

Mueller Associates: Engineering Great Experiences



Mueller Associates is a Baltimore-based firm that has provided mechanical, electrical, and plumbing engineering (MEP) services for more than 50 years, serving the Mid-Atlantic region and beyond. Throughout its history, Mueller has focused on the MEP design of complex spaces, including museums and other cultural facilities, higher-education buildings, performing arts centers, laboratories, and historical structures.

“We are somewhat unusual among MEP firms in that we are very focused on a few select markets and project types,” says President Bob Marino, PE, LEED AP. “We’re at our best when we’re helping clients with difficult facility challenges, such as the design of a carefully controlled space for art and artifacts, a laboratory with precise environmental controls, or the modernization of a historic building with state-of-the-art systems.”

Bringing Buildings Back to Life

Marino, who joined Mueller in 1985, got his start with the firm working on the renovation of the circa-1900 Masonic Temple in Washington, D.C., then being transformed into the National Museum of Women in the Arts. He enjoyed being part of a team that not only brought the abandoned, turn-of-the-century building back to life, but created a sophisticated, climate-controlled environment for the Museum’s collection.

“That project really ignited my passion for this business,” Marino says. At the time, Mueller already had a deep portfolio in the design of cultural facilities, with successful projects completed in the 1970s and 1980s for the Lyric Opera House, the Baltimore Museum of Art, the Smithsonian

Institution, and the Washington National Cathedral. “Over the past half-century, we’ve continued to build upon our expertise and experience in the design of museums, visitor centers, galleries, libraries, conservation labs, archival storage, performing arts centers, and other technically complex spaces,” Marino adds. “The projects have been fascinating, and we’ve developed some very rewarding, long-term client relationships.”

Serving the Smithsonian

Among the clients that Mueller has served for decades is the Smithsonian Institution. Since 1978, Mueller has completed more than 100 projects for the Smithsonian, with current work that includes modernization of the National Air and Space Museum (NASM), and renovation of the historic Bird House at the National Zoological Park, both with Quinn Evans Architects. Past work for the Smithsonian has included projects at the National Postal Museum, the Freer Gallery of Art, the Hirshhorn Museum, the National Museum of Natural History, the National Museum of American History, the Sackler Gallery, the Renwick Gallery, the Castle Building, and many others. The firm recently completed the design of storage space at the NASM’s Udvar-Hazy Center, working with Ayers Saint Gross.

“The Smithsonian has turned to us for projects large and small, and they are always interesting challenges,” says Todd Garing, PE, LEED AP BD+C, a Vice-President with Mueller. “The modernization of the National Air and Space Museum has been the most ambitious, as we upgrade all of the systems within the popular, Mid-Century Modern icon. It’s exciting, because our work today is so much more

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National Museum of Women in the Arts.



Smithsonian Institution National Air and Space Museum.

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informed with state-of-the-art modeling that enables us to gauge the most effective environmental controls. The mechanical engineering for this project has carefully factored in aspects such as natural daylight at various times of day throughout the year.”

Protecting Valuable Collections

Modernizing museums that are housed in historical structures is among the most demanding of MEP projects. In addition to the National Air and Space Museum, Mueller’s portfolio in this specialty area includes decades of engineering support to the Baltimore Museum of Art, including modernization designs for the circa-1920s John Russell Pope Building. Similarly, the firm has supported the Walters Art Museum in Baltimore for 25 years, with projects that have included a multi-phase renovation of the circa-1908 Palazzo Building on Charles Street, as well as the museum’s companion building constructed in 1974. Recent projects have also included renovations within the circa-1850 One West Mount Vernon Place Building to accommodate semi-permanent exhibition space.

In Delaware, Mueller has undertaken numerous projects to modernize the Winterthur Museum, set on the grounds of the historic Winterthur Estate. Work has included system improvements within the circa-1830s estate house, which includes 175 rooms filled with antiques, paintings, and other valuable artifacts and works of art. In Washington, D.C., Mueller designed new systems for the transformation



Smith Library.

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Baltimore Museum of Art.

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Walters Art Museum: One West Mount Vernon Mansion renovation.



Enoch Pratt Free Library.

©BEYER BLINDER BELLE

of the historical Postal Square building, built in 1914, to create the Smithsonian Institution's National Postal Museum.

The firm has also completed many challenging projects for libraries and historical archives. At the Folger Shakespeare Library in Washington, D.C., which opened in 1932, Mueller engineered improvements to the lower-level vault area, where rare Shakespearian folios are kept. The firm also designed climate-control improvements to the main reading room and exhibition hall. In Baltimore, Mueller has recently completed the modernization of systems within the Enoch Pratt Free Library's Central Library, built in the late 1880s. The work was performed in association with Beyer Blinder Belle and Ayers Saint Gross.

The firm's affinity for tackling difficult projects also includes new construction with stringent program requirements. At Mount Vernon, Mueller supported Ayers Saint Gross in the design of the award-winning Smith Library, which houses rare books, documents, and artifacts related to the study of George Washington and the founding fathers. At Monticello, Mueller also worked with Ayers Saint Gross on the design of the LEED Gold Certified Thomas Jefferson Visitor Center

and Smith Education Center, which included the installation of a closed loop geothermal chiller/heater system.

Modern Technology

Mueller Associates has consistently been a leader in the application of advanced technology and strategies to design energy-efficient, sustainable buildings. The firm was among the first to embrace building information modeling, with 100 percent of its professional staff trained in Revit, beginning years ago. Today, the firm has approximately 45 employees, with many holding LEED accreditation and other advanced certification.

"Much of our work is focused on helping clients preserve and celebrate history, but as engineers, we're a forward-thinking firm," says Garing. "We're fortunate to work with architectural firms and building owners who set high standards in terms of project design and delivery. Our clients expect buildings that are not only beautiful, but that perform well in terms of visitor comfort, energy efficiency, and overall life cycle cost. That's our goal, with every project." 🏛️

WHERE SUSTAINABILITY SOARS

As we lift off to another half-century in MEP engineering, Mueller Associates is proud to be working with Quinn Evans Architects on our largest project in history: the phased modernization of the Smithsonian Institution's National Air and Space Museum.

Mueller | **50 YEARS**

Mueller Associates:
Celebrating 50 Years

NASM:
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