Annual Report of Operations

OKLAHOMA STATE UNIVERSITY
FACILITIES MANAGEMENT
The 2018 fiscal year was a time of continued improvement and advancing closer to the achievement of our shared vision of becoming an organization of excellence at Facilities Management (FM).

The past year contained many key accomplishments; the grand opening of the New Central Plant, completion of the Campus Facility Condition Assessment, celebration of a Decade of Energy Savings, Certified Healthy Department Certification and rollout of the FM Leadership Certificate Program, a new career development program for our employees.

Facilities Management understands that we can contribute in meaningful, measureable ways to the mission of the University. We utilize Key Performance Metrics, survey feedback and collaborating with campus departments to ensure we are achieving goals important to both OSU and student success.

Within this document, we are pleased to share our accomplishments. The FM employees should be very proud of the many accomplishments they achieved in FY 2018. The Report of Operations highlights the key achievements to bring awareness of the valuable service FM contributes to the success of Oklahoma State University.

Ron Tarbutton

Chief Facilities Officer
I. About OSU Facilities Management

OSU Facilities Management (FM) is comprised of six departments, each providing a unique set of services for OSU. The chart below identifies the services provided within each of the six departments. FM is responsible for the maintenance and repairs for the OSU General University and Auxiliaries, which encompasses in excess of 8 million gross square feet and landscape services for over 800 plus acres. Please refer to the *FM Guide to Services* located at [fm.okstate.edu](http://fm.okstate.edu) for additional detailed descriptions of the services FM provides to the OSU General University.

### Mission Statement

We serve students, faculty, staff, and the community by creating and maintaining a safe and inspiring campus environment to support the OSU mission of education, research and outreach.

### Vision Statement

OSU Facilities Management will be nationally recognized for providing excellence in the management of educational facilities.
Facilities Management Organization Chart

Ron Tarbutton
Chief Facilities Officer

Jeff Sweeden
Director, Operations and Maintenance

Craig Spencer
Director, Energy Services

Gabe Dreiling
Director, Construction and Contract Services

Renee Smith
Director, Business Operations

Steve Dobbs
Director, Landscape Services
FM Strategic Plan 2018 – 2022
Strategic Goals

By achieving the these broad strategic goals, FM will successfully achieve the FM Mission and Vision for the organization to become recognized for providing excellence in the management of educational facilities.

Goal 1: Customer Focus
- Create a customer-oriented organization focused on building and sustaining relationships that ensure customer needs are understood and acted upon.

Goal 2: Employee Focus
- Cultivate an environment of creativity, growth, knowledge & innovation that generates a workforce that is highly motivated, well trained and effective.

Goal 3: Performance (Service Delivery)
- Assess performance using established standards, information and analysis to evaluate and drive innovation and cost improvements.
- Provide timely, accurate and meaningful communication that creates connectivity and collaboration both internally and externally.
- Develop processes, procedures and technology that will continuously evolve to meet current and future needs to ensure efficient & effective service.

Goal 4: Planning & Financial
- Establish strategic goals, annual operating objectives, and key performance indicators to align the organization to achieve success.
- Demonstrate stewardship by providing efficient and effective services and maintenance of assets and facilities.

Goal 5: Sustainability
- Demonstrate responsible leadership in sustainable and environmentally friendly practices.
Ten Historic Years!

In 2018, OSU President Burns Hargis and First Cowgirl Ann Hargis celebrated their 10th anniversary at OSU. Facilities Management is honored that several contributions made by FM were included in the President’s highlights over the past 10 years.

Energy savings top $5 million; OSU ramps up sustainability efforts
March 06, 2009
OSU has saved more than $5 million as a result of the energy conservation effort it started in June 2007. In addition to its behavioral-based energy conservation initiative, OSU is focusing on sustainability efforts in the areas of climate change, food and recycling, physical plant, green building and transportation. “Our faculty, staff and students are very interested in creating an environment at OSU that is focused on doing what we can to be as green as we can,” said Burns Hargis, OSU President.

OSU rolls out Cowboy boot topiary for commencement
May 04, 2011
As part of its continuing efforts to upgrade and highlight its campus landscape, OSU unveiled a large Cowboy boot topiary at the southwest corner of Theta Pond near the intersection of University and Monroe streets for spring commencement ceremonies. The unique topiary is more than seven feet tall and is a combination of six unique plants that create the textures and designs of a boot and spur. The boot instantly became a popular spot for photographs.

