

# FACILITIES SERVICES 2015 FALL & 2016 SPRING PROJECTS CATALOG



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## Administration

### Special Projects/ARCHIBUS

Fall 2015 Projects:

Several major Archibus milestones took place during the fall 2015 semester.

The implementation of Business Manager approvals on October 1 now allows financial officers to approve chargeable work before the work is queued up to Facilities.

Key Module testing began November 1. Approvals will be developed by OIT and a new key handling system will roll out at an expected January 31 date.

Phase II application testing began November 9 and was completed January 1.

Spring 2016 Projects:

The rollout of several new Archibus applications will begin during spring 2016 and are slated to be completed in the following order:

1. Capital Projects, Capital Budgets, Condition Assessment
2. EHS, Clean Building, Sustainability Assessment
3. MSDS (Chemical Inventory)
4. Energy Management
5. Solicitation Event system migration to AdAstra
6. GIS
7. Commissioning, BIM
8. Mobile Integration with tablets (contingent on upgrade)

## Administrative & Support Services

Fall 2015/Spring 2016 Projects:

In addition to everyday job duties, the Administrative & Support Services unit is working with Communications & Information Services and Special Projects to enhance Archibus processes related to accounts payable, accounts receivable, and warehousing.

The Central Supply Office staff are also preparing for the transfer of inventory to the new Facilities Services Building. This transfer will involve personnel training in 5S, material surplus, inventory transfer management, and new warehouse storage design.

## Communications & Information Services

### Sustainability

Fall 2015 Projects:

The Office of Sustainability completed several noteworthy projects, successfully planned events, and was awarded a number of grants during the Fall 2015 semester.

The office was awarded a TDCE Composting Grant (\$43,500) and TWRA Stormwater Grant (\$1,000).

A Finalist Designation was achieved for the Second Nature Climate Leadership Award.

The Office of Sustainability organized and managed the 11th Annual P.O.W.E.R. Challenge on campus.

The subunit applied for the Green Cleaning Award from American Schools and University and the APPA Sustainability Award.

REC pricing was restructured by the office.

The Green Revolving Fund was increased by \$100,000 and is now at \$450,000.

The office established and awarded funding to two student design/research funding proposals.

The Environmental Progress Report is being updated and is scheduled to be finished by February 2016.

Version 2.0 of the Climate Action Plan update is scheduled to finish June 2016.

The Campus Sustainability Day event was held on October 22.

The office brought Silva culture under the Make Orange Green umbrella.

Spring 2016 Projects:

During the Spring 2016 semester the Office of Sustainability plans to complete several large-scale projects.

The office is updating the Environmental Progress Report with a scheduled competition date of February.

Work continues to finish the Climate Action Plan update, Version 2.0 by June 2016.

Work will continue on the UAV Management Program and the Sustainable Dining Task Force.

Earth Month events will take place throughout April (Earth Day Celebration, Environmental Leadership Luncheon, Big Green Friday, etc.)

The redesign of the Office of Sustainability Web site will continue ([environment.utk.edu](http://environment.utk.edu)).

The Sustainability Communication Portal will be rolled out during the spring semester.

Work will continue on the Sustainability Working Group symposium.

Green Sports Alliance Membership will be established, and the office will continue its funding partnership with Vol Network, Athletics, and UT Recycling.

The Sustainability office will continue to be involved in the Vehicle Task Force.

The office will apply for several grants during the spring (TVA Settlement Solar Grant, EPA Leadership Grant, etc.)

The Green Office Program has a planned rollout in spring 2016.

## Employee Training & Development

Fall 2015 Projects:

### **Course Management:**

The Certified Custodial Professional (CCP) Instructor Manual is nearing completion. It outlines the expectations and requirements for appointed and certified instructors/trainers for the 2016 certification program. Program rollout is set for spring 2016.

The subunit hosted Customer Service Training for all Zone Maintenance employees. The majority of them will be complete as Group 4 finished their last module in December. The last group is set to begin in January and graduate in February.

Employee Training & Development will unveil a new course in preparation for our move to the Support Services Building. Titled "5S," the course will introduce a system of continual improvement originating in the science of lean manufacturing. The 5S program focuses on having visual order, organization, cleanliness, and standardization.

### **Environmental Health and Safety:**

Training & Development is now managing the Respiratory Protection program for Zone Maintenance, Paint & Sign Services, and Sanitation Safety.

The Environmental Health and Safety (EHS) office purchased a qualitative fit test kit in September. We are currently arranging and conducting two sessions monthly to accommodate medically approved employees. EHS is assisting with this operation by fit testing Steam Plant employees.

Flame Retardant (FR) jackets supplied by Cintas are available in the Training office for order sizing. These winter jackets are intended to be worn by all FS employees who are currently supplied with FR shirts and pants.

Currently managing the application of Skillsoft-based required Safety/OSHA training. Employees must complete assigned EHS modules during the month of their birthday. We are looking at ways to increase the participation and overall regulatory compliance with this important part of our training curriculum.

The subunit provided required OSHA training for new FS associates.

Meetings have been conducted with campus EHS and Risk Management to identify means to collaborate on FS Safety and risk reduction initiatives. Plans include the publishing of unit injury/illness information, accident prevention educational material, and supervisory safety workshops.

### **New Employee On-Boarding:**

Ongoing facilitation of weekly two-day new employee orientations includes required OSHA training, Facilities handbook/policy coverage, professional image/conduct expectations, diversity training, compute training (Archibus, IRIS, and email) and team building exercises.

The subunit assisted staff (individually and in groups) with completion of the Outside Interests Disclosure form online.

### **Other Programs:**

The subunit has been actively involved in the initial planning phase for TNAPPA 2017. Our office makes up a large part of the core planning committee. We helped arrange the kick off meeting for all committees and recruit members from all of Facilities Services.

Training also assisted in the facilitation of the DIY Plumbing Fundamentals workshop series.

Spring 2016 Projects:

Training & Development will enhance and refine the department's library of translated EHS training material. In an effort to maximize our training impact on English Language Learners, we will examine our training material and make necessary modifications to allow for a more direct translation into other languages. The use of graphics, pictograms, and video will be incorporated.

The subunit plans to propose the formation of a Facilities Services Training & Development Lead Team, which will serve to guide and align the subunit's strategic and tactical objectives to the needs of the overall organization.

In cooperation with Communication & Public Relations, Training plans to develop and pilot a Standard Operating Procedure process and deploy a Facilities Services Training & Development Course Catalogue that will provide FS associates with a quick means of identifying and registering for education and training courses. The subunit also plans to develop a Driver Safety Training course.

In addition, new technical courses will be developed for all Zone Maintenance employees. The training will include basic electrical instruction for the non-electrician, HVAC basics, plumbing and equipment safety.

Training & Employee Development personnel will continue to assist unit directors with the development/revision of their organizational Career Ladder process, including revisiting assistant foreman training and possibly seeing how this training could fit into the Career Ladder for Building Services.

Work will continue on programs and processes aimed at successfully integrating English Language Learners (ELL) and English as a Second Language (ESL) employees into the Facilities Services Department. This includes the development of a mandatory language course for non-English speaking employees, pre-hire language proficiency evaluation tools, and active collaboration with the English Language Institute.

Ongoing training support continues for Archibus deployment.

The status and existing design of the Facilities Services University will be assessed.

Existing relationships with university and community training resources will be strengthened and new partners allowing for effective and efficient delivery of quality training and educational programs will be identified.

## IT Support & Maintenance

Fall 2015/Spring 2016 Projects:

Many projects have begun in the fall and will continue for the IT Support & Maintenance subunit.

Wireless lock testing has taken place in partnership with Construction Services.

Subunit personnel are currently conducting exercises and planning with Facilities Services Emergency Operations Center.

The subunit is assisting in the planning and execution of moves to the new Facilities Services Support Services Building on Sutherland Avenue.

Tablet rollouts for Zone Maintenance communication with Archibus will take place for the subunit during the spring.

Testing and rollout of Alertus desktop software will take place, and electronics recycling at Fleming Warehouse continues.

## Communications & Public Relations

Fall 2015 Projects:

In addition to regular maintenance and updates to Facilities Services information distributed throughout campus and the Knoxville area, the Communications & Public Relations subunit started and completed several large scale projects this fall while also coordinating several smaller scale projects.

The 4<sup>th</sup> and 5<sup>th</sup> Facilities Fundamentals Workshops were held during the fall semester and featured UT Recycling & Plumbing Services. The Communications & PR subunit organized the events including announcements, ordering food, preparing pamphlets, filming the workshops, organizing the content, publishing the video, and sending out surveys.

Communications & PR continued its work on the Facilities Services DIY video series that was launched during the summer. The videos created and published on [YouTube](#) during the fall semester included topics in Landscaping, Recycling, Sustainability, and Plumbing & Heating.

The subunit organized and hosted the two holiday parties for Facilities Services employees. The 1<sup>st</sup> and 2<sup>nd</sup> shift party had more than 430 employees in attendance and the 3<sup>rd</sup> shift parties had about 70 attendees. Planning for the parties included ordering food, organizing the raffle, coordinating with volunteers, and taking photos throughout the event. This year's 1<sup>st</sup> and 2<sup>nd</sup> shift party was zero waste.

Throughout the fall the Communications & Public Relations office continued to maintain all of the Facilities Services social media sites. To date the department has 653 followers on [Twitter](#), 304 likes on [Facebook](#), 220 followers on [Instagram](#), 1,363 views and 12 subscribers to our [YouTube](#) channel, 14 people in our circles on [Google+](#), and 23 likes and 22 followers on our 397 pins and 9 boards on [Pinterest](#). To improve Facilities Services reach through social media, a content calendar has been created for the year to help the subunit keep track of campus events, as well as planned campus construction projects.

