# MOMENTUM



# **Mueller**

**Winter 2012** 

# LAUNCHING CAREERS

## IN BUSINESS AND LAW

New and Expanded Buildings Support Enhanced Programs



Radford University College of Business and Economics Rendering by Ayers Saint Gross/ Glavé & Holmes

Salisbury University
Perdue School of Business
Photos by Alain Jaramillo





hroughout the Mid-Atlantic, many academic programs in business and law are benefiting from new and enhanced facilities with "realworld" environments offering hands-on training and experience. Mueller Associates has completed MEP design for several high-profile projects recently, with locations ranging from Radford University's valley setting in southwestern Virginia to Rutgers University's dynamic urban campus in Camden, New Jersey.

# The Latest in Educational Technology

Now under construction, the new College of Business and Economics building at Radford University will feature smart classrooms, laboratories and research space, student meeting and case study areas, and a hightech area that simulates a Wall Street trading room. The 115,000-square-foot building was designed using Revit® MEP and meets LEED®-Silver certification standards. Sustainable highlights include energy demand limiting strategies, exhaust air energy recovery, demand-based ventilation, ice storage and a digital addressable lighting system.

"Radford is one of those clients who 'gets it' when it comes to sustainability—particularly energy efficiency," says John Gass, RA, LEED AP, project manager with Glavé & Holmes, which teamed with Ayers Saint Gross on the design of the building. "Mueller showed Radford's operations staff how a heat-recovery chiller could provide several benefits that they had never considered previously. Radford also uses ice storage in a campus-wide strategy to offset its

collective energy demand, not just the building the tanks happen to sit within."

## Reshaping the Campus

In Maryland, students at Salisbury University recently began attending classes in the new Perdue School of Business, a signature campus building designed by the team of Richter Cornbrooks Gribble (RCG) and Perkins+Will. The 113,000-squarefoot building offers a 200-seat auditorium, specialized labs, team study rooms, a student services center, and an array of classrooms including a virtual learning center.

The facility is designed to LEED-Gold standards and features advanced technology throughout. "The use of Revit 3D modeling continued on next page

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Mueller's current projects also include the new Business School and **Management Complex** at Morgan State **University in Baltimore, with Ayers** Saint Gross, Kohn Pedersen Fox, and **KPN Architects.** 

greatly enhanced the design process for the Perdue School and reduced coordination issues and RFI's from the contractors," says Jonathan Fishman, AIA, a principal with RCG.

"This is the third building that we've designed for Salisbury University," says Mueller Vice President Todd Garing, PE, LEED AP BD+C, who led the engineering for both the Perdue School of Business and Radford's College of Business and Economics. "Together with the Henson School of Science and Technology building and the Teacher Education and Technology Complex, we've been able to help Salisbury reshape the campus. Administrators have a cohesive plan for development that includes state-of-the-art facilities."



The University of Baltimore's striking new John and Frances Angelos Law Center, scheduled to open in late 2012, is also designed to LEED-Gold standards, with measures such as roof-mounted solar sensors and a radiant floor heating and cooling system.

The center was designed by the acclaimed team of Stuttgartbased Behnisch Architekten and Avers Saint Gross, which won an international competition with a unique concept of three interlocking building forms for classrooms, offices, and the law library.

The 13-story tower contains 190,000 square feet of diverse learning space, with a large atrium that winds through the building and up to a rooftop skylight. A 300-seat moot court is located on the lower garden level. "The hydronic tubing is integrated into the concrete floor to circulate hot and cold water throughout the building," says Mueller Vice President John Morris, PE, LEED AP BD+C.

"That was a challenging aspect, as well as the amount of exposed structure in the design. We had to create a clean look, without a lot of exposed piping." The project design also includes a focus on rainwater harvesting, dedicated outdoor air with heat recovery wheels, automated operable windows, and shades with automated solar tracking controls.

According to Mike Barber, AIA, associate principal with Ayers Saint Gross, the law center "demonstrates the advantages of using BIM on a complex project. In a building where much of the space doesn't have finished ceilings, we needed to work closely with Mueller to visualize and manage the aesthetics of the building systems."

"The design exemplifies an integrated approach to the environmental systems and the architecture of the building," adds Stefan Behnisch, partner with Behnisch Architekten. "Architectural surfaces such as the facade and the concrete floor slabs are activated to deliver things like fresh air through automatically operated windows, articulated external sun-shading, and cooling and heating via in-slab radiant tubing-giving the building a direct expression of systems performance and aesthetic expression."

## A Careful Fit

Mueller also worked with Ayers Saint Gross on the renovation and expansion of Rutgers University's School of Law, a project that involved construction of a new four-story structure with a multi-floor connecting passageway to the existing law building. Mueller provided complete MEP engineering and building and site lighting design. Spaces include a moot court, lecture halls, classrooms, a two-story lounge, and a video conferencing facility.

"This was a tight urban site requiring concealed equipment within the building footprint," says Yancy Unger, PE, LC, LEED AP BD+C, who oversaw Mueller's team. "We located the equipment below grade and on the roof rather than on grade. We also closely coordinated our design to tie in with existing building systems, and allow for phased construction while the current law school remained open."

"The project required a thorough assessment of the systems, and an engineering approach that allowed us to seamlessly integrate the two buildings," adds Mike Barber, who also managed this project for Ayers Saint Gross. "Mueller really rose to the challenge."



University of Baltimore John and Frances Angelos Law Center Rendering by Behnisch Architekten

Rutgers University School of Law Photo © Alan Karchmer

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