OG&E and OSU partner to add wind power to support the university’s sustainability efforts
December 02, 2011
OG&E and Oklahoma State University announced a 20-year agreement to provide wind power to the Stillwater campus. “As a land-grant university, we have an historic responsibility to lead the way when it comes to using our natural resources wisely and efficiently,” said Burns Hargis, OSU president. “The signing of this agreement with OG&E is part of our overarching sustainability initiative aimed at saving money, reducing carbon emissions and improving efficiency.”

Oklahoma State University surpasses $20 million energy savings milestone
March 02, 2012
OSU has saved more than $20 million through its energy conservation efforts over the last five years. The university announced the savings milestone today during the OSU/A&M Board of Regents meeting in Ardmore. “As a publicly funded land-grant institution it is important Oklahoma State University do all that it can to save money,” said OSU President Burns Hargis. “Because of these savings the university has been able to focus more dollars on academics and enhancing the student’s education experience.”
OSU breaks ground for new Central Plant
September 18, 2015
OSU broke ground for a new 73,000-square-foot Central Plant that will improve efficiency and help the university reduce its environmental footprint. “This new facility’s advanced efficiency equipment will mean more than $400,000 in estimated annual energy savings, and the facility will distribute green energy created by the Cowboy Windfarm for heating and cooling instead of producing the power on campus,” said OSU President Burns Hargis. The facility will open in 2018.

OSU celebrates 10 years of energy savings
January 25, 2018
The university celebrated the 10-year anniversary of its nationally acclaimed Energy Management Program during a Decade of Excellence ceremony. OSU President Burns Hargis congratulated the energy management team, as well as all employees and students, for making the behavior-based energy management program a huge success. Systemwide energy savings from the program are approaching $50 million, with nearly $40 million of that on the OSU Stillwater campus.

OSU Facilities Management receives national award for innovation and effectiveness
July 26, 2017
OSU’s Department of Facilities Management earned the Association of Physical Plant Administrators’ 2017 Effective and Innovative Practices Award for its Next Level Project: A Model for Effective Change. The award recognizes new programs or significant restructuring to existing programs that enhance service delivery, lower costs, increase productivity, improve customer service, generate revenue, or otherwise benefit the educational institution. OSU began the Next Level Project in 2015.
II. FY 2018 Performance of Key Metrics

FM established Key Metrics to ensure alignment of work activities to achieve the FM Strategic Plan.

Work Order Satisfaction Metric

Metric goal is to exceed the APPA average of 4.52 for customer satisfaction. APPA is a recognized leader in facilities management within the educational environments. FM uses APPA Facilities Performance measures as best practice benchmarking guide for continuous improvement.

Customer ratings of “dissatisfied” requires a follow-up by the FM Zone Manager to understand the dissatisfaction, take necessary steps to resolve, and share with employees for learning opportunities.
The Average Days to complete work order phases metric displays the average time FM completes a work order phase based on the priority of the work order.

Metric goal is to achieve work phase completion within the below established priorities.

**Emergency** – Unscheduled corrective activities that require immediate attention to restore a critical piece of equipment whose failure could threaten the safety of personnel or cause damage to other equipment or building systems. **Response Time: Immediate**

**Urgent** – Unscheduled corrective activities where the problem does not pose an immediate safety hazard, but requires a prompt response. **Response Time: 1 workday with completion within 3 workdays.**

**Routine** – Minor day-to-day repair jobs and small, fee-based requests. **Response Time: 7 work days with completion within 20 workdays.**

**Scheduled** – Requests for regularly recurring preventive maintenance actions, event related support, major repairs, minor alterations and renovations. **Response Time: Scheduled.**
Custodial Customer Satisfaction Averages

Extremely Satisfied 6.0
Very Satisfied 5.0
Satisfied 4.0
Dissatisfied 3.0
Very Dissatisfied 2.0
Extremely Dissatisfied 1.0

June July August September October November December January February March April May June