During the fall semester the communications coordinator completed the 450 question APPA FPI Survey. The coordinator gathers all of the necessary information from Facilities, as well as other campus units.

The communications coordinator has begun and will continue to play a lead role in the planning and execution of the 2017 TNAPPA Conference on UT's campus. The coordinator leads the steering (core planning) committee and also serves on several other committees.

The coordinator also serves as a liaison between the Facilities Services planning committees and TNAPPA.

Monthly awards given throughout the fall included four Employee of the Month Awards and an Exceptional Team reception. These awards are ongoing and are organized and managed by the communications coordinator.

The annual Chuck Thompson Awards were held during the fall semester. The communications coordinator was head of the selection committee, scheduling the event, and organizing the nomination forms.

The communications coordinator created facilities program management documents for UT Knoxville, UT Chattanooga, UT Martin, UTHSC, and the UT System.

The Communications & PR office conducted a customer satisfaction survey among building representatives and building occupants. A report was drafted detailing the results.

Throughout the fall the subunit also coordinated with UT Media Relations and local media outlets to showcase ongoing projects on campus as well as members of the Facilities Services team.

#### Spring 2016 Projects:

The Communications Coordinator will submit four different entries to the American School & University Educational Interiors Magazine. These submissions will include Mossman, Henson Hall, Sorority Village, and New Residence Hall. All submissions include data sheets, narratives, and photographs.

The subunit will continue to maintain and update both the public and private (emergency contact) Building Representatives lists. One of the three annual updates will take place this spring.

The Communications & Public Relations subunit will collaborate with Employee Training & Development to create a standardized SOP format and central repository with the aid of department units and subunits. The communications coordinator and training staff members will work with the different units to systematically complete the standardized SOP format. This information will be placed in a supplement unit handbook which will go along with the overall Facilities Services Employee Handbook.

Maintaining the department Web site will be an ongoing process. In addition to providing updated content for announcements, projects, and awards, the communications coordinator will also conduct bi-annual updates with all subunits to ensure that all information is up-to-date.

An annual report was included in the 2015 Facilities Services Showcase. While the Showcase may not need to be updated every year, a department-wide annual report will be created and published through the Communications & PR subunit. The communications coordinator will gather, format, publish, and publicize this annual review the same way the Showcase document was produced in 2015.

Monthly, quarterly, and as-needed construction updates will be submitted by the coordinator throughout the spring.

The communications coordinator will head the department's efforts in the campus-wide Big Orange Family Campaign. The coordinator will organize the team leaders, as well as all of the department's envelopes and donation cards.

The Communications & Public Relations subunit will organize and distribute the 2016 Employee Satisfaction Survey in March 2016. If the participation numbers are higher than those in 2015, there will be plans to turn the annual survey into a bi-annual survey. Survey results will be compiled and distributed by the communications coordinator.

A communications survey will be created by the subunit for distribution to the campus building representatives. The survey will be created by the subunit and once the list undergoes one of its three annual updates, the survey will be distributed and collected by the coordinator.

The communications coordinator will continue to update and maintain department policies throughout the spring semester. All of these policies are kept up to date and the most recent copies are published on the Facilities Services Web site's Policies & Procedures page.

## Construction Services

### Construction Projects

The following details the major projects completed by the Construction Services Unit. These projects are organized by construction coordinator.

#### Fall 2015 Projects:

**Randy Huelsman:** Office renovations were completed in the Burchfiel Building. The renovated offices include rooms 206, 207, 208, and 209.

**Rick Caldwell:** Sliding glass was replaced with windows and a door at Art & Architecture rooms 221 and 229. Communications rooms 262 and 52 were renovated. Concrete was repaired at the G2 and G10 parking garages. At Hess Hall a dorm room wing on the first floor was converted to an office wing. The N-15, N-16, S-37, N-10, and N-6A parking lots on Lake Avenue were renovated.

**Danny Pritchard:** The corridors at Perkins Hall were renovated and new furnishings and monitors were added. New exterior and interior door access controls were installed at Perkins, and the installation of the fire alarm system continues. Blanket maintenance continues on all campus classrooms. Room 409 was renovated at Austin Peay. New doors and openings were added to Perkins Hall rooms 114 and 115. Repairs to a rafter and slat board were completed at the 17<sup>th</sup> and Cumberland Volshop. Thirteen classrooms were upgraded at Estabrook, and classrooms were renovated at Humanities.

**Wes Hinshaw:** A spray/wash booth was added at Art & Architecture. The kitchenette was renovated in room 457 of Communications & University Extension. A safety shower/eyewash station was added at Radiological Safety.

**Bryan Lord:** Roof remediation took place at Art & Architecture, College of Nursing, Dougherty Engineering, Food Safety, Hesler Biology, HPER, Howard Baker Center, JAR-TU, McClung Tower, Morgan Hall, Nielsen Physics, Volunteer Hall, and Pratt Pavilion. New awning was installed at the east side of the Howard Baker Center. Window flashing and lighting rods were repaired at Pratt Pavilion. Masonry repair took place at Regal Soccer Stadium. A solar project was completed at 11<sup>th</sup> Street Garage. At Thompson Boling Arena a distributed antenna system (DAS) was installed for AT&T and Verizon.

**Darcy Rathjen:** At Student Services guardrails were replaced at the 2<sup>nd</sup> floor roof and 3<sup>rd</sup> floor plaza bridge.

Spring 2016 Projects:

**Randy Huelsman:** At Dougherty Engineering six new circuits and gas value #103 will be added, as well as snorkel ventilation #206, and an eye wash station #428. LED lighting will be added to Thompson Boling Arena 208J. Carpet was replaced in room 209 at the UT Conference Center. A new slat wall was installed at VolTech in the Student Union.

**Rick Caldwell:** Work will be completed on display cabinets and windows on the 1<sup>st</sup> floor of Hodges Library Special Collections. Upgrades to security devices will take place. Annual maintenance will continue for campus structures. At Delta Gamma Sorority the window trim will be updated and plantation shutters will be added. A window film will be installed at Hodges Library in rooms 236 and 541. A new wall and door will be installed at Haslam Business in room 428, and a door will be replaced in room 407. At Fleming Warehouse a new emergency alarm and notification system will be provided.

**Danny Pritchard:** A new kitchen will be added to Communications room 4027J. We will also place orders for summer classrooms renovations.

**Wes Hinshaw:** The deluge system will be restored and upgraded at the Clarence Brown Proscenium.

**Bryan Lord:** Roof remediation will take place at Andy Holt Tower, Howard Baker Center, Jessie Harris, Pratt Pavilion, Walters Life Sciences, Morgan Hall, Food Safety, Hesler Biology, and TREC.

**Darcy Rathjen:** Guardrails will be replaced on all floors at Andy Holt Tower. A new director's office will be added to the Taylor Wing Floor 1 at the Law Complex. New Lighting and furniture will be added to the 3<sup>rd</sup> floor patio at Communications & University Extension. Also at Communications, room 467 will be remodeled into new digital display/interaction area. Repairs will be completed on the concrete beams at G10 Garage.

## Design Services

### Project Management

Fall 2015 Projects:

Major projects completed by Project Management during fall 2015 include the following.

Austin Peay 2<sup>nd</sup> floor renovation.

11<sup>th</sup> Street Bridge painting.

Perkins Hall renovations.

Campus Master Plan update.

Hill Master Plan.

Lake Avenue Parking Garage Program.

Spring 2016 Projects:

Project Management will begin or continue work on the following projects throughout the spring of 2016:

West Campus Dining Programming.

Presidential Court renovation program.

TANDEC lab renovation.

Senter Hall Greenhouse addition.

Buehler Lab renovation.

Student Union Phase II.

Strong Hall.

Mossman Building.

New Residence Hall.

Stokely Gibbs Parking Garage.

Haslam Fields.

West Campus Redevelopment.

Support Services.

Estabrook Phase II.

JlAMS Phase II.

## Interior Design

### Fall 2015 Projects:

Carpet replacement in rooms 20B & 20C at TRECS.

Carpet installed in room 53 McClung Museum.

Paint, carpet, and furniture renovation at Dunford first floor Disability Services and Henson Hall.

Carpet, paint and LVT installed in Communication room 52.

Paint and carpet installed in rooms 402 and 512 of McClung Tower, SMC conference rooms on second, third, and fifth floors, East Sky Box lobby and corridor, and Daily Beacon Suite.

LVT and paint installed in room 216 at McClung Tower.

Maintenance painting at Alumni Memorial Building.

### Spring 2016 Projects:

Carpet will be installed in Communications rooms 402D, 467, 409 (WUOT), 202, 101B, & 101C, floors 2-4 of Melrose, and Conference Center rooms 412 and 209.

New furniture and window coverings at Delta Gamma.

Conference Center renovation of first and second floors to include new flooring, paint, and furniture.

Maintenance painting at SERF and Communications room 467.

LVT at Conference Center suite 209.

Signage at Student Union/Volshop.

New paint palette at Kingston Pike Building.

## Landscape Response Team

### Fall 2015 Projects:

Installation and construction administration projects included Circle Park and Torchbearer Plaza, the Engineering Quad, Estabrook Road and Second Creek Phase 1, and Sorority Village slope improvements – planting and irrigation.

Landscape Response completed the Lake Avenue surface lot planting design, Ayres Hall flag pole and south entry landscape renovation design, seasonal color design, the Communications/Student Services main sidewalk nook landscape renovation design, and the HPER west and south façade landscape renovation design.

