Naval Academy Competition Pools

Project Spotlight: February 2013

LOCATION: Annapolis, MD
ARCHITECT: Counsilman-Hunsaker
St. Louis, MO
INSTALLER: Profast Commercial Flooring
Ijamsville, MD
LATICRETE DISTRIBUTOR: Daltile
Frederick, MD
The United States’ military academies each have specific, unique traits distinguishing themselves not only from each other, but from the rest of the country’s higher-education institutions. The United States Naval Academy has been educating and training individuals who primarily patrol the waters, internationally, since 1845 and, currently, is the highest-ranked public liberal arts college in the entire nation. For an institution that trains its students to be capable in water, there obviously is a strong and competitive intercollegiate swimming and diving team. The Academy already boasted pools that were among the top in the states, but with teams which consistently win Patriot League titles and rank in the top 25 nationally, there were needs for facilities that reflected and encouraged continued success in the water. Over the summer of 2012, the USNA had its existing competition pools renovated. In doing so, two of the grandest and beautiful pools in the entire country became an integral part of the school’s venerated “water tradition.”

True competition pools are much different than your average high school or community pool. For example, diving pools must possess specific dimensions in order to be safe and operational. The newly-designed USNA diving pool has a depth of over 14 feet, and the racing pool measures 50 meters in length in order to be fit for competition.

Without question, this grandiose project was no in-and-out pool renovation. “The pools sit 50 meters below sea level,” said Kurt Weber, Sales Representative for LATICRETE International. “With the campus located on the Chesapeake Bay, there were plenty of concerns and challenges in keeping water from running off into the pools’ foundations while construction took place. There were even days when construction had to be shut down during the Hurricane Sandy period for fear that there could be some residual effects.

“The pool was so deep, it was astonishing,” Weber continued. “It’s not very often you look down into a pool and see forty feet of scaffolding rising up towards you!”

The pool renovations had to take place within a pre-existing steel structure so everything had to be exact.

“This was clearly a high-profile job,” said Eric Pucilowski, LATICRETE Regional Sales Manager. “Anytime you are working on a military facility, you are going to be under a microscope and scrutinized the whole time.”

Typically when building a pool, a key concern is keeping the base and shell completely sealed so that water does not leak out. But in this case, the construction team had to worry about water leaking in. While working below sea level is not a new task for highly-skilled construction and installation specialists, it still cannot be taken lightly as any leak or crack can potentially cause major structural and/or cosmetic problems. Profast Commercial Flooring was the company in charge of installing all the tiles on the project, and the professionals from that firm found optimal ways to deal with these water issues.

“We installed over 32,000 sq ft. of 1x1 mosaic tiles as well as 32,000 sq ft of thick mortar bed on the walls and floors of the facility,” said Kevin Killian, President of Profast Commercial Flooring. When you have a project that big, you need to know you’re going to have installation products that work. LATICRETE materials are spectacular... trustworthy and have a great reputation. They worked well not only for our tile installations, but for sealing and water-proofing!”

The installation system Profast used was a traditional one, and they were guided through the process by LATICRETE materials.
representative Kurt Weber. “Kurt did a fantastic job making sure the system was installed correctly and that we knew exactly how the products specified would be working. And, how they would be working together,” stated Killian. “Kurt advised us throughout the entire project. Our company’s expertise and hard work combined with his sage installation input made this a very smooth operation.”

LATICRETE has worked with the architectural firm which provided the renovation design, Counsilman-Hunsaker, many times. The professionals there specified LATICRETE products based upon their knowledge and experience working with these materials. “Counsilman-Hunsaker is one of the leading aquatic design firms in the country,” stated Art Mintie, Technical Service Director at LATICRETE. “They work on demanding and unique aquatic applications that require high-performance installation materials to ensure that finished projects perform to their demanding standards. This project had some unique challenges to work through. LATICRETE, Counsilman-Hunsaker, Profast Commercial Flooring and other parties on the project, together were able to work through the issues and complete the installation correctly.”

LATICRETE provided a fully-compatible installation system backed by a comprehensive labor and materials warranty which ensured confidence in long-term performance for this project.

The system used was specifically designed to meet the needs of this project, as there were a few variables that needed to be taken into account. “Not only were there challenges having the deep pool below sea level, but there was also a hydronic, in-floor heating system installed, so we needed to take that into account,” Weber said. “We used LATICRETE® 3701 FORTIFIED MORTAR BED inside the pool’s shell. HYDRO BAN® was selected to address waterproofing issues, and LATICRETE 254 PLATINUM was called upon to bond the tiles to all substrates. Then, the pools were grouted with LATICRETE PERMACOLOR™. These products all worked together in a way that made the job come together beautifully. This overall system was just a good fit. From the warranty to the ease of use and proven performance, we knew and they knew, that LATICRETE products made the most sense!” concluded Weber.

Because there was a hydronic in-floor heating system, the installers had to be extremely careful with all materials being applied over it, including the tiles. First, a thin configuration of mortar bed was placed over it. Then they applied HYDRO BAN over top of that to perform both as a waterproofing and anti-fracture component. With the tiles installed over top surface, the heating system was able to work to its maximum potential while assuring that the tile installation and overall sealing process both were not compromised.

“Our armed forces pride themselves on getting things done correctly and in a timely fashion,” said Weber.

“I know the officials at USNA expected the same from. Aside from some delays due to the hurricane that hit the east coast, the job went smooth and turned out to be absolutely beautiful. The team at Profast did an excellent job working twelve hour days, six days a week to make this happen, and their high-level workmanship fit very well with our proven installation system.”

With the 2012 swimming and diving season already underway, the pools were completed on time for the Naval Academy Midshipmen to pursue another Patriot League championship. Doing so in a brand new, state-of-the-art facility worthy of many construction gold medals.