Facilities Management

Capital Project Satisfaction Averages

Extremely Satisfied 6.0
Very Satisfied 5.0
Satisfied 4.0
Dissatisfied 3.0
Very Dissatisfied 2.0
Extremely Dissatisfied 1.0

January July August September October November December January February March April May June

Facilities Management

### Annual FM Customer Satisfaction Survey Metric

<table>
<thead>
<tr>
<th>Year</th>
<th>FM Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>4.4</td>
</tr>
<tr>
<td>2015</td>
<td>4.6</td>
</tr>
<tr>
<td>2016</td>
<td>5.0</td>
</tr>
<tr>
<td>2017</td>
<td>5.1</td>
</tr>
</tbody>
</table>

APPA Scale: 4.518
6 Extremely Satisfied
5 Very Satisfied
4 Satisfied
3 Dissatisfied
2 Very Dissatisfied
1 Extremely Dissatisfied

### Biennial FM Employee Engagement Survey Metric

<table>
<thead>
<tr>
<th>Year</th>
<th>FM Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>4.0</td>
</tr>
<tr>
<td>2015</td>
<td>4.3</td>
</tr>
<tr>
<td>2017</td>
<td>4.3</td>
</tr>
</tbody>
</table>

APPA Scale: 4.23
6 Extremely Satisfied
5 Very Satisfied
4 Satisfied
3 Dissatisfied
2 Very Dissatisfied
1 Extremely Dissatisfied
UMS delivered 165,000 parcels in FY18 with an average on time delivery of 97.6%. For Faculty and Staff, peak months came in August and June. Peak months for Students were January, February, August and September.

Procurement Services tracks customer fill rate to gauge whether the correct parts and part quantities are available upon customer request. By monitoring fill rate and adjusting for improvement, procurement services works to meet the demands of the customer while lowering the cost of inventory.
III. FM Department Highlights

Operations and Maintenance

The Operations and Maintenance (O&M) department is responsible for maintenance, repairs, preventive maintenance, signs, recycle, moves/events, HVAC, asbestos, furniture/upholstery repair, and work control for both the general university and many of the auxiliary organization properties at OSU. Below are some of the key accomplishments over the past fiscal year.

O&M completed many interior maintenance projects in Physical Sciences, Willard Hall, MAER, Griffith Center, University Laundry, Fire Technology Lab Building, North Murray, Wes Watkins Center, General Academic Building, Gundersen, and many others.

O&M Mechanical, Electrical and Plumbing completed many projects including the Hazardous Reaction Lab Boiler replacement, MAER HVAC rooftop units, Noble Research Center Heat Exchanger, Food Processing Steam Boiler, Totusek Arena chiller, and the Chilled Water Pumps at the Library.

Maintenance / Repairs

- Reactive, planned and corrective maintenance - over 38,000 work order phases completed in FY18

Preventive Maintenance

- 35,674 work order phases completed in FY18
- Periodic inspection, lubrication, adjustment, cleaning, and selective part replacement to extend and maximize the reliability, performance, and life cycle of the OSU building systems.
O&M made improvements to our outdoor environment, roads and outdoor lighting. O&M staff painted over 100 fire hydrants, worked with the O’Colly to paint and sign newspaper boxes, power washed obelisks on Monroe and Legacy Walk, updated outdoor way finding signage, performed preventative maintenance on the Chi-O clock and made patio improvements at North Murray and Multimodal Transportation Terminal.

O&M Central Trades, along with OTIS elevator, completed elevator upgrades that improved direct digital controls, fire fighter recall systems, and cab interiors. The elevators completed were located in Journalism and Broadcasting, Seretean Center, General Academic Building, Library, and Life Sciences East.

O&M staff made improvements to the exteriors of our buildings and campus environment by painting, power washing natural stone, and sealing the exterior envelopes. Buildings completed or partially completed this year include Parker Hall, Life Sciences West, Ag Hall, Scott Hall and Scott Parker Wentz Cafeteria.
Business Operations

Business Operations strives to provide exemplary administrative and business support services to all areas of FM and numerous other campus entities through its functional areas.

Energy Leadership Award

The FM Business Operations department strives to be good stewards of all resources. Energy reduction is not only an energy conservation activity but a fiscally responsible activity also.