The subunit also developed a better Wi-Fi pedestrian light pole system for use on campus, worked on Volunteer Blvd. streetscape programming, coordinated the Strong Hall Wildflower and Rock Garden with Design Team, Facilities Services, and end users, assisted UT Gardens and

Department of Ecology & Evolutionary Biology with their proposed bat house design for UT Gardens, continued to work on signage programming, messaging, and locations, and completed the UT Master Plan Update.

Landscape Response completed the design review and installation assistance for two different Silva Cell experiments for Dr. Hathaway and the design review and installation assistance for the installation of two rain gardens on campus for Dr. Ludwig.

The subunit also worked to get a portion of the campus site standards (benches, tables, and waste receptacles) added to a state contract, toured several tree nurseries looking for quality trees to source for future projects, and mapped pole banner locations for Communications and RRT. The map makes it easier for customers to determine where they want their banners and for RRT to know where to install.

In addition, the team assisted writing an outdoor signage policy with Communications.

### Spring 2016 Projects:

Design of the Volunteer Blvd. Streetscape Concept and Phase 1 – Project management and review.

Estabrook Road/Second Creek - Phase 2 – Construction Administration.

UT Landscape Vision and Site Standards Update.

Design of a landscape renovation for Dunford Hall and the neighboring “horseshoe.”

Design assistance & installation of Clement Hall’s West Side Site Improvements.

## Stormwater Management

### Fall 2015 Projects:

Completed the overarching Stormwater Management Plan as required of our MS4 permit, the Outfall Monitoring report as required by our MS4 permit, and the MS4 Annual Report and submitted to TDEC.

River Rock from Thompson Boling Arena was transferred to the Estabrook Rd. site and placed on the stream bank for stabilization purposes last week, where 50 ft. of the west stream bank was stabilized.

The subunit completed the EPA water quality score card document and submitted to TDEC and received an \$800 grant to fund a Stream Cleanup event on campus.

The stormwater coordinator was a guest lecturer for Mike McKinney’s Restoration Ecology Class. As part of the lecture the coordinator discussed our Estabrook Road/Second Creek project and how we plan to improve the area.

The subunit began discussions of the Stormwater Master Plan updates with the Stormwater Advisory Committee.

Installation of rain gardens on the Agricultural Campus between the two Biosystems Engineering buildings and on the Main Campus behind Claxton Education were completed.

Stormwater Management was awarded a \$20,000 grant for planting trees along Second Creek.

The stormwater coordinator has been assisting the Entomology and Plant Pathology department by providing drainage plans needed for their application for a USDA-APHIS permit to do pathogen inoculations in one of the greenhouses on the Ag Campus.

A stream cleanup in Second Creek was conducted with the American Society of Civil Engineers. There were 10 Volunteers, and were able to collect a full truck load of trash from the creek.

The coordinator worked with College of Engineering to coordinate installation of Silva Cells at two locations on the Agricultural Campus for Urban Tree research, and met with an Environmental Science Class from the STEM academy at Second Creek to discuss water quality and our efforts in that area.

A public meeting was held to discuss the Fiscal Year 2015 Annual Stormwater Report.

The coordinator conducted a lecture/discussion with a Civil Engineering Class on "green" engineering practices and how respective structural, civil, mechanical, and environmental practices work in unison when designing and building green infrastructure. As a result, the coordinator has been invited to be the guest speaker at the American Society of Civil Engineers meeting in January to discuss this topic.

Construction was completed on the grant funded Surface Water Treatment Wetland at the UT Gardens and the Outfall Dry Weather Screening for 45 Stormwater Outfalls on Second Creek and the Tennessee River.

A Habitat Assessment on Second Creek was completed.

Spring 2016 Projects:

The subunit will plant approximately 400 native species seedlings in the Riparian zone of Second Creek.

The subunit will conduct a Dry Weather Screening on Third Creek and East Fork of Third Creek, as well as Habitat Assessments on Third Creek and East Fork of Third-Creek.

A Land Condition Assessment Protocol will be developed for campus.

The stormwater coordinator will work on a \$60K grant for Urban Stream improvement and will proceed with and update and standards for Stormwater Master Plan, as well as the best Management Practice Manual.

A Stormwater Scavenger Hunt will be organized for Earth Week.

## GIS Mapping

Fall 2015:

During the fall semester the subunit completed a campus map for the Admissions Office, the 2015-16 Basketball season map for Parking Services, a campus map highlighting buildings based on their land use map for Environmental Health & Safety, location map of street lights and pedestrian poles for the Office of Communications and Marketing, and maps for the Stormwater annual NPDES report.

Updates to the campus online map were also completed. These include adding new layers showing gender neutral bathrooms and lactation rooms on campus, adding new layer showing Dining locations on campus and along Cumberland Ave. that accept VolCard accounts, and maintaining the Cone Zone Project and Safe Zone Network layers.

Buildings with replaced signs were updated on the online map's building footprints layer to list department names and website links.

Spring 2016:

Providing GIS support to UT Police Department.

Continuing to update building footprints layer on online map to list the names of departments and a link to each building's Web site. All buildings will include this information before all signs have been replaced. In addition, we are working with the Office of Communications and Marketing to implement a search function where users can search for a Department on the map.

Providing GIS support to the Office of Emergency Management for their update of the University's Emergency Mitigation Plan.

Beginning stages of setting up GPS units, field procedures, data field descriptions, and geodatabase for complete inventory of all trees on UT Knoxville Campus.

Working on a gap analysis project with staff at the College of Nursing to identify counties in Tennessee that are underserved by nursed-managed clinics.

Inventory of all street light and pedestrian poles on campus for the Office of Communications and Marketing.

## Space & Archives

Fall 2015/Spring 2016 Projects:

Major renovation plan updates published to Archibus include Brehm Animal Science Building/Food Science & Tech Building, Dougherty, Hodges Library, and the Vet Hospital.

Updated small scale drawings of backlogged mini audits to College of Nursing, Communications, Morgan Hall, Conference Center, Ayres Hall, Art & Architecture, and Greve Hall.

Completed verification and gross square footage update for 43 buildings on campus. Continuing to verify & update this information for all buildings.

Numbered rooms for all the West Campus Buildings buildings as needed for renovations.

Approximately 70-80% of archived blueprints and specifications have been digitally scanned.

Completed annual campus space inventory and finishing up with classroom technology inventory.

## Facilities Operations

### Building Finishes

Fall 2015 Projects:

#### **Paint Services:**

Painting Services painted the exterior of the White Avenue Day Care and the common areas on the sixth floor of Dunford Hall, and started painting common areas at SERF.

The team also worked on various work requests repairs and removed graffiti in many locations.

#### **Sign Services:**

Sign Services worked on new Wayfinding building signs, as well as ADA signage for University Avenue and various signs for Parking Services.

The team also created directories and recycling signage, along with Henson Hall renovation signage.

New signs were installed at various locations on the Agricultural Campus and new Blue Phone signage was created.

Various name plates were also created for campus departments.

#### **Building Finishes:**

Building Finishes began the installation of new Wayfinding building signs during the fall semester.

The team also installed Cone Zone signs at many locations, poured concrete sidewalks in several areas and corrected concrete trip hazards around campus.

Building Finishes worked on various work requests ranging from repairing doors, installing VCT tile, installing and patching sheetrock, repairing brick and block, hanging white boards, pictures and plaques, and various other requests.

Spring 2016 Projects:

#### **Paint Services:**

Paint Services will continue working on common areas at SERF, painting the new Facilities Services Building, and working on Purchasing Department at Middlebrook Pike Building.

The group will also paint the Veterans area at Hoskins Library and Student Services for HR move, and will paint exterior of South College and Corps Genetic Lab and various other work orders.

#### **Sign Services:**

During the spring semester Sign Services will continue to work on indoor and outdoor signs on University Avenue, new Wayfinding building signage, as well as signage for Parking Services, UT Recycling, and Blue Phones.

The team will also install various building room numbers and directories, as well as vinyl applications.

Various traffic signs and name plates will also be completed.

#### **Building Finishes:**

During the spring semester Building Finishes will address concrete sidewalks, trip hazards, and ADA access areas.

The group will continue to install new Wayfinding building signs and Cone Zone signage.

Concrete will be poured at VET Teaching School and a new sidewalk at College of Nursing will be installed.

The team will also work on various work request to include repairing and installing new doors, installing VCT flooring, patching and installing new sheetrock, block and brick repair, installing white boards, plaques, pictures, and other various items requested.

### Building Services

Fall 2015 Projects:

The Building Services subunit completed its 4<sup>th</sup> Cleaning Certification Class, opened the new Student Union, began 24 hours/day coverage, and began servicing the new facility at University Avenue.

During football season, the subunit provided the cleaning service for Neyland Stadium with Building Services and university students for the first four home games, then a contractor provided the cleaning of the bowl for the final three games.

Building Services received National Honorable Mention from American Colleges and University for our Green Cleaning program efforts.

The unit has reduced annual cleaning supply costs by more than \$100,000 per year even with the addition of over 1M new square feet of space.

#### Spring 2016 Projects:

Building Services will host the Cleaning Management Institute "Train the Trainer" course in March.

The subunit will begin servicing the JIAMS Facility and the Cherokee Campus this spring.

The evaluation of Robotic Equipment will continue into the spring semester. This equipment may be used to cover large areas, thereby, freeing up staff to continue detailed work.

The subunit will also prepare for servicing all athletic venues along with maintaining them with in-house staff, and will increase educational information on recycling and reduction.

## Landscape Services

#### Fall 2015 Projects:

The subunit was the recipient of the Professional Grounds Management Society 2015 Green Star Honor Award for implementation and sustained high level maintenance of the Lake Loudoun Blvd. streetscape corridor.

A Turf Manager (Matt Layne) was added to the subunit's horticulture staff professionals.

Irrigation was installed at the Clarence Brown Theatre and the surrounding area was landscaped. A new ADA ramp was also installed at the north entry.

