



Shop Talk

Facilities Management

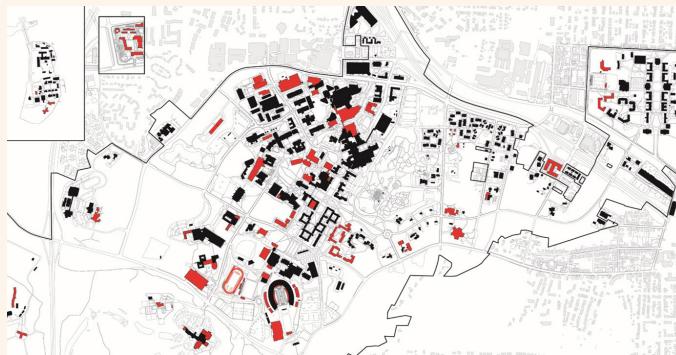
Duke University

Creating Tomorrow's Duke Today

May 2017

Message from the VP

President Brodhead is retiring as President of Duke this summer. During his 13 year tenure, Duke has changed dramatically, and FMD has worked hard to keep the expanding campus maintained. On the map below, the buildings shown in red were built or renovated during the Brodhead Era:



- 70 new buildings were completed
- 6 new buildings are currently in design or construction
- 76 total new buildings & additions
- 6.7 million square feet
- Equivalent to 3x the 1930 campus or 2,250 homes @ 3000 sf/ea
- 50% growth in campus square footage
- 100 acres of newly designed landscapes
- 9 acres of historic woodlands designated as conservation area

I am thankful of the support President Brodhead has given to our department and proud of what we accomplished during his tenure. I look forward to starting this next chapter with President Price.

John J. Noonan
Vice President for Facilities



EMMETT DULLAGHAN HONORED WITH PRESIDENTIAL AWARD



Emmett Dullaghan, High Voltage Electrician, was honored with the Presidential Award at a ceremony at the JB Duke hotel on April 20, 2017. He was presented with a Presidential Medallion. The award is one of Duke's highest honors, given to staff and faculty for "outstanding job performance and distinctive contributions in 2016". Emmett, who has worked for Facilities Management for almost 31 years, rebuilt the complicated high voltage system for the athletic precinct, and he did so with no power interruption.

Electricity enters Duke's campus through a ring of five distribution substations, which are supplied with power from Duke Energy. The High Voltage team is responsible for the installation, operation, maintenance and distribution of high voltage electric power on campus. They support the University, Hospital and Medical Center by maintaining the integrity of the electric system on campus, which in addition to the substations, includes over 15 miles of duct banks and 62 miles of electrical cables.

This means that when construction work requires an upgrade or expansion of the system, it is the High Voltage team who does the work. Emmett provided support for building the wire way, cable pulling, splicing and terminating high voltage cables for the athletic precinct as well as other projects across campus. His work takes place behind the scenes, and it is vital to the day-to-day campus life. He makes Duke a better and safer place. Congratulations Emmett!!

KEY SHOP RECYCLES, RE-KEYS

In April, **Barry Clark**, Manager of Key and Lock Operations and **Joey Ingram**, Locksmith, took 3,375 pounds of brass, stainless steel, and aluminum to a recycling center to be melted down for reuse. The Key and Lock Shop has been recycling metal for over 15 years.



Facilities Management's Key and Lock Shop is unique in that it is the only FMD unit that works inside Duke Medical Center buildings. For security, the locksmiths cover both the University and

the Medical center so that they are the only ones with control over all the door locks and keys on campus.

When a key is lost or no longer in use, a new key has to be made by a FMD locksmith. Local locksmiths are not allowed to make keys to a Duke door.

The shop generates lots of metal to be recycled because many doors are re-keyed frequently. For example, a student dorm room door gets re-keyed after the students move out at the end of the school year, but before the campers arrive, and then again once the summer campers move out, but before the new students arrive in the fall. If the room is a double, it means a residential door generates four keys each summer. The summer camps generate approximately 1,600 keys to be recycled each summer. During the school year, a door locks are changed only if the keys are lost or stolen.

FMD locksmiths have been working on replacing outdated cylinders and keys for the past 20 years. When a building is renovated, the doors get new locks and keys, and the old ones are added to the buckets, until the next trip to the recycling center.



