



ARCHITECTS, ENGINEERS AND SURVEYORS, LLC

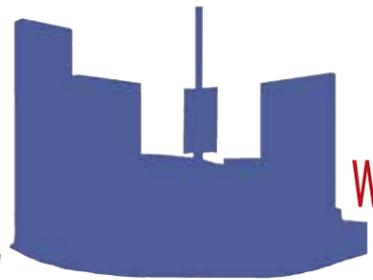
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What is it?

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People are talking Worcester Central School District

In the spring of 2005, we were commissioned to assist the Worcester Central School District through a referendum for reconstruction of their existing facility. In August of 2008, the voters approved a \$32.6 million project and in December, 2011 the work was substantially complete. What transpired was the culmination of an extraordinary effort by the District which resulted in a facility that is not only functional, but inspires and motivates students, staff and administration and provides a place where the community is excited and proud to be a part of. As a result of the design, Keystone Associates Architects, Engineers and Surveyors, LLC, has been recognized by Marvin Windows and Doors in their 2012 Architect's Challenge which has selected the project as one of their ten winners for this year.

<http://www.marvin.com/window-door-ideas/mymarvin-project/architects-challenge>

In addition, the Worcester Central School District project was selected to appear as an Outstanding Design in the 2012 *American School & University Architectural Portfolio* . . . the premier showcase celebrating the best in education design, which was published in November. Visit the website at:

<http://viewer.zmags.com/publication/98b3af6e#98b3af6e/173>

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Do you know? Dave Tanenhaus

When the floodwaters breached the top of Binghamton's flood walls, 9 of the Binghamton Housing Authority (BHA) buildings were impacted on four sites. Nearly 300 tenants could no longer call these buildings their home. Due to the efforts of Binghamton Housing Authority administration, staff and its Executive Director, Dave Tanenhaus, these buildings are their homes. Dave has been the Executive Director for 26 years and is truly concerned about the residents who occupy these buildings. During the rehabilitation efforts, Dave's chief concern was returning the residents to their homes in the quickest time frame. During Dave's tenure, the Housing Authority has continued to make improvements to benefit the tenants. Some of BHA's achievements have been the establishment one of the first Credit Unions at a Housing Authority, a Computer Technology Center, Community Centers at 2 complexes, a Convenient Store and a Homeless Shelter. Dave's concern for the tenants can be seen in the efforts he and his staff take in caring for the grounds and buildings as well as the programs offered to their tenants. His response during the flood of 2011 was one of his finest achievements.

Where can you
find the oldest
suspension
bridge in the
United States?

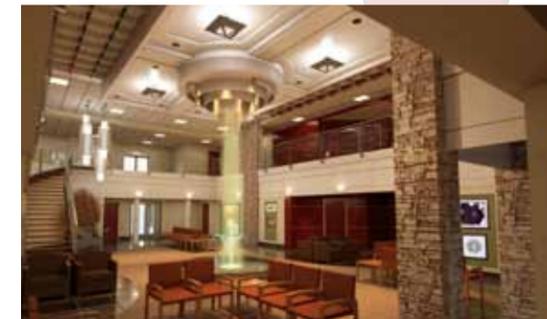
KEY Connections

"Exceeding Your Expectations"

Key notes

In September 2011, in the span of a 40 hour period, 9.02" of water fell to the ground in the Binghamton area. The water reached the highest levels since recording began in 1847. Thankfully our offices were spared any damage, although our neighbors across the street were not. Businesses and homes of some of our clients, employees and friends were also directly impacted by the flood. After this event, our community came together to help friends and family with cleanup. One of our oldest clients, the Binghamton Housing Authority, had 9 of their buildings on two campuses affected by the flood waters as hundreds of individuals and families were displaced. Environmental, structural, mechanical, plumbing and electrical systems were all compromised in numerous buildings. Assessments of all the facilities were performed in order to assist the Housing Authority in their effort to bring residents back home. We also provided assistance and services to numerous other clients, organizations and home owners in the assessment of their properties. As projects and conditions were being assessed and new materials and equipment were being installed, we learned several things that will allow these facilities to better handle future flood events. Placement of systems, types of materials and preparing the building for future events were all analyzed in the re-design process. Closed cell foam insulation, as well as wiring capable of submersion, were just two of the materials utilized in the re-design. These products will allow the owner to respond faster and more cost effectively should future flooding occur. Although over a year in the past, we are still assisting these clients as they work with state and federal agencies to receive funding for the cleanup and rebuilding. We are glad that we were able to help re-build and restore the community we call home.

On the boards New Medical Offices



Proposed Rendering

The local developer JFM Real Estate has retained Keystone Associates for the design of renovations to an existing warehouse and office building into nearly 60,000 sq. ft. of medical offices. Keystone Associates worked closely with Lourdes, the major tenant. Proposed renovations to the facility, located on Shippers Road in Vestal, which includes the addition of a second floor providing needed office space for departments which were displaced in the flood of 2011. The renovations also include a main atrium space as well as associated parking. All services are being provided in-house including architectural, structural, plumbing, HVAC, electrical, survey, environmental testing and civil. The project is scheduled for completion later this year.