At Blueberry Falls a black post and chain were installed at the west end to prevent foot traffic on the new lawn.

Trees were pruned at Fraternity Park to provide clearance for security cameras.

The Landscape Services subunit assisted the contractor at Circle Park with general clean-up and opening the park.

Turf maintenance and repair was ongoing during the football tailgate season.

Also at Circle Park, seasonal flowers were replaced for the first home game and trees were pruned throughout to raise canopies for TN Tailgate.

The subunit assisted with electric switch gear installation east of Thompson Boling Arena.

At Lake Ave. parking lot construction the team completed installation of cross ties for definition of gravel parking lot and convex mirror at intersection near traffic exit.

Emerald Ash Borer treatment continued.

At Cherokee Farm Landscape Services bush hogged lower pasture areas and around golf facility.

The subunit completed pre/post football game prep and clean-up throughout campus during the season.

At the Crops Genetics Building the team assisted Plumbing Services with roof storm drain replacement.

Landscape Services assisted Biosystems Engineering class with installation of the stormwater rain garden project at the BESS building and the Bailey Complex Addition.

Asphalt pothole repair took place at Vet Hospital on the Agricultural Campus.

There was a campus wide removal of hazardous tree branches and pruning to accommodate security cameras, pedestrian lighting, and vehicle traffic.

Aeration and over-seeding of turf took place campus wide.

The team worked on spot treatment of broadleaf weeds in turf areas.

Campuswide street sweeping was completed.

Irrigation systems were monitored and repairs/adjustments were made as needed.

A gravel parking area was installed under west ramp at Thompson Boling Arena.

Landscape renovation took place at the Ayres Hall south entrance and flag pole.

Landscape Services prepared for visits by UT BOT, ESPN SEC Nation, and Presidential Candidates.

Installation of 12,000 seasonal flowers and 12,000 tulip bulbs, and campus-wide leaf removal were completed.

Snow equipment was inspected and readied for the season.

At Sorority Village a rock and inlet grate was installed in the detention pond to improve stormwater quality.

Removed old building signs where new ones have been installed.

Min Kao conduit installation and landscape repairs along Cumberland Ave. between Estabrook Rd. to pedestrian bridge tie-in were completed.

Coordinated with KUB to minimize impact on campus landscape during gas pipeline install.

Installation of topsoil for future landscape at new Lake Avenue parking lots was completed.

The team took inventory and developed a plan for street tree replacements this winter.

Developed planting plan for Second Creek Reforestation Project.

Inventoried rose population in Sorority Village to develop a Rose Rosette virus management plan.

Pre-winter fertilizer application to lawn areas was completed.

Excavated for new concrete bike pads at Nursing, Pendegrass Library, and Sorority Village.

Prepped area for City of Knoxville Greenway ribbon cutting ceremony at Cherokee Farm.

Developed Facilities Services Snow Procedure guide mapping out essential personnel priorities and responsibilities.

Sod repairs throughout campus included Ayres Hall and Blueberry Falls.

Dead wood and lower branch removal from mature trees was completed at Staff Lot 9, Bailey Complex, and College of Nursing.

Dead Ash trees were replaced with more urban-suitable diverse species at UTIA lot S66 and S65.

Winterized irrigation systems campus wide.

Assisted Plumbing Services with replacement of storm drains from roof at Crops Genetics Building.

Landscape Services assisted Biosystems Engineering class with installation of stormwater rain garden project at BESS Building.

The team assisted an Urban Forestry class with basic rope setup for climbing instruction.

Continued Emerald Ash Borer treatment and demonstration for Dr. Lambden's Entomology class.

Met an AP Science class from L&N STEM Academy to review Second Creek Reforestation project.

Coordinated talks with Urban Forestry and Facilities Services staff to develop tree inventory data collection tools (PDA, laptop, GPS, etc.)

Assisted Department of Civil and Environmental Engineering with installation of silva cell research project on the Ag Campus.

Conducted sessions from Landscape Academy with existing staff.

Landscape staff held a TN Dept. of Agriculture Pesticide Certification and attended the Ag Extension Turf and Ornamental Field Day.

Implemented Tree Care Hazard Assessment and Chain-saw Safety and Operation Policy.

Heavy equipment staff attended OSHA training to include Trench Safety, Trench/Excavation Competent Person, and 10-hour Construction Standards.

Spring 2016 Projects:

The subunit plans to install landscape improvements at Lake Avenue Parking Lots, undergo street tree replacements campus wide, plant native trees and plants at Second Creek Reforestation, and continue landscape renovation at Volunteer Blvd. entrance at Bailey Complex.

Landscape installations will take place at several locations on campus including Student Services/Communications along sidewalk facing Circle Park and at Dunford, Greve, & Henson Halls during the renovation of adjacent parking lot.

A plan proposal will be developed for campus wide irrigation central control system.

Overseeding of primary turf areas and the application of pre-emergent herbicide on all turf areas will take place.

The College of Nursing building turfs will be renovated.

Aging irrigation controllers will be replaced and landscape beds will be mulched.

Landscape Services will prepare JIAMS prior to faculty and staff move in.

The irrigation systems will be started up and tested in March and April.

Staff will be increased for seasonal needs.

The subunit will support landscape needs prior to move in at the Support Services Building.

Steam Plant Hill will be reorganized after Facilities Services units move materials to new building.

Development of Landscape Academy training curriculum will continue and the Landscape Services Career Path will be revised.

## Lock & Key Services

Fall 2015 Projects:

The subunit completed the key request fulfillment and pickup for fall semester.

A new computer database was integrated into Lock & Key program.

Keying, setup and installation was completed in rooms 1525 and 1526 at University Avenue.

Rekeyed all elevator mechanical rooms at Sorority Village for outside contractor.

Spring 2016 Projects:

Keying, setup and installation is plant for JIAMS, 1525 University Avenue, and Support Services.

Completing stairwell exit device upgrades at Stokely Management Center and replacement of exit hardware at Dougherty Engineering.

## Rapid Response Team

Fall 2015 Projects:

Rapid Response Team completed 279 work orders during the course of the fall semester.

The requests included moves at MTAS, the Institute for Public Services and items from The Glazer Building.

Spring 2016 Projects:

The subunit is planning for moves from Science and Engineering & Dabney Buehler to the new JIAMS Facility, Human Resources from Conference Center to the Student Services Building, Retirement and Benefits from first floor Conference Center to the second floor, and UT Foundation from the sixth floor of Andy Holt Tower to 1610 University Ave.

When the new Facilities Services building is ready RRT will move employees to the new Support Services on Sutherland Ave.

Rapid Response Team crews will also set up for special events on campus for staff and students throughout the year.

## Sanitation Safety

Fall 2015/Spring 2016 Projects:

Sanitation Safety is tasked with several different responsibilities all of which require specialized state licenses: Pest, Wildlife and Termite Control, Asbestos, Lead, and Mold abatement.

In the pest segment, crews have treated the exterior of 195 buildings bi-annually and 14,590,842 square-feet of interior campus building space monthly using integrated pest management, promoting efforts to reduce the use of pesticides inside of buildings.

The Sanitation Safety asbestos abatement segment assisted with projects to help keep other units and departments compliant with EPA and OSHA.

Recent and future renovations to the new Student Services Building, Dabney Buehler, Dunford Hall, and summer classroom upgrades as well as pending demolitions are part of this unit's involvement in campus renovations.

This subunit has also been involved with the Presidential Court Complex, Student Union, Strong Hall and Mossman Building projects.

## UT Recycling

Fall 2015 Projects:

The following details all of the goals and projects that were accomplished and completed by UT Recycling during the fall of 2015.

Fall Kickoff Picnic – Chancellor's Picnic: The subunit provided containers and staff to make this a Zero Waste event. Result: Achieved over 90% diversion and everything that was served to people was either recycled or composted.

Updated Solicitation Event form to put more responsibility on groups to provide waste and recycling collection for smaller events, and to streamline process for Facilities Services groups who provide containers and service, all the while increasing opportunities for recycling and composting at these events. Result: Eliminated trash box requests and reduced requests for RRT, Landscape Services, and Recycling.

Working with student group to promote a policy to have all Aramark catering for 250 or more people to be Zero Waste where everything is compostable or recyclable. Results: Draft Policy written.

Zero Waste Game Day: Engaging fans and employees to recycle, compost, and donate as much material as possible with a goal to reach 90% diversion. Results: Donated 5913 lbs of food, composted 34,600 lbs., and recycled 286,890 lbs., averaging 66% diversion for the season, topping out at 75% diversion for the final home game.

Maintained a constant presence with Zero Waste stations on third concourse (North side), which helped us to engage and educate more fans throughout each game.

Competed in Game Day Recycling Challenge for home football games. Results: Placed third in the nation in Total Recycling for one game, placed 14<sup>th</sup> in the nation for Diversion Rate for one game, and recycled more than ANY other school in the country for the entire season!

Game Day Recycling Volunteers: Recruit volunteers to educate fans and collect materials. Results: 289 volunteers for a total of 1,047 volunteer hours.

UT Recycling joined the Green Sports Alliance.

Game Day Recycling Education: Increasing efforts to educate fans to reduce, reuse, and recycle. Results: Engaged fans more by distributing 14,000 Zero Waste Game Day buttons outside stadium and having Zero Waste Ambassadors in the stadium on the 3rd level north concourse transforming it into a Zero Waste Zone for every game.

Cherokee Farms Finance Report: Show trash tonnage, compost tonnage, and costs/savings associated with buying trailer for manure/bedding. Results: Composting manure/bedding has saved the initial \$5,000 investment in the trailer and accrued more than \$4,000 in additional savings.

