

November/December
2016

*Facilities Management
Monthly Report*



Delivering The Experience



Western Kentucky University

THE DFM TEAM



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Our Mission: Guided by our shared value, each one of us is fully empowered to consistently exceed the expectations of the university to insure a safe, clean and stimulating learning, working and living environment for all involved. To this end, we will provide the most efficient and effective routine and preventative maintenance services needed to support the educational goals of Western Kentucky University.



THE INTERACTIVE COMMUNITY of ARBORETA



2016 Monthly report

Training & Development

Training:



- ◆ 2016 November Monthly Report Training & Development
- ◆ Training:
- ◆ Safety New Hire Orientations
- ◆ Method of the Week/ Custodial weekly topics
- ◆ Weekly Safety Message shared
- ◆ Monthly Training: Back Safety
- ◆ Monthly Training: Spill Prevention Control and Countermeasure
- ◆ Monthly Safety Inspections Complete
- ◆ Electrician CEU Training
- ◆ Trainer Certification class for Environmental Service Attendants (ESAs)
- ◆ Breeze Training



Summary of Training Hours for November:

Summary:

| Training Course | # of Participants | # of hours | Total Training hours |
|--------------------------|-------------------|------------|----------------------|
| Monthly Safety Training | 132 | .5 | 66 |
| Mold Awareness | 29 | .5 | 14 |
| New Hire Asbestos | 18 | 2 | 36 |
| New Hire Fire Prevention | 18 | 1 | 18 |
| Weekly Safety Msg | 297 | .25 | 74 |
| Trainer Certification | 9 | 2 | 18 |
| Electrical CEU Training | 11 | 6 | 66 |
| Breeze Training | 7 | 4.5 | 31 |
| Breeze Training | 8 | 2 | 16 |

Total Number Training Hours for the month: 349 hours

Summary of Training Hours for December:

Summary:

| Training Course | # of Participants | # of hours | Total Training hours |
|-------------------------|-------------------|------------|----------------------|
| Monthly Safety Training | 181 | .5 | 90 |