It's the 9/11 Memorial

In 2002, the City of Binghamton received a 4-foot, 300-pound section of steel from the remains of the North Tower of the World Trade Center. Binghamton was one of only 55 cities in the U.S. to get a section of steel to create a local 9/11 memorial. The memorial, located between City Hall and the Central Fire Station on State Street, depicts the site and timeline of the attack. The memorial was dedicated ten years following the terrorist attacks. Keystone Associates is honored to have provided design services for this project that pays respect to the thousands of individuals that lost their lives on that tragic day.

The key is green...

I'm Too Hot, I'm Too Cold

Do your building occupants complain about where the temperature should be set? What if you could install a heating and cooling system, increasing individual room control and eliminating a boiler room? If this interests you, then **Variable Refrigerant Volume/Flow (VRV/VRV) may be a solution.**

The variable in VRV/WRV refers to the variable compressor speed which modulates the flow of refrigerant to interior equipment, enabling these systems to accurately match needs of the building. These systems can have an operating range of 6%-100% of the capacity of the connected units, which is beneficial because buildings are only at the design conditions for heating or cooling approximately 30-70% of the year. During those periods, traditional equipment either cycles on and off to match the building



needs or runs continuously – overheating or overcooling the spaces. With VRV, the compressor continuously modulates, cycling is minimized and setpoints are continually met while conservatively using 11%-17% less energy than a conventional system. This is accomplished in conjunction with providing individual room temperature control to the occupants, utilizing non-ozone-depleting refrigerants and achieving an increased Coefficient of Performance when compared to traditional equipment.

Let Keystone Associates demonstrate how a VRV/VRV system can work for you.



Under construction Special Inspections

Keystone Associates has recently completed special inspection services at the new Dick's Sporting Goods Store in Oneonta, New York. The new store consists of 37,000 square feet of retail space and is adjacent to the new Petco and TJ Maxx



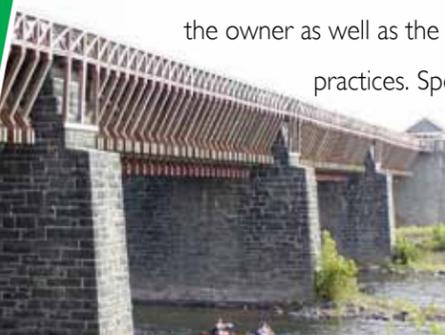
stores on Oneonta's southside. This was a fast track project from the initial ground breaking to completion which occurred within five months. **Special inspections are a requirement of the building code of New York and shall be provided by the owner.** They are necessary to

the owner as well as the local code enforcement officer as they enable a third person review of construction practices. Special inspections ensure that the contractor is following the requirements as set forth

in the construction documents. As the project is finalized Keystone compiles all the pertinent information, field reports and photographic documentation and submits it to the owner, which enables the owner to secure their certificate of occupancy.



The Roebling Bridge is located in Minisink Ford, NY. This bridge was the predecessor to Roebling's Brooklyn Bridge. The bridge runs from Minisink to Lackwaxen, PA., and is open to vehicle and pedestrian traffic.



Did you know?

Green Infrastructure Practices

New York State design standards for stormwater management now include the requirement to use Green Infrastructure (GI) practices. The Department of Environmental Conservation added Chapter 5 "Green Infrastructure Practices" to the *New York State Stormwater Management Design Manual* in 2010. GI practices can improve the water quality of receiving lakes, rivers, and streams by using natural hydrologic features of the site to remove pollutants and promote groundwater recharge.

GI practices include simple planning measures to reduce the footprint of new development, preserve natural features of the site, and minimize new impervious cover.

Other practices can be constructed to achieve similar benefits. Examples of constructed practices include vegetated swales, rain gardens, green roofs, rain cisterns, and porous pavements. Utilizing GI practices can include many other benefits for a project owner including decreasing the size and cost of downstream storm sewers and detention ponds. For more information contact our office today.



Innovation station Buy Some Green, Save Some Green

The word artificial turf commonly conjures up images of the old carpet style grass, friction burns and special turf shoes, but today's artificial turf is more like grass than just the green color. The new systems are based on a longer carpet fiber that is filled with a sand and rubber in-fill mixture that is installed over a pervious sub-base. These systems provide better drainage and eliminate the maintenance costs of mowing, fertilizing, pesticides and watering. **The average artificial turf field saves between 500,000 – 1,000,000 gallons of water per year.** Artificial turf systems are made from recycled tires and other rubber sources reducing the amount of materials headed for landfills. **Safety is another aspect where the new artificial turf systems excel—they have lower G-Max ratings, which translates to fewer injuries for athletes.** Keystone Associates has designed numerous fields using artificial turf for various sports and can assist you in your new sports field.