Business Operations was the first department at Facilities Management to receive the Energy Leadership Award (ELA). This accomplishment demonstrates Business Operations personnel’s active energy awareness and directly supports OSU’s energy reduction goals. Tiffany Munday, Procurement Services Coordinator, spearheaded this effort with help from Madalyn Chambers, Darren Stormont, and Kathy Henderson all serving as Business Operations’ Energy Champions.

Automating for New Employee Success

Facilities Management requires new employees to attend a Facilities Management New Employee Orientation within the first 30 days of hire. This orientation includes safety training, Title IIIV & XI training, and FM specific training. New FM employees also receive a 60-day and 90-day evaluation. To ensure everyone receives the required training and that performance is evaluated in a timely manner, a program was conceptualized and developed by Jenelle Feddersen and Mike Krueger (pictured). By using the new employee hire date to automatically notify proper FM Personnel of the upcoming deadlines, new employees receive the education and guidance necessary for workplace success.

Sample report
“The Right Parts at the Right Time with World Class Accuracy”

With careful attention to inventory accuracy through daily cycle counts and audits, the Procurement Services Warehouse team was able to achieve a 99.9% annual inventory accuracy. The Procurement Services office and warehouse team worked together to reduce on-hand inventory by 21% from FY17 to FY18 through continued inventory evaluation and adjustments.

University Mailing Services (UMS): Staying on Track

To ensure budget adherence and to address potential shortfalls as early as possible, Darren Stormont and Jess Mutschelknaus created a budget tracker tool. By downloading each UMS fund into an Excel Workbook using Banner reports (OSU’s official financial system) and linking the Banner data to a summary page which automatically updates each month, this tracker tool allows UMS to quickly assess the financial condition and make immediate adjustments.

(Budget Tracker Tool using sample data for demonstration purposes)
Energy Services

Energy Services – Energy Management


Figure 1 - Instrumental OSU employees that contributed to the Energy Management Program’s success over the last decade.

Energy Services

- Energy Services staff finished the Central Plant construction, moved in, and began steam and chilled water production out of the new building. Open House April 27.

Figure 2 - Central Plant team members during the Open House celebration.
The Central Plant facility provides office and workspace for 85 of Energy Services 94 person team. It is also where steam for heating and chilled water for cooling the OSU Stillwater campus is produced and distributed into the campus-wide utility infrastructure. The Central Plant was designed with a 50-year vision, and replaces the nearly 70-yr old Power Plant.

**West two-thirds of the building is the Utilities Production Plant:**

- **Chilled water – cooling capacity:**
  - Currently capable of producing 12,000 tons and expandable to 16,000 tons
  - 3900 HP pumps and 750 HP cooling tower fans with variable frequency drives

- **Steam production – heating capacity:**
  - Currently capable of producing 220,000 lbs./hr., and expandable to 280,000 lbs./hr.
  - Heating water loop to serve nearby buildings (NOC)

**East one-third of the building is Admin. & Operational**

- 43 offices
- Conference rooms
- Construction plan archive
- Public observation room Mechanical maint. shop & field equipment storage
- 60-seat General University classroom
- Staff training room, break rooms, and locker rooms

**Design/Construction Timeline and Significant Features:**

- From development of Utilities Master Plan to Central Plant occupancy – less than 5 years
- Tie in to OSU’s academic mission with a 60-seat GU classroom
- Involvement of Energy Services staff in the design and construction of the facility
Landscape Services

Native Corridor Expands thanks to a Green Initiative Student Grant

OSU students Brandon Tidwell, Elisabeth Alder and Sarah Riley approached Facilities Management Landscape Services department in the fall of 2017 with the idea of planting native plants on campus as part of a Green Student Initiative grant. The Green Student Initiative Grants program is overseen by the Student Government Association Sustainability Committee. Students can submit ideas through an application and interview/presentation process for grants to fund their sustainability related initiatives.

The student Native Plant proposal was awarded $3,700 to help provide funds for a new garden north of Life Sciences East. The funds helped with site preparation, irrigation conversion, and plant procurement. The garden was designed by Facilities Management Landscape Services in cooperation with the student grant team.