Finished upgrades to compost site: Revegetation, ditching, leveling, organizing, turning, and shed removal/replacement. Results: Site is fully operational and compliant with stormwater and other regulations, with three batches awaiting screening, testing, and distribution to campus.

Compost site tours: With completion of the compost site upgrades, the site was open for tours. Results: two public tours and one class visit, with a total of 80 people visiting the site to learn about composting processes.

Move-out Donation Drive: Worked with Goodwill Industries to promote the drive at the end of the term in Housing. Results: Donated 3,353 lbs. of material to Goodwill and 90 lbs. of food to new campus Food Pantry at the Tyson house.

America Recycles Day Documentary screening: Worked with professors and honors coordinators to create documentary movie outreach event. Results: 51 attendees.

Tabling: Tabling at various Welcome Week events and involvement fairs. Results: we were at five welcome week events and got 247 pledge signatures.

Started Recycle Talks program to go to departments and talk with them about recycling in their day-to-day jobs and at home.

Launched Recycling videos about public drop off and the MUG Project.

Launched 1-hr Zero Waste Principles class. Results: Presented to 10 students/staff/faculty, and two 5-min video segments of the class posted online.

Launched newsletter called the "Waste Warrior Update."

Increased Facebook followers from 616 to 659 and Twitter followers from 731 to 780.

UT Recycling installments were placed in TBA.

Hosted a "Cookies for Cans" event for America Recycles Day. Engaged with 500-plus students, and received more than 150 pledges to become a "waste warrior."

Started a back- and front-of-house composting operation in Alpha Delta Pi sorority house in sorority village (thanks to head chef, Robert).

Added coffee ground composting in two P.O.D. markets.

Got approval from decision-makers at Fred Brown to start composting (at least back-of-house) at Twisted Taco and Subway during the spring 2016 semester.

Jay and Anagha's Food Recovery Network presentation at AASHE 2015.

Spring 2016 Projects:

Art Show: Teaming with art professors and students to create a student art show at Gallery 1010 or Striped Light, focusing on waste reduction and reuse.

Logo updated on recycling materials: With the logo change, we're adding more information about what to and what not to recycle on each container.

Partnering with Seven Islands Birding Park, and a UT graduate student to implement educational, recycling boards.

RecycleMania Tournament: Competitions set to take place in the Res Halls and Sorority Village to increase waste awareness on campus.

Earth Day Celebration: We will be working with the Office of Sustainability to put together an engaging Earth Day event in HSS amphitheater.

Spring Move-Out Drive: We will be working with Goodwill, UT Food Pantry and the EcoVols to successfully carry out a donation drive this May.

Recycle Talks: We will continue to carry out Recycle Talks to student groups, faculty meetings and classes on campus.

Recycle Meters: Recycling meters to be placed in residence halls to make students, and staff more aware of the recycling rates in each individual hall.

Installments: Designs to be updated in Residence Halls. Additionally, more signage will be added to HSS.

Volapolooza: Working with vendors to make this yearly event as "zero waste" as possible. Coordinating green team volunteers.

Spring Documentary Screening: We will be working with professors and the honors program to host another spring documentary screening, followed by a guided discussion on zero waste practices and principles.

## Utilities Services

### Air Conditioning Services

Fall 2015 Projects:

#### **Installations completed:**

Bin for ice machine at Starbucks in Hodges Library.

Biocide feed system at the Conference Center Building.

Chilled water piping for AHU in room 219 of Perkins Hall.

Chiller moved to SERF.

Compressors in EGC #5 at Hesler Biology and RTU serving boathouse.

Condenser water pump #1 at the Vet hospital.

Condensing unit in Room 301 of Perkins Hall.

Controls for elevator equipment AHU in McClung Tower penthouse, new package AHUs installed during remodel of EPS auditorium, and units in Physics installed during the Planetarium remodel project.

Cooling tower water treatment controller and feed system at JIAMS.

Cooling unit for EGC in Room 410 at Walters Life Sciences.

DDC controls system on existing AHUs in College of Nursing.

Desiccant air dryer system to compressed air loop at Tickle Engineering.

Inhibitor feed system at Music Chiller House.

More than 30 new chemical feed pumps to building hydronic systems.

Motor in Haslam Business Building cooling tower.

New mini-split systems in room 349 at College of Nursing, room 104 in Jesse Harris, Allan Jones electrical room, and camera room at Women's Softball Stadium.

Piping at Taylor Law and for biocide and inhibitor feed systems at SMC.

Pumps at Reese Hall Chiller building.

Second chiller in Hodges Library.

Secondary pumps serving Dougherty Engineering in the SERF chiller house.

Slide assembly in circuit #1 compressor in McQuay chiller at Allan Jones Aquatic Center.

VAV Boxes and new controls in remodeled room on the first floor of HSS.

Water bug notification alarm system through the existing DDC building system in Min Kao.

Water meter on make-up line to geo-thermal loop at Delta Delta Delta Sorority house .

#### **Repairs completed:**

Air conditioning controls at William Bass Building and Perkins 219 & ladies room units.

Air dryer at Hoskins Library.

Busted steam coils in AHU #4 at JARTU.

Chilled water coil AHU at Reese Hall.

Coupling for condenser water pump at Plant Biotech and #1 primary pump at TBA.

Damaged fan shaft in AHU #3 at Presidential Court.

Exhaust fan serving fume hood in Hesler 232.

Existing piping at Taylor Law.

Freeze-dryer unit for lab in Dabney Buehler.

Heating water pumps at AMB & Vet School.

Ice machine at Presidential Court.

Items on building inspection report submitted by EHS.

Leaking coil in AHU serving the lobby area of AMB.

Major control issues in JARTU labs and on AHUs.

Mini-split in IT room at Dougherty Engineering and environmental growth chambers at Hesler Biology.

Bad sensor on chiller at Brenda Lawson facility.

Package unit on Andy Holt Tower.

Sagging ceiling and refrigerant system in walk-in freezer in the PCB bakery.

Walk-in freezer at Food Safety.

York chiller serving the UTPD at the 11<sup>th</sup> street garage.

#### **Replacements made:**

A/C outdoor condensing units at Lindsey Nelson Stadium.

Bad seal on gearbox of cooling tower at Hesler Biology.

Burnt-up starter on chiller #2 at Claxton Chiller House.

Chilled water coil in AHU #6 at Dabney Buehler and in SERF penthouse.

Compressed air control air dryer and control station at BEES Lab Building.

Compressor controller board on #2 chiller and #1 condenser water pump motor at SERF chiller house.

Compressors in air conditioning unit servicing CRC Lab (old Plot Barn), Trane unit serving the Haslam Tennis Center, package unit at the Boathouse, elevator equipment room at Morrill Hall, and research animal facility at Jessie Harris.

Condenser fan motors in York chiller at Tickle Engineering Building and Trane chiller at the Auxiliary Services building.

Condensing units at Environment/Landscape Lab building, Early Learning Center, CRC building (forestry products), Equity & Diversity, and Auxiliary Services.

Control air compressor at Ellington Plant Sciences.

Defective compressor isolation valves on one circuit of the air cooled chiller serving Brenda Lawson building.

Defective controller and installed a new inhibitor feed system at Haslam Building.

Isolation valves on incoming chilled water lines at Hearing & Speech.

Motor base plate on #2 BAC cooling tower at Hesler chiller house.

Obsolete VAV controls on the fourth floor of Ferris Hall.

Reversing valve in A/C unit at Annex B on the farm.

Server room condensing unit on first floor at Plant Biotech building.

Starter assembly on Trane chiller #1 Humanities Building.

Vibration switch on cooling tower at JIAMS building.

VFD's at Min Kao, Plant Biotech, Clement Hall, Student Health, Neyland Stadium, JARTU, Andy Holt Tower, Auxiliary Services Building, and Thornton Athletics.

Slide valve assembly in screw compressor of McQuay chiller at Allan Jones Aquatic Center.

Control system in Neyland Stadium and components during renovation of the VolShop.

### **Rebuilding projects:**

Heating water pumps at Alumni Memorial and South Greenhouse.

Air dryer serving compressed air loop at SERF.

Condenser water pump at Humanities building.

#1 primary chilled water pump Plant Biotech chiller house.

Condenser water pump #2 & chilled water pump #2 at Andy Holt chiller house.

Secondary chilled water pump at Kingston Pike Building.

### **General projects:**

Assisted Construction with moving fan coil unit at Communications and multiple remodeling projects in Dougherty Engineering, the Vet School with swapping chillers so they could clean cooling towers, and Zone Maintenance with chilled water outage at the Communications Building.

Assisted with campus wide steam outage, an electrical outage at Communications/Andy Holt chiller house, moving cooling tower from Hoskins chiller house to the roof of Hoskins Library, and support for the Orange & White Game.

Began prepping Trane chiller at SERF chiller house for disassembly to perform repairs on second stage vane assembly.

Cleaned air cooled York chiller at Brenda Lawson Center and two cooling towers at Vet School.

Completed air balance in Student Health, compressor change-out on process chiller at Plant Biotech building and condensing unit at Hopecote, start-up of new chiller at International House, Phoenix repairs and installation/replacement projects in SERF and Hesler Biology labs, project consisting of moving our DDC servers for

building automation control to servers located in the Office of Information Technologies, controls repairs at the Kingston Pike Building, air flow recalibration in SERF 716 fume hood, air flow adjustment at Neyland Biology Annex, and work in Neyland Stadium in preparation for 2015 football season.

Reclaimed refrigerant from discarded window A/C units and refrigerators at Fleming Warehouse to be recycled.

Responded to storm outages.

Upgraded existing controls system to DDC and converted to a web based program at Early Learning Center (Building #2), HPER, Ferris Hall, and Andy Holt Tower.