You Are Here:

Ninety-three years after the campus was built, a sign that says Duke University was added to the entrance gate on Duke University Road. The limestone tablet weighs 1,100 pounds and was engraved by the John Stevens Shop, the same company that inscribed the World War II Memorial, John F. Kennedy's grave and the Martin Luther King Jr. National Memorial. It is the second time since the founding of Duke that the gate has been altered. The first was in 2015 when Ray Walker worked with Vega Metals to create the sconces that were shown in the original drawing but never installed, and Mark Hough designed new landscaping and lighting to highlight the gate.

SPRING PHOTOS



Housekeeper **Fatima Valadovinos** participated in the Nicholas School's Earth Day fair on Friday, April 21st.



Capital Project Support Coordinator **Bobby Browning** led a training session for our HVAC technicians on pneumatic controls on May 9th.



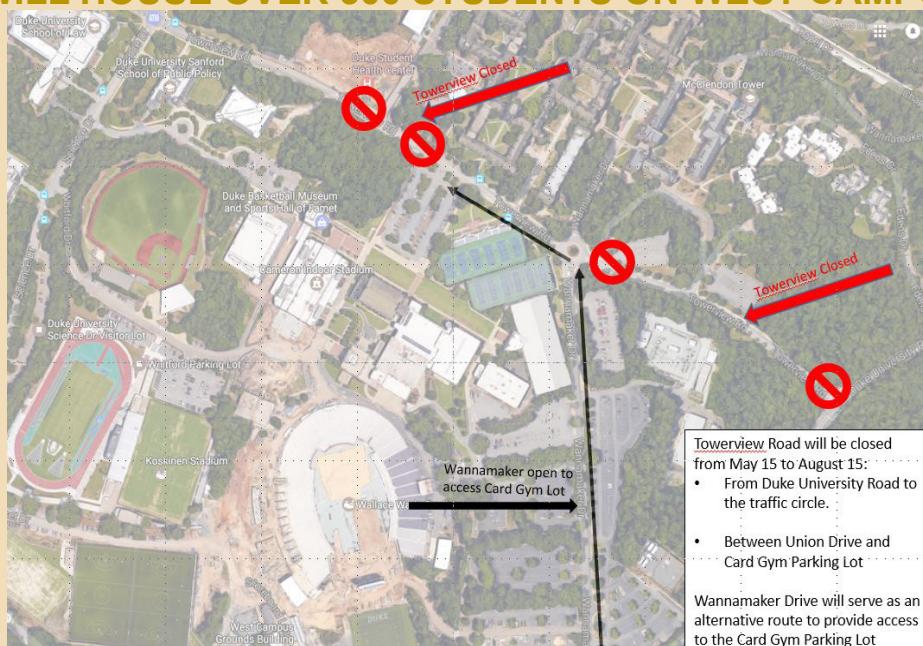
UEVS Supervisor **Wayne Oatis** arrived on campus early on Sunday May 14 because he volunteered to be a marshal during graduation. He helped guide staff, students and faculty during the ceremony.



Sr. Grounds Equipment Operator Jarrod Lundy shoots air down to the roots of the field turf in Wallace Wade Stadium after the commencement stage is removed from the field. It helps aerate and decompact the soil. Jarrod recently returned from a one year military deployment to Qatar.



TOWERVIEW ROAD CLOSED THIS SUMMER:HOLLOWES RESIDENCE HALL WILL HOUSE OVER 500 STUDENTS ON WEST CAMPUS



Towerview Road will be closed from May 15 to August 15:

- From Duke University Road to the traffic circle.
- Between Union Drive and Card Gym Parking Lot

Wannamaker Drive will serve as an alternative route to provide access to the Card Gym Parking Lot

In May the Duke Board of Trustees approved the design and construction of the Hollowes, a residential complex which will house 506 students. In order to provide the required utilities to the buildings, Towerview Road will be closed this summer from May 15 to August 15th. Wannamaker will be open and should be used as an alternative route to the Card Gym Parking Lot.

Duke has been actively studying how to improve the housing for students for many years, and a plan was developed to build a new dorm on both east and west campus which would serve as swing space for students as each residence hall was taken off line for renovation. The new dorm under construction on East Campus is the first step called for in the plan.