The garden would be the first garden in phase II of the Native Plant Corridor west of the Library. The Native plant corridor is a landscape project converting turf grass areas to native plants along the east/west sidewalks from Hester to Monroe Street along the north side of the library. The east gardens between ATRC and Engineering North known as Phase I were completed the fall of 2016, also partially funded by a Green Initiative Student Grant.

On April 27 2017, 24 students volunteered to help plant nearly 30 species of native plants and install drip irrigation. FM Landscape Services staff had already installed the sidewalks, repurposed benches and prepped the garden for planting. The new garden planting only took 1 day to complete thanks to the students participation. The Green Initiative grant funded nearly 80% of the overall total project costs. Landscape Services greatly appreciates the student grant and volunteer support of campus beautification.

Before:
This portion of the Native Corridor was made possible by the Oklahoma State University Green Student Initiative Grant. The goal of the Green Student Initiative is to help Oklahoma State University become more environmentally friendly and for students to become more environmentally conscious. The student proposal for phase two included a new seating area, placeholder for future Native American art, a combination of shade and sun native plants, and a planting day including student planting participation.

<table>
<thead>
<tr>
<th>PLANT Common-Trade Name</th>
<th>Botanical-Cultivar-Variety-Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prairie Dropseed</td>
<td>Sporobolus heterolepis</td>
</tr>
<tr>
<td>Prairie Dropseed</td>
<td>Sporobolus heterolepis 'Tara'</td>
</tr>
<tr>
<td>Penstemon</td>
<td>Dark Towers</td>
</tr>
<tr>
<td>Sweetspire Scendlandia</td>
<td>Rea virginica Sweetspire</td>
</tr>
<tr>
<td>obedient Plant</td>
<td>Physostegia virginiana 'Pink Manners'</td>
</tr>
<tr>
<td>Oakleaf Hydrangea</td>
<td>Hydrangea quercifolia 'Gatsby Pink'</td>
</tr>
<tr>
<td>Jacob's ladder</td>
<td>Polemonium reptans 'Touch of Class'</td>
</tr>
<tr>
<td>Culver's Root</td>
<td>Veronicastrum virginicum</td>
</tr>
<tr>
<td>White-top Star Grass</td>
<td>Dichromena latifolia</td>
</tr>
<tr>
<td>Sideoats 'El Reno'</td>
<td>Bouteloua curtipendula</td>
</tr>
<tr>
<td>Wichita Mountains Goldenrod</td>
<td>Solidago 'Wichita Mountains'</td>
</tr>
<tr>
<td>Plumetastic Pink Muhly Grass</td>
<td>Muhlenbergia capillaris 'Ivine'</td>
</tr>
<tr>
<td>Mountain Marigold</td>
<td>Tagetes lemonii</td>
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<tr>
<td>Southern Blackhaw</td>
<td>Viburnum rufidulum</td>
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<tr>
<td>Frog Fruit</td>
<td>Physocarpus opulifolius 'jeffam'</td>
</tr>
<tr>
<td>Amber Jubilee Ninebark</td>
<td>Physocarpus opulifolius 'jeffam'</td>
</tr>
<tr>
<td>Rattlesnake Master</td>
<td>Eryngium vescifolium</td>
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<tr>
<td>Pitcher Sage</td>
<td>Salvia azure</td>
</tr>
<tr>
<td>Grey Owl Juniper</td>
<td>Juniperus virginiana 'Grey Owl'</td>
</tr>
<tr>
<td>Pearl Glam Beautyberry</td>
<td>Callicarpa</td>
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<td>Elbow Bush</td>
<td>Forestera pubescens</td>
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<tr>
<td>Autumn Sage Apricot</td>
<td>Salvia gregii 'Apricot'</td>
</tr>
<tr>
<td>Baby Joe Joe Pye Weed</td>
<td>Eupatorium dubium Baby Joe</td>
</tr>
<tr>
<td>Joe pye weed</td>
<td>Eupatorium fistulosum</td>
</tr>
<tr>
<td>Frostweed</td>
<td>Verbesina virginica</td>
</tr>
<tr>
<td>False Indigo</td>
<td>Baptisia 'Brownie Points'</td>
</tr>
<tr>
<td>Prairie Glow</td>
<td>Rudbeckia triloba</td>
</tr>
<tr>
<td>Lead Plant</td>
<td>Amorpha canescens</td>
</tr>
</tbody>
</table>
Construction & Contract Services

The CCS department is comprised of the In-House Construction team and the Project Management Team. In-House Construction is comprised of a multi-disciplined construction team that work on projects ranging from networking to demolition to construction to full remodels.

