

DESIGN

DEVELOP

CONSTRUCT

JOURNAL

NORTH AMERICA'S RESOURCE FOR BUILDING AND REAL ESTATE PROFESSIONALS



# Vesta Properties

The home builder that's taking it up a notch



**Public Housing**  
Federal dollars boost  
construction  
P59

**Bob Sharpe  
Associates**  
Master-planned community  
defies downturn  
P144

# Green Renaissance

School division takes holistic approach to sustainability



Renaissance Academy  
©RMM Architects



**Virginia Beach City Public Schools**  
Tim Cole | Sustainable Schools Project Manager  
Location: Virginia Beach, Virginia

The Renaissance Academy in Virginia Beach, Virginia, is visibly sustainable. From the rainwater catchments to the photovoltaics, visitors will immediately note how green it is. If that doesn't do it, though, there's signage throughout the facility, educating the public about an array of sustainability endeavors.

Education is the end goal not just for the Renaissance Academy but for all of Virginia Beach City Public Schools (VBCPS), the largest school division in southeastern Virginia. Serving nearly 70,000 students in K-12, the school system includes 56 elementary schools, 14 middle schools, 11 high schools and multiple specialty centers that include the Renaissance Academy.

"From an environmental perspective, we have a fairly holistic approach to how we are addressing environmental sustainability as a school division. That's the important thing for us," says Tim Cole, Sustainable Schools Project Manager for VBCPS. "Buildings are just a component of that. The main thing really is to educate the students and the larger public in the community."

Overall, VBCPS envisions all students achieving their full potential in engaging, inspiring and challenging learning environments—and every new facility VBCPS builds brings it closer to that goal. For the 2008-2009 school year, 63 of the division's schools earned awards of excellence from the Virginia Board of Education and Governor Tim Kaine.



“The first goal is to build sustainable buildings. We have about eight of them that are in design, construction or completion phases, all designed around LEED criteria.”

#### SUSTAINABLE GOALS

VBCPS's holistic approach to sustainability is comprised of three primary goals. The first goal ties right in with the Renaissance Academy.

“The first goal is to build sustainable buildings,” explains Cole. “We have about eight of them that are in design, construction or completion phases, all designed around LEED criteria.”

The second goal is to incorporate sustainable practices throughout the school division in a variety of ways. To accomplish this, VBCPS has a sustainable schools committee comprised of representatives from each department within the division. Together, the committee brainstorms ideas on how things could be done more sustainably.

One example of an idea that sprung from the sustainable schools committee is exclusively using Green Seal-certified cleaning products across the board. Along with that, the night cleaning schedule has been adjusted to ensure that custodians only have to turn on lights in certain areas at a time, saving a considerable amount of energy each year.

The third goal is to go beyond the students and educate the public. “We have designated a sustainable school liaison at each school who acts as a conduit between the committee and the school, so we can pass ideas back and forth about what can be done at the school level,” says Cole.

The programs individual schools enact to engage the public have included everything from cell phone recycling to educational components of the VBCPS website and quarterly newsletter. The signage at the Renaissance Academy also draws the community in.

VBCPS's first foray into sustainability came eight years ago with the Hermitage Elementary School, the first LEED-certified elementary school in Virginia. The Renaissance Academy will propagate the division's commitment.

#### A SILVER ACADEMY

Obtaining LEED Silver certification means the Renaissance Academy meets the school division's new requirements to obtain LEED Silver as a minimum on all of its new facilities. However, the academy is unique in a number of ways beyond sustainability.

“We have a unique student population at this school,” says Cole. “These are students who don't fit into traditional learning paths, whether it's for behavioral or academic reasons.”

An alternative education center, the 289,000-square-foot Renaissance Academy serves students in grades 6 and up with programs that range from the Center for Effective Learning to the Adult Learning Center—all with end goals of educating life-long learners. The two-story building will hold up to 1,600 students along with a museum exhibit for the historic Princess Anne County Training School/Union Kempsville High School, the first African-American high school in Virginia Beach.

“For me, the educational component is the highlight,” says Cole. “When you go in through the main entrance of the building, there is a kiosk to your left. The kiosk has all the systems on there—the solar-powered hot water heater, the geothermal, the photovoltaics—and it updates the information for them every 30 minutes so you can see how much water is in the cistern or how much energy is being saved. People can look at that and see how sustainability relates to real-time savings.”

The kiosk is also surrounded by signs including displays of the site and building plans to show where all the features are located. Even the cafeteria exhibits sustainability with a clear pipe that runs through the center of it. That way, when it rains, students can see the rainwater

coming through the pipe and heading into the cistern.


Other green components include waterless urinals, a green roof and daylighting. Even the exterior envelope with its brick veneer and metal wall panels add to the sustainability. “Metal Crafters did a lot of the siding there,” says Cole. “We have a composite metal and brick exterior on the building.”

The biggest challenge on the project was overcome early on. While the old building at the site of the Renaissance Academy was being torn down, VBCPS had to install 522 400-foot-deep wells around the site.

All in all, the Renaissance Academy came together fluidly, opening this past January for students. Beyond the academy, VBCPS is looking at completing two LEED Platinum-certified facilities—an elementary school and a bus maintenance facility—that are currently under construction. Those will be the first LEED Platinum facilities in the school division.

If the success of the Renaissance Academy is any indication, the VBCPS will continue to create successful sustainable facilities.

“The students at the Renaissance Academy used to be in leftover spaces around the city, buildings that often didn't have any windows. It was time for them to get a new building,” says Cole. “Now, when you look at some of the behavior in the old spaces, and then you see the behavior in the new spaces, there's a big difference.”



**METAL CRAFTERS, INC.**  
SALES & SERVICE

**ARCHITECTURAL AND INDUSTRIAL  
METAL SIDING & ROOFING SYSTEMS**

ACM (Aluminum Composite Material)  
Copper  
Stainless  
Aluminum  
Pre-Engineered Metal Buildings

**Custom Fabrication from Your Specifications**

528 Lincoln Street | Portsmouth, Virginia 23704  
(P) 757.399.3999 (F) 757.399.3911