Total Number Training Hours for the month: 90 hours



Work Order Statistics

*Overall Routine
Work Order
Completion Rate*



87.1



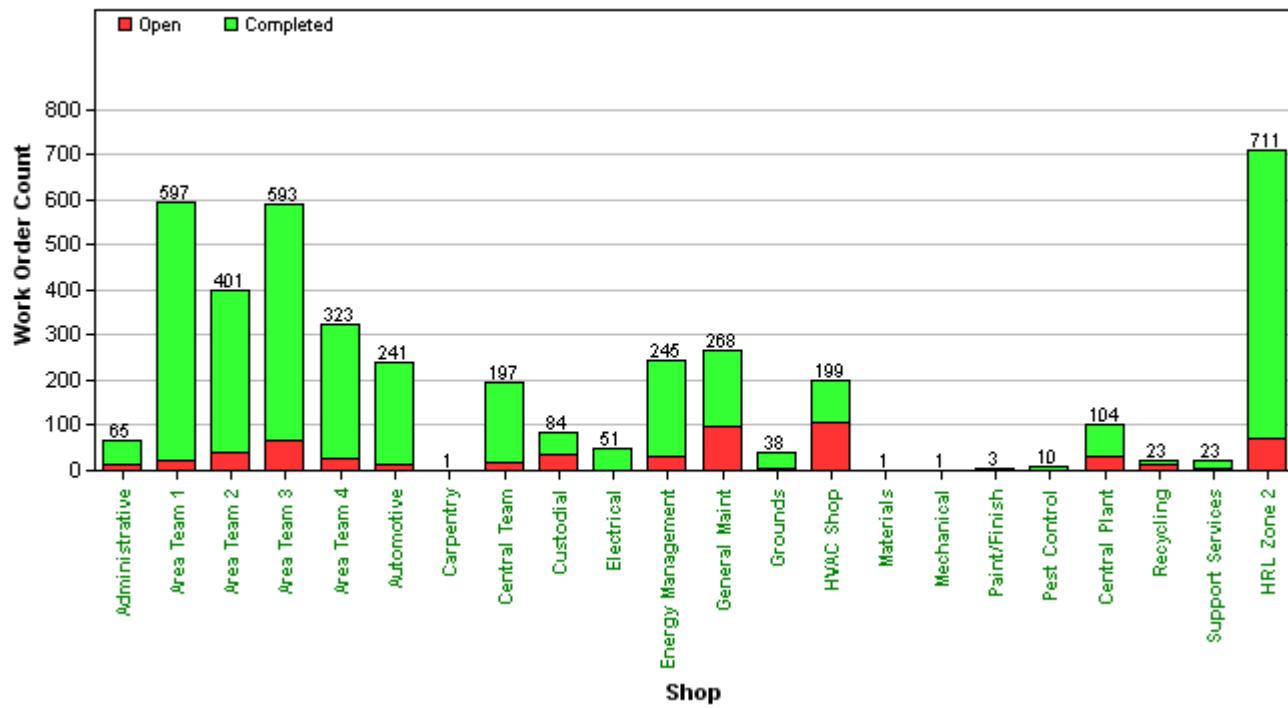
Report Criteria

Report Period is between '11/01/2016' AND '12/19/2016'

Historic Status of Work Orders Received

| Priority | Received | Open | | Completed | |
|------------------------|-------------|------------|--------------|-------------|--------------|
| | | # | % | # | % |
| (All Other Priorities) | 76 | 11 | 14.5 | 65 | 85.5 |
| Deferred | 0 | 0 | 0.0 | 0 | 0.0 |
| Emergency | 0 | 0 | 0.0 | 0 | 0.0 |
| Low | 57 | 1 | 1.8 | 56 | 98.2 |
| PM-Monthly | 534 | 126 | 23.6 | 408 | 76.4 |
| PM-Weekly | 81 | 5 | 6.2 | 76 | 93.8 |
| Project | 21 | 5 | 23.8 | 16 | 76.2 |
| Routine | 3376 | 434 | 12.9 | 2942 | 87.1 |
| Safety Issue | 1 | 1 | 100.0 | 0 | 0.0 |
| Special Event | 33 | 5 | 15.2 | 28 | 84.8 |
| Urgent | 0 | 0 | 0.0 | 0 | 0.0 |
| Total: | 4179 | 588 | 14.1% | 3591 | 85.9% |

Historic Status of Work Orders Received



Driving Performance

Plant Operations:

- ◆ The successful application and management of a water treatment program for the cooling towers, hot, and cold closed loops in the buildings is critical to the longevity of equipment and piping systems. So often water treatment is an overlooked part of a maintenance program leading to inefficient chiller operation and premature failure of piping systems due to corrosion. Water treatment can also be very expensive program when chemical additions are not well monitored and properly adjusted. For over 11 years we have partnered with Chemtreat Incorporated to achieve "Excellent" results with minimal corrosion while keeping treatment costs 40% to 50% lower than the previous vendor of 12 years ago. Corrosion rates are determined by measuring the weight loss of sacrificial coupons inserted into flow of water in the systems. Below are mild steel corrosion rates for Wetherby and Kentucky Buildings and applicable corrosion chart "Standards" published by Association of Water Technologies.

| Analysis | WAB | KY BLDG |
|------------------------|------------|------------|
| Specimen Number | 181804 | 181803 |
| Specimen Type | Mild Steel | Mild Steel |
| Date Installed | 06/13/16 | 06/13/16 |
| Date Removed | 10/17/16 | 10/17/16 |
| Exposure Period (days) | 126 | 126 |
| Initial Weight (g) | 8.4057 | 8.5124 |
| Final Weight (g) | 8.2802 | 8.4823 |
| Weight Loss (g) | 0.1255 | 0.0301 |
| Corrosion Rate (mpy) | 1.0 | 0.2 |

Classification of Corrosion Rates for Open Recirculating Cooling Water Systems (Corrosion Rates, mpy)

| Description | Carbon Steel | Copper Alloys |
|-------------------------|-------------------------|---------------------------|
| Negligible or Excellent | Less than or equal to 1 | Less than or equal to 0.1 |
| Mild or Very Good | 1 to 3 | 0.1 to 0.25 |
| Good | 3 to 5 | 0.25 to 0.35 |
| Moderate to Fair | 5 to 8 | 0.35 to 0.5 |
| Poor | 8 to 10 | 0.5 to 1 |
| Very Poor to Severe | >10 | >1 |

- ◆ Critical needs projects are being finalized for funding in 2017. A second phase of control system updates for Ivan Wilson Fine Arts Center will complete the replacement of obsolete pneumatic controls and allow individual air handler control that currently does not exist, increasing overall energy efficiency. Phase 1 is presently underway and will be complete in January.