### **Spring 2016 Projects:**

Assist with installation and tie-in of chiller in Hoskins Library that was salvaged from Gibbs Hall before demolition. This chiller will serve Hoskins Library and Senter Hall until the new science building is completed on the corner of 13<sup>th</sup> Street and Cumberland Ave.

Assist with moving cooling tower from Hoskins chiller house to the roof of Hoskins Library.

Change chemical controller at JIAMS building from single controller to dual controller for chemical water treatment for both chiller systems.

Change out two obsolete air conditioning units in rooms 31A and 31B in the HPER Building. The new units will be tied to the building chilled water and heating water loops to aid with dehumidification in these two classroom areas.

Change out 100% of outside air unit serving the Early Learning Center at 2016 Lake Ave.

Complete installation and building tie-in of the new chiller added to Hodges Library.

Continue updating and replacing obsolete controls at ETREC and VAV controls at the Dabney-Buehler Building.

Continue upgrading security protocols in field controllers.

Continue with re-assigning field controllers to communicate with the new BAS servers at OIT.

Install new web based DDC control system in building at 1610 University Ave. and McClung Museum.

Install new mini-split system in electrical room and new load slide assembly in circuit #1 compressor in McQuay chiller at Allan Jones Aquatic Center.

Install new VFDs and controls for AHUs and exhaust fans in SMC penthouse and for new secondary pumps for Dougherty in the SERF chiller house.

Move York chiller salvaged from Hoskins chiller house to storage for future placement in a campus building.

Perform maintenance and leak check on chiller #1 at Plant Biotech Building.

Perform maintenance and repairs on chemical feed pumps in preparation of 2016 cooling season.

Replace bad condenser fan motors on chiller serving the Student Aquatic Center.

Perform maintenance of the Process Chiller Loop serving the growth chambers at Plant Biotech Building.

Perform preventative maintenance and tube cleaning on various campus chillers (rod out tubes, check starter connections, repair purge units).

Perform scheduled maintenance on air compressors serving the laboratory compressed air loop on the Hill.

Reassembling Trane chiller at SERF chiller house and rebuild heating water pump #1 at SERF.

Repair or replace solenoid valves on bromine feeders on campus chemical systems.

Replace busted pre-heat steam coil in air handling unit at the Auxiliary Services Building, chilled water control valve on AHU #3 at Hoskins Library, chlorine feed tubing on campus chemical feed systems, coupling assembly on heating water pump #2 at Morrill Hall, defective and obsolete chilled water and heating water control valves at Neyland Thompson Sports Center, and heating water pumps serving Lindsey Nelson Stadium and TBA's dining area.

Review and implement new chemical water treatment contract for all chilled and heating water systems on campus.

Set up new and existing chiller at Hodges Library to communicate with existing DDC system in the building.

Updating building control system at Lindsey Nelson Baseball Stadium.

VAV control replacement project in process in Dabney Hall and replacing obsolete devices as needed.

Will move York chiller off-line at McCord Hall to Jessie Harris Building to replace McQuay air-cooled chiller. Make connections, replace primary pump, and return to service.

## Electrical Services

Fall 2015 Projects:

Projects described below are Capital Projects at the University where Electrical Services provided project management, field supervision, technical support, construction support and utilities connections.

### High Voltage 13.2KV:

Transformer installations for Energy Efficiency: Two 1000KVA Transformers- Mechanical Building. 1000

KVA Transformer – Communications Building. 1500KVA Transformer – Humanities. 750KVA Transformer – McClung Tower.

UTFS Electrical Services Project: New 15KV S&C Vista installation – 10 switches - for switching and isolation of existing underground distribution circuits outside Parking Garage G10.

15KV Cable Maintenance/Repair: Ckt 2 and Ckt 1 Testing Residence Hall.

Steam Plant Renovation Project – Electrical: New 15KV and 5KV Arc Flash Resistant Switchgear. New 480V MCC Arc Flash Resistant Switchgear. New 13.2KV circuit.

New Student Union - Phase 1: New utility connection – 480V.

West Campus Residence (WCR): Andy Holt Residence Hall – Demolition. Remove from campus 13.2KV utility connection.

11<sup>th</sup> Street Parking Garage – Solar Panel Installation and EV charging Station: Min Kao connection to Solar Power – Research.

Chamique Holdsclaw UT Substation Renovation: Installation of new 15KV Switchgear for Circuits 1 through 10.

Neyland Stadium: Home Football Games – HV Electrical Support.

### Electrical Services (Secondary):

Lighting System Programming – Lutron: Student Health Building, Anderson Athletic Center, Haslam Business Building, and Natalie Haslam Music Building.

Lighting System Programming – Leviton: Ellington Plant Science.

Variable Frequency Drive (VFD) replacements: Student Health, SERF, and Plant Biotech.

Power Quality - Grounding Electronic Equipment for Research, Building Access and IT applications: SERF, Dougherty Engineering, and Communications & University Extension.

Events: After Class and Weekend Student and Faculty Events. Special Events - Destination and Imagination, home football games, etc.

Athletics: the Sports Bubble. Emergency System – Generator.

Power Quality: Grounding electronic equipment for research, building access and IT applications.

Support for fire alarm/building access and HV.

### Fire Alarm and Building Access:

Yearly Testing of FA systems – All buildings: Fraternities/Sororities, Athletics, residence halls, academics, etc.

## Spring 2016 Projects:

Projects described below are Capital Projects currently at the university where Electrical Services provides project management, field supervision, technical support, construction support and utilities connections.

### High Voltage 13.2KV:

Steam Plant Renovation Project – Electrical: Expanded automated controls for normal and emergency power.

Residence Hall – New Gibbs: New utility connection - 13.2KV.

New Parking Garage: New utility connection - 13.2KV

West Campus Residence (WCR): Building 1 and Building 2 - campus 13.2KV utility connection.

New Strong Hall – Lab research Building: New utility connection - 13.2KV.

Outdoor Lighting – Campus Wide – Maintenance.

New 15KV S&C Vista installation – 10 switches - for switching and isolation of existing underground distribution circuits outside Parking Garage G10 – Cable Installation.

Overhead Circuits 7 and 8 to Ag Campus: Relocate to Underground Distribution.

13th Street and Cumberland New Science Lab Building: New Utility Connection 13.2KV.

Cherokee Farms Complex: New 13.2KV Utility Loop – KUB Project/UTFS Support.

13.2KV Underground Cable Distribution Campus Wide - Maintenance/Testing: Ongoing.

### Electrical Services (Secondary):

Lighting System Programming – Lutron: Campus Wide – Ongoing.

Variable Frequency Drive (VFD) replacements: Campus Wide – Ongoing.

Power Quality - Grounding Electronic Equipment for Research, Building Access and IT applications: Campus Wide – Ongoing.

Events: After Class and Weekend Student and Faculty Events. Special Events - Destination and Imagination, etc.

Athletics: the Sports Bubble. Emergency System – Generator. Electrical Response/Investigations - 480V and 208 Systems Building Electrical Distribution: Campus Wide – Ongoing.

### Fire Alarm and Building Access

Every new Fire Alarm system in new Buildings – Inspection, supervision and Testing.

Every new Building Access system in new buildings, including residence halls.

New Building Access Contract – Upgrade existing Building Access hardware and software to new IP based Building Access hardware and software – Campus Wide, Including Agricultural Campus.

Generators testing.

## Plumbing & Heating Services

### Fall 2015 Projects:

The following details some of the major projects Plumbing Services completed during the last academic semester.

Replaced a section of sewer main in the vet school during Christmas break.

Installed Building Heat pumps for Dougherty Engineering over winter break.

Replaced mixing valves and removed PRV at Laurel Apartments.

Reworked and cleaned out drainage at the baseball stadium.

A temporary water line was installed behind the Steam Plant for KUB to install new gas line.

Crews reworked feed for chemical pots at JIAMS.

Extended steam line and installing steam kettles from Student Union kitchen to Morrill Hall.

Reworked and repaired plumbing drain liens at Henson Hall. Sinks and other leaks were repaired at Henson Hall and new radiators were installed.

Removed water booster pump package and four leslie steam hot water stations from Apartment Residence Hall before demolition started.

Reworked steam convertor for hot water at Brenda Lawson Sports Complex.

Repaired trough drains at the Vet School.

At the Vet School crews repaired the horse treadmill, trough drains, and replaced valves on a water line.

Installation of new regulators and temperature probes on steam hose reels was completed.

Installed fire hydrant at Estabrook.

Repainted all campus fire hydrants and repaired fire hydrant at Law College.

New regulators were installed at the SERF Penthouse and South Greenhouse.

Crews inspected and coordinated with KUB for a water and sewer line replacement projects.

Replaced pumps at Reese Hall chiller building and Communications.

Rebuilt a bearing housing for shaft at the Law College.  
Repaired steam leak on feed at Blount Hall.  
Installed low flow fixtures in SERF Building.  
Fixed major leak in drain line at Carrick Hall.  
Pumped out dive pool for repairs to surface at Allan Jones Aquatic Center.  
Provided temporary water line for Walters Life Sciences for the building feed to be tied onto the new main.  
Installed sump pump in Jesse Harris.  
Installed an expansion joint in Thompson Boling Arena.  
Repaired steam leak in tunnel at Dougherty Engineering.  
Replaced storm drain on Agricultural Campus below Crops Genetics.

### Spring 2016 Projects:

The following details some of the major projects Plumbing Services has slated for the spring 2016 semester.

