

A look into the future



The STEM Building opened for classes at the beginning of the 2016 fall quarter. *Photo: Clark College/Wei Zhuang*

Shortly before Clark College's STEM (Science, Technology, Engineering, and Math) Building opened for classes at the beginning of the 2016 fall quarter, Clark College Construction Project Manager Jim Watkins stood on its north plaza and pointed out a few hidden features to a group of visitors.

Watkins pointed to the lines marking the poured concrete that make up the plaza floor. "The smaller squares around the perimeter are in 1-meter increments, while the large squares are 3-by-4 meter and 4-by-4 meter blocks," he said. "That way, if a physics class is doing experiments where they need to measure the flight of a projectile or something, it's easy for them to gauge how far it's traveled."



Structural elements like heating pipes were deliberately left exposed to serve as teaching tools for engineering students. *Photo: Clark College/Wei Zhuang*

Throughout the building's 70,000 square feet, details abound that reflect and strengthen its purpose. Structural elements—including heating equipment, water pipes, and earthquake-proof concrete—have been left visible deliberately to serve as teaching tools for engineering students. Decorative touches, like the “STEM” laser-carved into the metal stair railings and the ceramic-tile periodic table inlaid into the second-story floor, remind visitors what's studied here. And that column of glass that rises from above the front entry doors to the top of the building's airy lobby? It's actually a 44-foot high, 4-foot square drop tower, where dropped objects can be filmed with a high-speed digital camera in experiments by engineering or physics students.

While the building opened to students on September 19 for fall

classes, an official ribbon-cutting ceremony is scheduled for October 3.

“I am so excited to see students enthusiastically learning in the new STEM Building on the first day of the new academic year,” said Dean of STEM Peter Williams regarding the opening. “The STEM Building is a beautiful, technologically advanced educational facility that perfectly supports academic excellence, one of the core themes of Clark College’s strategic plan. It is ideal for students who may not know how exciting and interesting science can be, and hopefully provides a starting point for a career in a STEM field, one of the fastest growing job fields in the country.”

The new, LEED Silver-certified building—the largest ever built on Clark’s main campus—holds nine classrooms, twelve labs (including some spaces that serve as both), two conference rooms, 16 student areas of various sizes, and 41 offices. It will house much of Clark’s engineering, chemistry, biology, and physics departments. The first new instructional building to be built on the main campus since 1994, it was paid for primarily through Washington State capital funding, supplemented with generous donations to the Clark College Foundation to make up for a budget gap in the project’s \$40 million cost created when the state reduced its contribution due to the economic recession.



Learning extends outside the STEM Building, with multiple

outdoor classroom/study areas set along the south wall. *Photo: Clark College/Hannah Erickson*

The building offers many new opportunities for Clark students. A six-table cadaver lab includes operating-room LED lighting and a high-definition camera that allows even those students who aren't at the dissection table to see anatomy and procedures clearly on two large plasma screens. Clark College is one of only four community colleges in Washington to have a cadaver lab, and this new lab greatly expands the number of students able to take the perpetually waitlisted Anatomy and Physiology classes that are required for a number of health-related degrees.

Additionally, a Collaboratorium sits at the heart of the building's main floor. This high-tech "makerspace" is filled with tools and machinery to allow students—and possibly community members, in the future—to create their own designs. Watkins showed visitors the large double doors facing out to the north plaza. "We designed this so you could bring a truck-size project through here if you wanted to," he said. "We didn't want our engineering students to feel limited as to the projects they could take on."

According to the Washington Student Achievement Council, Washington State has the third-highest concentration of STEM-related jobs in the United States—but up to 40,000 of those jobs may go unfilled by 2017, in large part due to a lack of qualified applicants with the appropriate training.

"I am so impressed and excited by the possibilities this new building brings to the college," said Clark College President Bob Knight. "Clearly, STEM is going to be very important to this region's economy, and we are proud to be able to offer state-of-the-art training and education in this field, continuing a legacy of excellence that stretches more than 80

years.”

Clark Adopts the Gold Standard



Clark’s efforts to conserve water during a statewide drought have led to the grass looking a little more parched than usual.

This summer, visitors to the main campus may have noticed a change in its normally lush landscape. The grass, which usually blankets the campus in emerald green, has been looking a little, well, *thirsty* of late. Dry. Brown. Dead, possibly?