Plant Operations:

- ◆ Electrical consumption increased 9.56% in September of 2016 compared to the same period in 2015. Cost increased by 8.95% or \$31,823. KW demand increased by 5.53%. There were 71 heating degree days a decrease of 61% and there were 93 cooling degree days, for an increase of 181.8% over 2015. The additional cooling and chiller operation likely contributed heavily to the increase in electrical load.
- ◆ A project to replace the chiller and make-up air handler at Jones Jaggers began this month. The new, York air cooled scroll machine will replace a 25 year old reciprocating R-22 machine that has become obsolete. The chiller has been set in place and is currently being piped. The air handler has also become challenging to maintain as it has been in service for 47 years. The new air handler is on site and will be placed in early December. A cooling section has been incorporated into the new air handler which will help to reduce humidity inside the building during the summer. The building has had ongoing issues with sporadic mold growth the past two summers which should be reduced or eliminated with the air handler upgrade.
- ◆ The Central Heating Plant was brought online this month and “heating season” has officially begun. Steam traps have been serviced, and condensate pumps have been tested campus wide. A replacement steam to hot water converter project at Garrett is now complete, inspected, and ready for service. Condensate from the heater was dumped last season due to leaking tubes. Several underground steam and condensate piping leaks were addressed this summer that should improve the operating efficiency of the plant. Piping and valves located in seven manholes were re-insulated.
- ◆ Building schedules are being developed for the upcoming Christmas Break. This year will be much different as housekeeping staff and grounds staff will be working except for the actual Federal holidays. The temperature setbacks that have been a long standing tradition since 2009 will be phased in as cleaning and floor maintenance projects rotate from building to building.

Driving Performance

Environmental Services:

- ◆ List has been compiled and given to Dale for the winter projects and where we will be and where we will need the heat turned on.
- ◆ Working with Staples to finalize the bilingual training materials.
- ◆ Logo torpedo trash cans have been ordered and will be placed in Smith stadium. 50 Thrash cans where placed throughout Smith stadium. We have received some very positive feedback.
- ◆ Training certification for all supervisors and team leaders is going well. Tammy W. has done a great job on working with Tim to certify our teams. Next step is to certify ESA and make them qualified trainers.
- ◆ Currently requested from Sodexo Sed de Saber, it is a language based training that will assist with communication.
- ◆ All supervisors are clocking in and out for their lunches. The team is aware of the importance of raising our average. All supervisors have been trained on how to override and to be at the time clock to assist with any clocking issues.
- ◆ Gerald and Richard are meeting Monday to discuss where to put the 5 new time clocks and how to implement the role out of this.
- ◆ Quality Service training will take on a new facet with the implementation of Breeze software. Supervisors will be able to use a tablet to go on location and rate individual rooms, floors, and buildings. The entire campus has been integrated into the software.
- ◆ A new appraisal template will be used and managers will focus on creating goals and objectives that will take some effort among all staff members to achieve. Much improvement is expected in creating goals and using the template for effective career building for all of our employees.

- ◆ Leslie has translated all job cards in Spanish. She is currently doing morning huddles and spending time coaching, training and developing. Her focus has been building relationships with the building coordinator's and the ESA's.
- ◆ We currently have 32 Hispanic ESA's. We will need to look at assistance for Leslie as we grow in this area.
- ◆ Patty Alexander is spending a lot of time assisting Leslie in training.
- ◆ Managers are hosting weekly supervisors meetings to better focus our efforts on daily needs.
- ◆ As we begin project work and detail cleaning efforts following the end of the fall semester, a renewed focus on teaching from our supervisors, team leaders and key personnel will be jump started.
- ◆ Trainers from 3M Corporation will be in Bowling Green on Monday, December 5 to assist key staff members in applying and maintaining floor finish for terrazzo flooring. We look to re-coat the entire first floor lobby at DSU at Christmas. We will also invest significant time in training staff to maintain the finish once applied.

