



## Queen's Landing

### Repair Fit For a Queen

Queen's Landing, a condominium community on Kent Island, was in need of significant repair. According to Rob Aird, president of Robert A. Aird, Inc., a building enclosure contractor company, this is a unique job on several levels. The setting is gorgeous with a six plus mile view of the Chester River. Queen's Landing was built by five different contractors, over a 15 year span – from 10 to 25 years ago.

Another unique aspect of the community is that the buildings are all different. Some of the buildings are EIFS (Exterior Insulation and Finish Systems), with no secondary water/air management, and some are a hybrid stucco system.

Sto Products: - StoTherm® NExT  
- StoGuard®  
- StoPowerwall®

Applicator: Aird Inc.  
Engineer: Engineering and Technical Consultants (ETC)  
Contact information: [www.stocorp.com](http://www.stocorp.com)





It would have been tempting to take a broad brush approach to the repairs since, at first glance, the buildings appear similar. However, upon closer inspection each building was different and each building was its own little project, according to Chris Carlson, Chief Structural Engineer with Engineering and Technical Consultants (ETC). "There are different details from building to building," said Carlson. "All nuances became clearer when we were stripping the buildings."

Before any work began, the team built a mockup on site that showed what was going to be done and to see what it would look like when completed. The mockup is freestanding and includes framing and sheathing, StoGuard® (air/moisture barrier) and Sto EIFS, head and sill pan flashings, step flashings, base of wall detailing, caulk, and all the components anticipated for use on the buildings.

"Some of the areas we have cut into are in good shape and others are in deplorable shape, with rotten framing and sheathing," said Aird. "Thankfully, the industry has matured and benefitted by now having options for substrate protection, air barriers and drainable systems."

Carlson and the team at ETC, including two staff engineers that performed all of the field inspections, were brought in to design all of the repair work, specify the products, and have been retained to do the construction administration and oversight. Some of the challenges of this project have been the wood framed buildings where the wood is deteriorating, according to Carlson.

Aird has also found the effects of not having proper maintenance and repair of the building exteriors – EIFS, roofing, caulk, gutters and downspouts, landscaping, etc., are abundantly demonstrated. There were water intrusion problems that really played into the decay of the buildings.

Aird called in Sto Corp. to find the right claddings. For this Sto reStore project, they used the system StoTherm® NExT to replace the current EIFS. This includes StoGuard®, a fluid-applied waterproofing air barrier. This water resistive air barrier inhibits any water intrusion into the building while the notched adhesive on the backside of the EPS permits drainage of any incidental moisture that might get behind the expanded polystyrene beadboard. These proven components create a high-performing energy efficient wall cladding system. To replace the stucco, the team used StoPowerwall® NExT, Sto's stucco system that also combines a fluid-applied air barrier. On the stucco buildings, because of funds, they are doing mostly removal and replacement of areas damaged or deteriorated, instead of a complete tear-off and replacement of the exterior cladding. For the buildings that had EIFS, nearly all was removed and replaced.

"We're very pleased with the waterproofing system, and have been very happy with the support from Sto Corp.," said Carlson.

In addition to the new cladding, many windows were scheduled for replacement. As many as 1,200 windows are being replaced in the units, also helping to make the building more energy efficient. Other improvements include repairing areas on the shingle roofs, downspouts and gutters, and repairing roof flashings.





The condominium association, especially the board of directors, and an ad hoc construction manager and building captains, has been very supportive and forthcoming, according to Aird and Carlson. The board of directors for the association has been active throughout the program. Bill Moseley, a resident in Queen's Landing, stepped up and has helped manage the job with the unit owners. He recruited building captains to act as liaisons between the building specialists and the unit owners. The building captains keep the keys to all of the units in their building and are available to let the workers in if the residents are not there, move furniture off their patios, and other assistance, bringing peace of mind and bringing the community together to support this project.

"The buildings in Phase 1, now completed, just seem to radiate - they are so bright and clean looking, one would think they were just newly built," said Donna Landis, an owner and member of the Board of Directors.

Moseley and Landis' building has been completed with the StoTherm® NExT, and all of the windows were replaced. According to Moseley, they've noticed a tremendous difference in sound transmission from the outside to the inside. Landis has reported a decrease of more than \$100 for her energy bill during the hottest month on record (July 2012), from \$150 to \$39.00!

Note: The restored buildings weathered Hurricane Sandy without a leak, when these buildings had historically been leaking on and off for many years, even when smaller storms passed by the community, which is located in the middle of the Chesapeake Bay.