Far from it, assures Clark College Director of Facilities Services Tim Petta. He explains that the college is simply

responding to Washington Governor Jay Inslee's May 15 declaration of a statewide drought.

"Clark College is doing its part to reduce irrigation use to the least amount of water possible during this difficult water resource time," says Petta. "We are trying different shortened watering schedules to use the least amount of water, while still keeping the grass alive."

According to the Washington Department of Ecology, almost 80 percent of the state's rivers and streams are running at below-normal levels—and 38 percent of them at record lows. Meanwhile, mountain snowpacks are down to 16 percent of their normal levels, and the Washington Department of Agriculture is projecting a \$1.2 billion crop loss this year as a result of the drought.

While the college does not rely on a municipal source for irrigation water, it does pull that water from an underground aquifer that is also used to provide municipal water locally. So the college decided to do what it could to slow its drain on a community resource, says Petta.

The irrigation changes should not affect the college's landmark arboretum, which has earned the college Tree Campus USA status from the Arbor Day Foundation for five years in a row. Trees' deep roots can withstand drought better than smaller, more delicate plants.

Nor will the changes prevent the college's beloved Andersen Fountain from flowing again in a few weeks once scheduled repairs have been made to it. The fountain operates on a "closed loop" system that recycles the water, meaning it can continue to surprise guests and delight children without affecting the state's limited water reserves.

Closures in Green Lot One



Work and closures will take place inside the areas marked by yellow lines.

Sections of Green Lot One will be closed off during the month of July as the college works to improve its fiber optic system. On July 15 and 16, the entire northwest portion of the lot will be closed to cars as workers determine the locations of existing underground utilities. Once those locations have been determined, smaller areas of the lot will be closed off as specific sites are worked on. All work should be done, and the entire lot re-opened, by the end of July.

Article and photo contributed by Facilities Services.

Welcome, Tim!

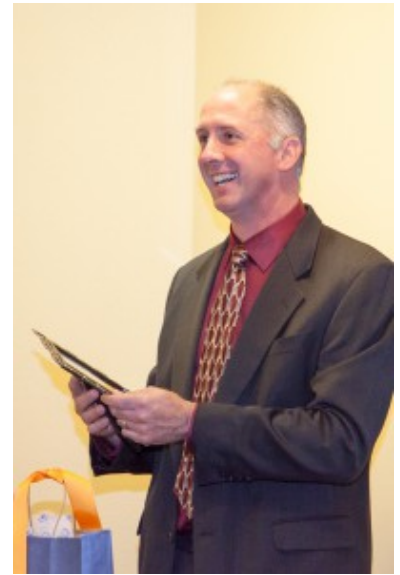


Clark College Foundation President and CEO Lisa Gibert, *center*, gives new Director of Facilities Services Tim Petta, *right*, a warm welcome.

Incoming Director of Facilities Services Tim Petta was welcomed warmly by the Clark College community at a reception in the Baird rotunda on Friday, November 15. Petta joined the college on November 4.

Petta has extensive experience in facilities management at the University of California Los Angeles, where he was Senior Educational Facility Planner. As part of UCLA's facilities management team, he was responsible for supporting 175 on-campus and 100 off-campus buildings. He has been involved in a number of large new construction projects—from design and

document review to building and commissioning.



Director of Facilities Services holds his welcome-to-Clark gift of a framed photo of the Chime Tower.

Petta began his career early, working in construction while in high school and college. He studied computer science at California State University Northridge, but decided to instead go into plumbing. He quickly rose to a management position, and has taken management courses through Dale Carnegie Training, Fred Pryor Seminars, and other companies, as well as college courses in mechanical engineering.

As Director of Facilities Services, Petta oversees all capital projects at the Clark College, ranging from the soon-to-be-built STEM Building to minor repairs and improvements. He is also responsible for the maintenance, grounds, and custodial services provided to the college every day. His department includes more than 50 full- and part-time staff in all facilities trades, from maintenance mechanics to grounds specialists to custodians.

Vice President of Administrative Services Bob Williamson welcomed Petta with a framed photo of the Chime Tower and a bright orange Administrative Services T-shirt.

Photos: Clark College/Jenny Shadley