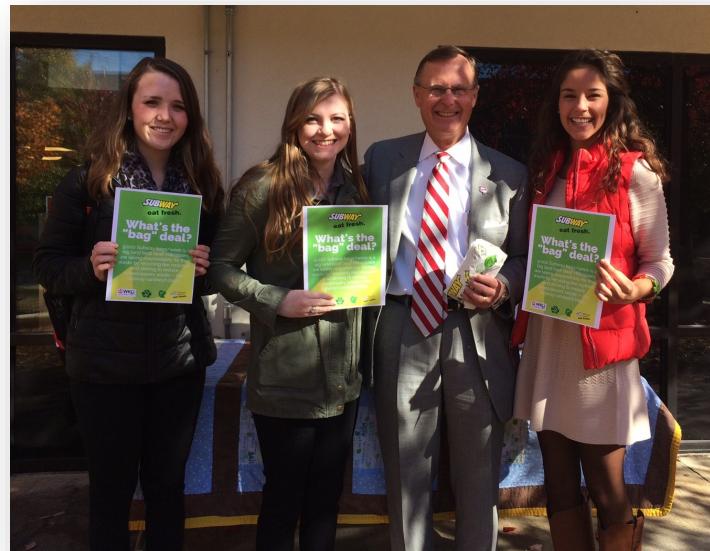


SURPLUS and RECYCLING



Recycling plastics, cardboard, and paper to raise our Recycling Rate is important, but we're chipping away at an even bigger goal—reducing the total waste we generate at WKU by not bringing it to campus in the first place. Because so much of the waste we generate is related to food and its packaging, WKU Resource Conservation, the Office of Sustainability, and the Student Sustainability Committee have been strategizing and planning with Dining Services to reduce the amount of waste we bring onto campus. This fall, we've implemented two major initiatives that will move us closer to our goal:

1. **Reusable Container Program:** Fresh Foods generates 1500 styrofoam to-go containers every week, so in efforts to reduce this waste, Fresh Foods implemented the Reusable Container Program in October, 2016.
2. **Bagless becomes Default:** Did you know that WKU's two Subway locations generate an average of 9,000 sandwich bags each week? As these single-use bags are often unnecessary when carrying only one sandwich, we have worked with Dining Services to make the default option, "no bag." Customers may have a bag if they would prefer, but it is no longer the default option. Dr. Ransdell stopped in to show his support of Dining Service's newest initiative to reduce waste at WKU. (pic attached)
3. **Styrofoam-Free Campus:** WKU's Student Government Association passed legislation in support of the removal of styrofoam from all WKU locations by 2020.
4. **Waste Diversion was a success in October, as well.**
5. **93,922 lbs. of recyclable materials were diverted from the landfill throughout October. This is up 34% from 62,215 lbs. that was recycled in October last year.**
6. **Monthly Recycling Rate (October): 17.65 (up from 12.18% in October last year)**





Completed Projects:

Maintenance Projects

- ◆ Our team continued to go through buildings and fix problems as they arise.
- ◆ Completed the changeover in all residence halls from cooling to heat.
- ◆ Assisted in the main steam line repair outside of Bemis.
- ◆ Assisted the temporary heat exchanger install at North Hall.
- ◆ Repaired the bad cabinet bottom and doors in the director apartment of Bates.
- ◆ Our team repaired a broken closet in Gilbert Hall with the help of the carpenter shop.
- ◆ Inspected all AHU units on the roofs of the directional for their shutdown sequence in freezing temps. This ensures all units are working correctly and the outside dampers are closing to prevent any freezing.
- ◆ Completed several leak repairs in Bemis; 7th floor recirc line, 4th floor domestic hot water line and 3rd floor domestic cold line.

Housekeeping projects:

- ◆ Cleaned the carpet on all floors in Rodes.
- ◆ Able to do some project work and scrub all the bathroom floors at Gilbert.
- ◆ Working on getting team leaders and supervisors trained as a certified ESA trainer.
- ◆ We have been working to standardize all the ESA carts.
- ◆ We have been interviewing and trying to fill open positions.



List of Upcoming Projects for your area:

We have planned the winter break projects for HRL and have all supplies here and ready.

We will be detail cleaning restrooms and scrubbing and waxing floors in various buildings.

Also we will be cleaning carpets at various buildings.

We will oversee the installation of new soap dispensers and solution centers in various buildings.

Contractors are removing all hallway carpets at PFT and replacing with centiva flooring.

Contractor will be replacing a transformer at Keen hall during the break.

Long-Term Expectations: We currently have our winter break projects planned and supplies ordered. We are planning to clean coils in Minton Keen and Rodes, and change air filters in the bedrooms of all buildings. We are planning to do a lot of waxing, restroom cleaning, carpet cleaning and will have a full list to our Directors.

Innovative Solutions: We have had training on the Breeze electronic house-keeping program on October 15th 16th 17th. We are looking at some new house-keeping equipment, an Ultra compact upright auto scrubber and a Dry foam carpet care system for spotting carpets. We will do some demos in the upcom- ing weeks and see if any would work with our budgets. Rodney Hull and Richard Cowan attended the ISSA conference and seen some new innovation. The ro- bots that vacuum carpet and scrub the floors on their own after programing was a big draw at the show. We have had a demonstration on the intella bots that clean and scrub floors and vacuum carpets. We are checking pricing cur- rently and to see if they are a fit for any buildings.