- Install new PVI hot water heating units at SERF Chiller building that will feed SERF and Dabney Buehler.
- Rebuild pumps on main condensate line at the Agricultural Campus.
- Install new hot water line to SERF from SERF Chiller.
- Install new main water line at Hoskins Chiller.
- Install yard hydrant at Cherokee Farms Campus.
- Coordinate next phase of steam line improvements between Strong Hall and Hodges Library.
- Install new trench drain in sidewalk at the College of Nursing.
- Prepare for move to new Support Services Building.
- Assist with water meter replacement on Pat Head Summit to sports facility.
- Repair steam condensate line along Johnny Majors.
- Repair steam leak in Hoskins Library.
- Insulate steam manholes around Alumni Memorial and TREC.
- Assist with west campus redevelopment.
- Inspection and cleaning of water stations on campus.
- Install isolation valves on main water at Laurel Apartments.

## Steam Plant

### Fall 2015 Projects:

The Steam Plant completed several projects during the fall semester that include the following.

Demolition began at the 300-foot stack and the project is nearing completion.

The precipitator has been torn down, as well as the coal receiving building.

Personnel continued to clean the Steam Plant, purging the plant of all coal burning equipment.

A new eight-inch high pressure gas line was installed along with new regulating stations.

The two heaters at #5 boiler have been reworked and new steam traps were installed.

### Spring 2016 Projects:

Spring projects slated for the Steam Plant subunit include the following.

The floor at water softeners is repaired and now the old softeners with new upgraded controls will be installed.

Lighting at and around the new fuel oil, five tanks will be installed.

A new SCADA system for the new gas meters and regulators will be installed.

The temporary softeners will be moved and a new set of stairs will be installed.

The new brine maker tank will be installed along with three new brine pumps.

#4 boiler had to be descaled due to hard water issues.

Continue to install lighting in the dark places around the plant due to new equipment being installed.

Isolation transformer installed on the new feed water pumps and VFD's on fresh air fans on #2 & #3 boilers.

## Zone Maintenance:

### STAR Team

(Special Team to Assist Research)

### Fall 2015 Projects:

The following details some of the notable projects completed by STAR Team during the fall 2015 semester.

Completed renovations of Buehler rooms 602 to 604 for Dr. Darko, a new Chemistry Department hire.

Completed controls upgrades of Liebert Units in Claxton.

Started electrical work in JIAMS labs so occupants can start research as soon as they move in.

Completed lighting upgrades at Dunford Hall, McClung Tower, and Dabney Buehler.

Completed building scopes on Agricultural Campus.

Completed building inspections on two zones.

Completed lighting surveys on all parking garages, HPER, the Middlebrook Building, and Dunford Hall.

Assisted with vibration analysis on equipment in two zones.

Completed clearing out and preparation of Estabrook room B13 after it was vacated.

Started the process of meeting with professors that will move into SERF after the JIAMS move to establish their needs in their new labs.

Spring 2016 Projects:

Complete renovations to the hi-bay area of TANDEC.

Complete addition to the greenhouse at Senter Hall.

Renovate the second floor of Dougherty Engineering for the College of Engineering.

Install environmental chamber in hi-bay area of the Tickle Engineering Building for Dr. Ma.

Install hard piping for hydraulic shake table in the hi-bay area of the Tickle Engineering Building.

Move new occupants into JIAMS and get labs set up.

Renovation of SERF room 109A for Dr. Zawodzinski.

Renovations in SERF for Nuclear Engineering moving from Pasqua.

Continue building scopes, inspections, and lighting surveys across campus.

## Zone Maintenance

Fall 2015 Projects:

### **Neyland Stadium/Athletic Facilities**

After the football season, crew members worked on winterizing Neyland Stadium and all athletic buildings.

### **Perkins Hall**

Crews went through the building and changed out steam traps to help stop steam blow by. Machine rooms have been cleared and the outdoor lighting has been switched to LED. Crew members assisted plumbing shop to unstop guttering. General building maintenance is ongoing and crews have also been working on reinsulating plumbing pipes.

### **Ferris Hall**

Building crews have been cleaning up in all machine rooms and changed out a motor in air conditioning unit in hallway. Unwrapped pipes have been reinsulated and crews worked with roofers to fix leaks. In addition to general maintenance needs, crews also changed outside lighting to LED.

### **Min Kao**

Changed out bearings AUH 1, 3, 4, and 5, and replaced motor AUH 1. Have been cleaning all machine rooms. Worked with the STAR Team in fixing the skylight that is leaking. General building maintenance.

### **Tickle Engineering**

Crews have been working to fix steam blow by, and parts are on order. All machine rooms are being cleaned. An oven was hooked up and had to re-pipe vent. Crews are assisting roofers on fixing roof leaks. Temperatures are being monitored in rooms to find potential air conditioning problems. General building maintenance.

### **South and East Stadium**

Crews have worked on steam blow by in East Stadium and most of it has been stopped. Crews are still working at South Stadium and will be working on blow by until it is all fixed.

### **Dougherty Engineering**

Crews have cleaned up in machine rooms, and have been working with roofers trying to get all leaks fixed. All broken windows and leaking valves are being fixed. Crews repaired an electrical box on the first floor that had water getting into it. Outdoor lighting that was not working properly was rewired and relocated. Crews have also been working to reinsulate all unwrapped piping and general building maintenance.

### **Pasqua Nuclear Engineering**

The shop and all machine rooms have been cleaned. Crews have been working on getting all uninsulated pipes rewrapped and have been fixing all stairwell doors that are not latching properly, in addition to general building maintenance.

### **Estabrook Hall**

Crews changed out some bad air conditioning units and worked on steam issues. Crews also have plans to clean out all guttering after the 1st of the year while also working on general building maintenance.

### **SERF**

Some bad steam traps have been replaced. Personnel assisted roofers in reroofing building. Crews also assisted STAR Team and Charley Anderson in changing lights in the stairwell. Outdoor lighting is being changed to LED. Assisted Air Conditioning Services in fixing hot water pumps, and fixed leak on heat exchanger. Working on recirculating heat on floor, put in order for new motor, and squirrel cage. General building maintenance.

## **Biology Annex**

Crews cleaned up machine room and worked with Plumbing Services on steam issues at steam station. General building maintenance.

## **Presidential Court Building**

Replaced steam return lines, AHU unions on roof, equipment in stadium, and rollers on dish machine conveyor. Insulated all steam return lines and patched roof in several places. Welded hand rails on back dock and wire racks from bakery. Repaired big rotary oven in bakery, coffee maker, garbage disposal in dish room, electrical lines, and conduit to exhaust fan on roof. Rebuilt air compressors and pumps on dish machine and installed new equipment.

## **Anderson Training Center**

Repaired walk-in freezer door heater, ice machine, garbage disposal, and hot wells on serving lines. Replaced all bad or stained ceiling tiles. Rebuilt all faucets as needed.

## **Clement Hall**

Repaired all lights and replaced bad bulbs. Repaired cooler and replaced thermostat. Replaced all bad receptacles. Moved HVAC vent in store.

## **Cumberland & 17th Building**

Repaired both woks and deep fryers, plumbing under counters, and HVAC vents in serving area. Rebuilt all leaking faucets. Replaced and repaired all necessary lighting.

## **Taylor Law Center**

Repaired cooler and freezer.

## **Volunteer Hall**

Ran all lighting and changed all burnt out bulbs. Cleaned coils on coolers and freezers. Changed filters and serviced AHUs. Repaired hot wells on serving line and hot water heater thermostat. Rebuilt conveyor on Quiznos oven.

## **Welcome Center**

Ran all lighting and replaced bad ballasts. Changed filters and serviced all freezers and coolers. Rebuilt all faucets where needed. Serviced ice machine and replaced pump. Serviced all exhaust fans on roof. Repaired pump on dish machine.

## **Mable's Café**

Installed new steam cooker. Repaired plumbing under beverage line, coffee machine, and dishwasher. Rewired range flat top. Pumped out great interceptor. Cleaned and serviced exhaust fans and hoods. Replaced garbage disposal. Moved chilled water coil in AHU.

## **Arena Dining**

Replaced garbage disposal, AHU belts, and heat pump in machine room. Rebuilt dishwasher pump motor. Repaired stack oven and heat in main dining area. Installed new ice machine. Ran all lighting and replaced bad ballasts. Grease interceptor was pumped and serviced. Serviced AHUs in basement.

## **Fred Brown Twisted Taco and Subway**

Installed new proofer box and Turbo Chef. Ran all lighting and replaced bad ballasts. Cleaned out grease trap.

## **Hess Hall Dippers and POD**

Plumbed in new drain line for soda fountain. Installed new ice machine. Cleaned out grease trap. Serviced and cleaned exhaust fans and hoods.

## **Art & Architecture Einstein's Bagels**

Upgraded lighting to LED on serving line. Cleaned coils and serviced coolers and freezers.

## **Hodges Library Starbucks**

Ran new drain line on ice machine. Repaired dishwasher and sanitizer. Replaced instant water heater system. Cleaned coils and changed filters on coolers and freezers.

## **Morrill Hall**

Repaired steam cookers, dishwasher, electric grill, meat slicer, tea machine, and Leslie water heater. Installed new gas ovens, coffee machines, and gas grill. Replaced garbage disposal in dish room. Checked belts and serviced exhaust fan. Changed filters and serviced AHUs on 3rd floor.

## **Student Union**

Repaired deep fryers, grill, dish machine, oven, and coffee machine. Put door closers on new doors. Replaced plumbing under service line and stained ceiling tiles. Ran all lighting and replaced bad ballasts.

## **Haslam Business Einstein's**

Repaired bagel slicer, oven, and coffee machine. Plumbed in ice machine drain. Cleaned coils and changed filters on coolers and freezers.

## **Dabney Buehler**

Energy reducing light project. Maintaining environmental equipment.

## **Walters Life Sciences**

Humidification repair project. Lighting update for energy conservation.

## **South College**

LED lighting was installed to save energy and improve efficiency.