Agricultural Hall Reverse Osmosis Water System Replacement/Upgrade Project:

The existing undersized and out dated RO system in Ag Hall was well past its expected lifespan. The Soil Testing Labs depend on the RO system to provide them with the quality and quantity they need to do the extractions from soil samples and most importantly, clean their equipment.

During install, the old existing system failed one day before we tied in the new RO system. The 30+ year old piping in the building presented multiple challenges, but we were able to pressure up the new system to get all labs adequate pressure and quantities that they need.

The new system is operating at approximately 4 gallons per minute, versus the original system that provided between .5 – 1 gallon per minute. *Anticipated Construction Cost $80k+ / Actual Construction Cost $59k

Campus Facility Condition Assessment Project

Facilities Management staff worked with ISES Corporation to complete the Campus Facility Condition Assessment (FCA) and evaluated 49 general university buildings, which consisted of 3,534,586 gsf. The FCA provided a comprehensive assessment of physical assets, quantitative analysis of the condition of the buildings, and a long-term facilities renewal program designed to be flexible and adapt to changing conditions. Additionally, a database was compiled of the physical equipment for establishing levels of preventative and predictive maintenance, and enhancing long term capital planning. The data can be sorted numerous ways, generating investment priorities based on building, system classification, need category and more. At the completion of the assessment, electronic and bound copies of the asset report for each building was provided, which included an overall summary of each facility in charts and graphs, methodology description, various data sorts, tables and graphs, such as a total ten year facility renewal costs, renewal needs by system, renewal plan, project list by classification and category, lifecycle component inventory, and photographs.
“Remember the 4” Memorial Project

The Remember the 4 Memorial was designed by Beck Design at no cost to the university and was constructed by Nabholz Construction whom also donated their management services. The memorial site is composed of four illuminated portraits including a brief statement about each person as well as four granite benches with LED under lighting. As stated on the centrally located plaque, “The memorial was constructed as a permanent reminder of those we lost, the lives they lived, and the legacies they left behind” and was completed in November of 2017. Which this project was one of the most challenging for CCS to manage, it also came with the greatest reward. Hearing the stories of each person and their families during the unveiling event as well as seeing the community’s response was truly memorable. CCS is humbled and honored to have been a part of this project.

Richmond Hills Project

Richmond Hills Project: This project started out with a 100K budget and time crunch. Due to the added scope, this quickly went to 200k budget. This kicked off with the demolition of several rooms and mechanical equipment to open the space. This project took 2 months to complete and after completion, we delivered the project $45k under budget.
Administration & Human Resources

2018 Certified Healthy Department

FM received recognition as a Certified Healthy Department by Oklahoma State University’s Department of Wellness for the second year in a row. FM is committed to promoting America’s Healthiest Campus culture for an overall healthier OSU. We demonstrated this with the implementation of employee initiatives with a focus on improvements to the FM work environment. The following are a few of these initiatives: a new system for an employee to provide a review of their immediate supervisor’s performance, teambuilding activities such as the Facilities Challenge, and participating in the annual National Campus Safety Awareness Month. FM departments participating in the FM Work Readiness Program gathered to celebrate the presentation of the award.

**FM Leadership Certificate – New Career Development Program**

OSU Facilities Management partnered with OSU Training Services to offer the Facilities Management Leadership Certificate Program designed to develop leadership skills. The curriculum includes four required courses such as *7 Habits of Highly Effective People*, *HR Boot Camp* and *Crucial Conversations* and the completion of five elective courses. The elective courses allow the training participant to choose a course that meets their individual professional development needs. The elective courses range from topics on time management to emotional intelligence and will change throughout the calendar year to provide a range of options. The elective courses also include online, self-paced courses. Participants have three years to complete the nine courses. There are currently 25 employees enrolled in the program.
“We Ride Together, We Win Together”
“We Ride Together, We Win Together”
Facilities Management: (405-744-7154)
fm.okstate.edu
Customer work request portal: workorder.okstate.edu/Customer