofing Products' OlyBond500 two-component insulation adhesive. The adhesive was applied with three PaceCart2 applicators, and Thomas Co. installed OMG Roofing Products' Drill-Tec Impact Locking Nails to improve wind-uplift resistance along the roof's perimeter.

After the SECUROCK was installed, Thomas Co. crew members installed a GAF Materials Corp. self-adhering white 60-mil-thick EverGuard® TPO roof membrane.

The convention center remained functional while Thomas Co. performed the roofing work, causing some limitations.

"The convention center still held conventions during the project, which at times required us to work only in certain areas depending on the part of the exhibit floor being used," Hagel says.

Additionally, materials could only be loaded from one end of the building.

"We used a four-wheel all-terrain truck to transport the SECUROCK from one end of the roof to the other," Hagel says.

However, Thomas Co. completed the project on time in November 2008.

"The most rewarding part of the project was that we completed the roof on schedule and had no problems with leaks, etc.," Hagel says.

A special installation

Following the new roof system installation, Pepco Energy Services installed 13,486 rack-mounted monocrystalline PV panels on almost 85 percent of the facility's roof surface; the convention center features one of the largest single roof-mounted solar array systems in the U.S. The panels were installed between June 2008 and December 2008.

The solar power system is expected to produce up to 26 percent of the convention center's annual electricity requirements and reduce the facility's carbon dioxide production by more than 2,300 tons per year.

"We are pleased to have been involved with this historic project," Hagel says. "You don't get the opportunity to install roof systems of this magnitude often, so when one comes along, it always is special." ❄️ 🌞 🌿

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