However, the plan did not address Central Campus, and in 2015, a building analysis was done which showed that the apartments on Central Campus were nearing the end of their useful life. Replacing the 1,050 beds on Central became a top priority.

The Board opted to build the Hollowes, which consists of nine 'Houses', like a dorm within a dorm. Each house will be designed in suites; each suite includes four single rooms, two bathrooms, a living room, and a kitchenette. The Hollowes will be located on the two small parking lots on Towerview.

The Hollowes consists of two buildings, connected by a portal, shown in the drawing below. In addition to the dorm, McClendon Tower dining hall will be expanded from 38 seats to 110 seats to accommodate the students living in the Hollowes.

Because utilities need to be easy to reach for repair, a tunnel is being built to accommodate the utilities needed to serve the Hollowes. It is over 17 feet tall and 94 feet long. The building will be constructed on top of the tunnel. The roof of the tunnel sits four feet below the first floor of the building. The Hollowes is expected to be completed in time to welcome students in August 2019.



WEST UNION RENAMED

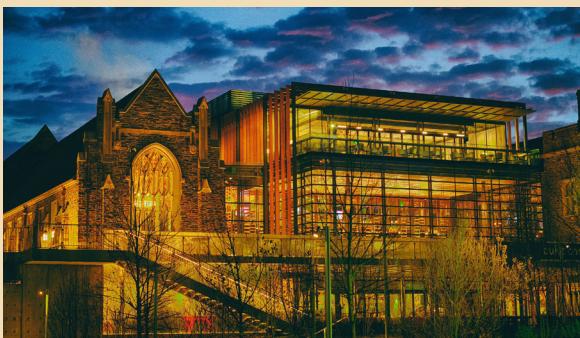


Photo taken at dawn by Mike Monce, Project Manager for the Beck Group, the contractor for the athletic precinct construction.

At their May meeting, the Board of Trustees voted to rename the West Union building after President Richard Brodhead, who is retiring in June after 13 years. The building is now called the **Richard H. Brodhead Center for Campus Life**. The Board wanted to honor him for his work he did to change the undergraduate experience at Duke, and the building serves as a hub for undergraduate activities.

The building has been named one of the “Top 9 Best New University Buildings in the World” by Architectural Digest and recently won two gold medals from the National Association of College & university Food Services. It has also been nominated for the Architects’ Journal 100 Building of the Year Award.

SAFETY UPDATE: CONTRACTOR SAFETY



For the last few years, FMD has been working to implement a contractor safety program, to ensure that the many people working for the companies we hire have received the necessary safety training before they begin working on campus.

To do this, FMD partnered with Avetta, a company that collects, verifies, and maintains accurate records of contractor/vendor’s safety training and certificates. The company makes sure that contractor’s information is current, adequate, accurate and sufficient. FMD staff now have access to Avetta’s database, which stores insurance certificates, safety records, and other business information for every company that FMD hires to work on campus.

In April, FMD was presented the “Collaboration Award” by Avetta. Duke is the first university to use their services in order to improve the safety of the people working on campus

SAFETY UPDATE: FALL PROTECTION

OSHA has revised the fall protection requirements, so the Walking-Working Surfaces written safety program and fall protection training are being updated. Currently, we are halfway through the inspection of all harnesses and lanyards by an independent third party.

CONSTRUCTION UPDATES:



The Rubenstein Arts Center will open in January 2018, is designed to engage all Duke students, as well as the dozens of student dance groups and the Dance Department.



The Softball Field, located on East Campus next to the Williams Field at Jack Katz Stadium, is scheduled to be completed in August 2017. The first home game will take place in the spring of 2018.



The new dorm on East Campus will be called Trinity Hall. It opens in January 2018. East Campus has been home for freshmen only since 1995, but its first residents will be juniors, returning from a semester abroad.



Construction of the new Alumni Center has begun along Duke University Rd between Chapel Dr. and Anderson St and is expected to last two years. The project includes an event venue, meeting space, and a restoration of the Forlines House.



The final phase of the Wallace Wade Stadium improvements is underway and includes a new guest services/First Aid Building, new bathrooms, and ADA balconies along the top rim of the stadium bowl.



Crowell Quad has not undergone any major renovations since it was constructed in the 1930s. The year-long renovation started after commencement and includes air conditioning, upgraded electrical and plumbing, and updated bathrooms and common spaces.