Customer Focus: We have started out Q&A program inspecting housekeeping areas each week. We have also started our maintenance walks in mechanical rooms and will report findings to out Directors. We are looking at general repair and safety issues. A report will be sent to the Associate Director of Housing for review. We are having daily huddles to help with communication. We are getting Team Leaders and Supervisors housekeeping training so they can re- ceive a certification. We have an onboarding training program for new hires we are implementing.

Enhanced Wellbeing: We have awarded Karen Wingo with a 15 year service award. On November 10th we have held an employee appreciation lunch and dessert competition. Richard Cowan and Tim Salloum we the judges. Candi Boehmer won most creative, Eddie Dickerson won best all around and Crystal Anderson People's choice.

Driving Performance: With additional trainings planned we hope to improve custodial and maintenance customer service. We have had mold awareness training with Anita Britt on how to identify and report findings.

Strategic Vision: Vision—look into the future We will be looking at ways to save money in any areas as we are always challenged by budget cuts. We will partner with E&G and look at some other misc. custodial supplies to see if we can save money using our buying power. We will look for any innovation and new products to better our housekeepers and maintenance. We are working with E&G side to make custodial operations more uniform across both depart- ments.

Completed Projects

- Completed air handler PM's at Jones Jaggers, Mass Media, Service Supply, Baseball, Softball, Diddle, Fine Arts, and Intramural
- HRL emergency generator PM's were completed
- Replaced gaskets and valve actuator on steam/hot water convertor at Grise
- Repaired broken motor mounts Cherry Hall air handler
- Swapped buildings over to steam
- Replaced JCI network engine batteries Adams Whitaker, Gilbert, Facilities, Helm, TCCW, & Gatton
- Replaced #1 lighting Energy Manager
- Energy Management completed 106 Work Orders/PM
- Energy Management replaced failed Network Engine at South Campus
- Replaced sixty feet of failed underground steam line serving Bemis Hall
- Replaced mixed air sensor DSU air handler #201
- Started-up and programmed digital hot water convertor control valves at Gordon Wilson, Kentucky, EST, & Cherry
- Changed oil and filter #2 Carrier chiller at FAC based on oil sample results
- Replaced several HID wall mounted lights at South Campus with LED
- Replaced hot water tank serving biology labs at EBS
- Assisting maintenance with E&G generator PM's
- Completed digital controls upgrades to AHU's #1, #2, #3, and #4 at FAC
- Completed demolition of air handler, chiller, cooling tower, & MCC at Jones Jaggers
- Replaced blower motor on RTU at Student Publications

Completed containment pan replacement at Alive Center

Area Team ONE:

Completed Projects:

- ◆ Assisted Electronic shop on E&G troubles WO 155831.
- ◆ Assisted EHS on molded tile removal in Tate Page Hall room 216B.
- ◆ Rebuilt electrical supply connection to the trash compactor at KC loading dock area WO 155831.
- ◆ Replaced all cast iron piping above the ceiling in room 118B, this was from the kitchen above this area WO 154768.
- ◆ Replaced kitchen sink baskets in the 3 compartment soaking sink at KC catering kitchen.
- ◆ Unstopped the kitchen main drain line that leads to the grease trap at KC catering kitchen WO 156621.
- ◆ Unstopped the urinal sanitary sewer main in GRH 3rd floor restroom.
- ◆ Installed new electrical circuit for new HVAC pump at Academic Complex room 149A, WO146295.
- ◆ Completed several S.R.'s for basketball and football: S.R. 1580, S.R. 1499, S.R. 1498, S.R. 1579, and S.R. 1587.
- ◆ Installed new circuit board on lighting panel inside auditorium at MMTH

Completed Projects cont.

Area Team TWO:

Completed Projects:

- ◆ Installed new lighting at the back dock area of DSU, near the compactors.
- ◆ Oil leak on the PMT at Snell Hall. We are continuing to monitor the oil level and outside and inside temperatures.
- ◆ Completed outside light work orders at Baseball Complex, Softball Complex, DSU, and LTSW.
- ◆ Replaced a water heater at Grise Hall, 2nd floor Mechanical Room.
- ◆ Installed new LED lights in the Special Events office in the basement of SSB.
- ◆ Power outage at Dogwood substation affecting Grise Hall. BGMU made repairs. Still discussing permanent repairs.
- ◆ Worked with Rick's Septic on steam jetting the drain line at Diddle Arena from the grease trap to the main kitchen.
- ◆ Starting to winterize some of the buildings in Area #2: Baseball, Softball/Soccer, Track, Smith Stadium.
- ◆ Replaced a 50A circuit at Chik-Fil-A in DSU due to a pressure fryer failure.