### **Alumni Memorial**

Support was needed for many special orientation programs and events.

### **Nielsen Physics**

Repaired heating and related equipment.

### **Hesler Biology**

Reorganizing machine rooms.

### **Earth and Planetary Sciences**

Repaired of steam control and related equipment.

### **Burchfiel**

Lighting update project.

### **Austin Peay**

Repaired roof leak.

### **Brehm Animal Science**

The new plumbing and deionization system has improved quality and decreased the amount of tank exchanges. Crews will continue to monitor the systems, but they do not require any additional updates since they are already working better than before and providing substantial resources savings. The rain shields also provided the damage control anticipated with the upgrade. The rerouting of duct work was successful in eliminating sound transfer between classrooms and offices. Zone personnel installed door sweeps to minimize the dust carryover when leaving Thompson Boling Arena and entering anywhere into the building.

### **Food Science and Technology**

The rerouting of duct work was successful in eliminating sound transfer between classrooms and offices. Lab users have reported the changes they requested were implemented by Zone 8 have been helpful and appreciated.

### **Food Safety and Processing**

After having the duct work cleaned and replacing damaged ceiling tiles, crews are in the process of having the air rebalanced in the building to promote better air quality and improve the work environment.

### **North, South, and Central Greenhouses**

During the winter break crews replaced shutter motors, changing belts, and performing any disruptive or routine maintenance.

### **Joe Johnson Animal Research and Teaching Unit**

The water supply system for the boilers is working well since some upgrades. Crews have several new experiments happening in the building which require changing set points throughout the day to accommodate the

necessary environment. During the winter break crews performed routine maintenance in all labs, classrooms, common areas, and offices.

### **McCord Hall**

Personnel continued making repairs throughout the building and prepping for routine and required maintenance during the winter break.

### **Business Incubator**

Repairs were made throughout the building and crews prepped for the required maintenance during winter break.

### **Morgan Hall**

Since the new roof has been installed, crews continue to make repairs throughout the building due to water damage. During winter break they worked in the classrooms and office areas to perform any necessary maintenance.

### **TVA Greenhouse**

Crews performed routine maintenance during the winter break.

### **Plant Science Annex B**

A new HVAC system was installed that should improve the air quality and humidity issues within the building. While students and staff were off campus for winter break, crews performed routine and necessary maintenance.

### **Biosystems Engineering & Environmental Sciences Lab**

Many conversions to T8 ballasts were completed. During winter break crews performed routine maintenance.

### **Biosystems Engineering & Environmental Sciences Office**

Many conversions to T8 ballasts were completed. During winter break crews performed routine maintenance.

### **Butler**

New poly tubes were installed to provide better air flow. Routine maintenance was completed during winter break.

### **CRC – Bioenergy Science**

The deionized system is working well since updating. Routine maintenance was completed during winter break.

### **CRC – Material Science**

Several heat coils have been replaced due to age of the units. Routine maintenance was completed during winter break.

### **Crops Genetics Lab**

Due to replacing the steam traps in the building, crews have noticed a considerable decrease in the energy consumption due to blow by on the traps. Routine maintenance was completed during winter break.

## **Ellington Plant Sciences**

Crews are working to change the existing T12 to T8 ballasts to promote energy savings. Work was completed in labs and classrooms to ready them for the spring semester.

### **JlAMS**

The first stage was completed this fall as anticipated and crews have moved onto the second phase of this project. Phase II is nearing completion and we continue to work with the contractors on a daily basis. The building occupants should be able to move in after the 1<sup>st</sup> of the year.

### **Racheff**

Crews continue working on upgrading the lighting system and are rebuilding stream traps. Routine maintenance was performed during winter break.

### **Publications & Services**

Any T12 ballasts were changed to T8 ballasts to help with energy conservation and crews performed routine maintenance during winter break.

### **Plant Propagation**

Repairs continued throughout the building and crews prepped for any required and routine maintenance.

### **Plant Biotech**

Crews continued repairing walls and paint, replacing any damaged ceiling tiles, replacing and repairing venetian blinds, and prepping for routine maintenance during winter break.

### **Kingston Pike**

The adjustments made to the air conditioning system have successfully maintained consistent room temperatures. Crews worked on repairing roof leaks in the warehouse area and during winter break and performed routine maintenance.

### **Environment & Landscape**

Crews continued making repairs throughout the building and prepping for routine maintenance during winter break.

### **One Call Team**

In the past six months One Call has improved the response time for phone requests, regardless of the time of day or events on campus. The work they perform is usually during off-peak hours, but they are the 1<sup>st</sup> responders to any emergencies involving all buildings and public areas on campus. The service they provide is invaluable for standard campus operations during nights, weekends, and holidays. One Call receives on average 100 calls a week on top of having routine maintenance tasks that are performed during their shifts to minimize the disruption to staff and students during normal business hours.

Spring 2016 Projects:

### **Neyland Stadium/Athletic Facilities**

Crew members will prepare Neyland Stadium for the annual Orange and White Game, and will work baseball and softball games. Staff in this zone will also convert the lights in the new football facility weight room to LED bulbs from compact florescent.

### **SERF**

Crews will assist STAR Team in changing lights on first floor and chiller house. HRU units will also be serviced.

### **Dabney Buehler**

Staff will maintain environmental equipment, replace broken stadium seating 300, and continue organizing machine rooms.

### **Walters Life Sciences**

Crews will continue machine room organization.

### **Alumni Memorial**

Stair tread repair project will be completed.

### **Nielson Physics**

Staff will install LED wall packs.

### **Hesler Biology**

The installation of LED wall packs will continue.

### **Earth and Planetary Sciences**

Broken radiators will be replaced.

### **Art & Architecture**

Staff will go through classrooms repairing lights and furniture, rebuild two pumps for building heating water, and work on repairing roof leaks and cleaning pliant traps.

### **McClung Tower**

Crews will winterize bull pond, change bulbs and ballasts throughout building to T8 bulbs, and change lights on trees to LED bulbs.

### **TRECS**

Staff will install new LED light fixtures in men's and women's locker room, clean floor drain baskets in women's locker room, clean air vent in stairwells, and repair step treads that are coming up.

### **HPER**

Crews will continue changing ceiling tiles, repairing wall tiles in bathrooms, and cleaning machine rooms and public areas.

### **Student Services**

All can lighting in public areas will be changed to LED, and crews will work on changing out ceiling tiles from roof.

### **Bailey Education**

Staff will change ceiling in elevator, make room in maintenance shop to store parts, and repair Leslies.

### **College of Nursing**

Staff will change elevator ceiling and repair building lights.

### **Zone 9 General**

Crews will haul bulbs to recycle from buildings, and will change air filters, grease equipment, and repair any issues.

### **Brehm Animal Science**

During the winter break staff performed routine maintenance in all common areas, classrooms, and offices to prepare for the spring semester. After classes have resumed crews will work on the exterior to maintain safety and appearance.

### **Food Science and Technology**

Crews worked during winter break performing routine maintenance in all labs, classrooms, common areas, and offices as needed. During spring crews will work with our internal and external customers to meet their daily needs.

### **Food Safety and Processing**

During the winter break staff performed routine maintenance in all labs, classrooms, common areas, and offices. Crews will continue to monitor the changes made during the break to make sure they were successful.

### **North, South, and Central Greenhouses**

Assistance will be provided for the greenhouse managers to clean, maintain, and upkeep the facilities to their specifications. Everyone continues to look for possible energy efficiency improvements while maintaining the Priva system.

### **Joe Johnson Animal Research and Teaching Unit**

The spring semester will bring new researchers that will require changes to be made in various classrooms and labs.

### **McCord Hall and Business Incubator**

This spring staff will work on the exterior of the building and continuing to improve safety and appearance.

### **Morgan Hall**

Crews will continue to maintain the exterior of the building and look for possible improvements.

### **TVA Greenhouse**

This building will be getting a new fan system since the existing one was installed in 1937 and it has run its course. Crews will continue to maintain the exterior of the building and look for possible improvements.

### **Plant Science Annex B**

Crews members will work on the exterior of the building while looking for improvements to the appearance and continuing to provide a safe working environment.

### **Biosystems Engineering & Environmental Sciences Lab and Office**

Crew members will work on the exterior of the building and continuing to improve the appearance and safety for all students, staff, and visitors. We continue to convert to T8 ballasts for energy efficiency.

### **Butler and CRC - Bioenergy Science**

Crews will work on the exterior to maintain safety and appearance.

### **CRC – Material Science**

Interior painting will be completed.

### **Crops Genetic Lab**

Crew members will paint window frames and the exterior stairwell to improve the appearance of the building.

### **Ellington Plant Sciences**

Staff will work on the exterior of the building and continuing to improve the appearance and safety for all students, staff, and visitors.

### **JIAMS**

Crew members will get everyone settled into offices, classrooms, and labs.

### **Racheff**

Crew members will work with the greenhouse manager to improve the workings of the greenhouse.

### **Publications & Services, Plant Propagation and Plant Biotech**

Staff will work on the exterior of the building and continuing to improve safety and appearance.

### **Kingston Pike**

During the spring semester crews will work on the interior and exterior of the building and continuing to improve the appearance and safety for all students, staff, and visitors.

### **Environment & Landscape**

Crews will work on the interior of the building to improve the working environment for staff and students.



THE UNIVERSITY OF  
**TENNESSEE**  
KNOXVILLE

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FACILITIES SERVICES

**Facilities Services Department**

2233 Volunteer Boulevard  
Knoxville, TN 37996

Phone: 865-974-2178

Fax: 865-974-7786

Email: [admin@fs.utk.edu](mailto:admin@fs.utk.edu)

Web site: [fs.utk.edu](http://fs.utk.edu)