Area Team THREE:

Completed Projects:

- ◆ Ag Expo – Installed and repaired exhaust fan and new pulley.
- ◆ Van Meter - Drained and winterized fountains
- ◆ Yard Sprinkler - system drained and winterized.
- ◆ Gordon Wilson- working on leaks and lighting.
- ◆ FAC - drained fountain and winterized.
- ◆ Gatton - Installed new seal in hot water cir pump.
- ◆ Cherry Hall - cleaned and camera storm drains still in progress.
- ◆ FAC - repaired condenser pump.
- ◆ FAC - Installed new 30 gal water heater.

Area Team FOUR:

Completed Projects:

- ◆ Replaced blower motor on gas heater in AG greenhouse behind EST
- ◆ Replaced more water stained ceiling tiles in Snell Hall 4101
- ◆ Unstopped window well drains at Kentucky Building
- ◆ Replaced industrial hot water boiler with water heater at EBS
- ◆ Repaired leaking copper water lines for hot water and cleaned up mold at Popeyes
- ◆ Replaced anode rod in water heater at 1702 Normal Dr.

Nights and Weekends

Completed Projects:

- ◆ Conducting environmental/dew point monitoring in the following locations: MH Sub-basement, TPH 3rd floor center core, TPH 427C, TPH337, TPH 109, JJ 109, JJ 109A, JJ 125, JJ 111 JJ 111A, Smith Stadium West Football Locker room, GWH 2nd floor dance room, GWH 3rd floor Dean's office, TCCW 433, TCCW 4th Floor ceiling, Gatton 303, SSB Events Office, Cravens Basement, Snell 4107, Rhodes 507.
- ◆ Emptied dehumidifiers daily in TPH on the 2nd and 3rd floors.
- ◆ Kept a check on campus pole lighting.
- ◆ Campus exterior lighting audit.
- ◆ Fine Arts 114, we changed all of the ceiling tile and cleaned vent.
- ◆ TCCW replaced stained tile with PVC tile mainly on the 3rd floor.

Electronics:

Completed Projects:

- ◆ Shop SDS and flammables cabinet – completed
- ◆ Gatton Academy emergency exits repaired and secured
- ◆ DFM grounds cage access completed and RS485 extended for future stock room access
- ◆ Cherry Hall ballast repair and remote switch installed for rope lighting access without cupola entry
- ◆ Cherry Hall switch installation to bypass the 4 cupola bell speaker horns for hearing protection
- ◆ CAM – Siemens network fiber trouble and programming issues resolved
- ◆ CAM – Simplex network upgrade to 7 panels finalized
- ◆ CAM – completed DST correction to multiple buildings
- ◆ Maintained campus wide support and service for electronic systems

GIS:

Completed Projects:

- ◆ Completed all utility locates
- ◆ Completed all map requests
- ◆ Checked on and took pictures of Ogden College Hall and Creason Parking Garage construction sites
- ◆ GPS new utility features at Confucius Institute
- ◆ GPS new utility features at Ogden College Hall and various utility checks around campus
- ◆ Updated utility lines and features in GIS database
- ◆ Updated GPS software on computers
- ◆ Researched best practices to maintain GIS data
- ◆ Continued modeling storm water and sanitary sewer utility features in 3D
- ◆ Started to refresh and self-learn LiDAR applications and spatial analysis
- ◆ Water bottle fill station inventory and tagged missing water fountains in maintenance system

The Sodexo Experience.

- ◆ Team huddles held on a weekly basis to further develop and nourish employee's job satisfaction and feeling connected and valued
- ◆ Safety Training provided to all staff
- ◆ Monthly Department meetings held
- ◆ 15.00 Holiday Gift cards given to all employees from Sodexo
- ◆ HR Holiday brunch held for DFM staff/ Sodexo contributed \$500 to this celebration.
- ◆ Holiday celebrations held within variety of our departments.

Quality of Life Services





OUR DFM MISSION

Guided by our shared value, each one of us is fully empowered to consistently exceed the expectations of the university to insure a safe, clean and stimulating learning, working and living environment for all involved. To this end, we will provide the most efficient and effective routine and preventative maintenance services needed to support the educational goals of **Western Kentucky University**.

