Strategic Decisions & Staff Collaboration Highlight the 2009 Award for Excellence Winners

APPAs highest institutional honor, the Award for Excellence (AFE) in Facilities Management, recognizes those educational institutions whose facilities management organizations demonstrate quality in overall operations and effectiveness. Fewer than 40 institutions have received this distinct honor.

The Award for Excellence is based on a set of criteria, which include:
- Leadership
- Strategic and Operational Planning
- Customer Focus
- Information and Analysis
- Development and Management of Human Resources
- Process Management
- Performance Results

Evaluation for the award consists of two parts: a self-evaluation addressing specific, stringent criteria, and a site visit by a team from APPAs Professional Affairs Committee to confirm the accuracy of the self-assessment. Applying for and receiving the AFE is no small task for an institution. It takes teamwork from everyone within the facilities organization and requires coordination and motivation from the top levels of leadership.

This year, four schools applied for the award, and the Professional Affairs Committee selected three for recognition. View past winners at www.appa.org/recognition/excelwinners.cfm.
The Physical Plant Team of Philadelphia University

Philadelphia University (formerly Philadelphia College of Textiles and Science), founded in 1884, is a private university with 3,100 part- and full-time students. The university offers more than 50 undergraduate and graduate degree programs within the architecture, design, business, engineering, textiles, fashion, as well as the science and health fields.

Physical Plant is proud to be responsible for the basic operation and managed care of the 52 buildings on the university’s 100-acre main campus. Our intention toward comprehensive stewardship allows our historic 100-plus-year-old mansions to be enjoyed alongside more recently constructed modern and architecturally award-winning academic buildings. The facilities inventory tallies just over one million square feet, with buildings dating from 1779 to 2006.

In 2002, the university invited the APPA Facilities Management Evaluation Program (FMEP) process onto our campus. We accepted the 40 recommendations of the final report and formulated a departmental strategic plan to progress the facilities function of the university in alignment of those recommendations and APPA standards.

Steady progress has been made, and while we recognized that a goal of “showplace facility” was beyond the institution’s economic priorities, we believed our current performance aligned well with the qualifications of APPA’s Award for Excellence and thus submitted our application.

PHYSICAL PLANT OVERVIEW

Philadelphia University’s Physical Plant Department consists of coordinated teams of skilled professionals that work around the clock to support the department’s mission of customer satisfaction and facilities stewardship. This overview appears right on our Web page and is intended to provide our customers with an explanation of how these services are managed and integrated.

The university’s plant managers and engineers are active members of APPA, which provides leadership in educational facilities. We use this relationship to help establish guidelines for our operation, share our ideas with fellow institutions, understand state-of-the-art concepts, and to benchmark our effectiveness.

Our organization is actually a hybrid of university employees and contracted services. It can best be explained as a three-leafed plant or a version of a “Shamrock Organization,” as described by management consultant and author Charles Handy.
- The main leaf and core stem of the Plant are a concise team of over twenty direct employed university staff, managers, and professional engineers.
- The second leaf of the Plant consists of contracted managers and employees that have a certain specialty and are here on campus on a daily or routine basis. Housekeeping, grounds, and portions of our HVAC are handled in this manner. Other specialty contractors include elevator maintenance, pest controls, and licensed fire detection certification firms, etc.
- The third leaf of the Plant primarily comes into use for construction and project related activities where large workforces of skilled employees or trades are needed for an intermittent time, as well as for emergencies. Project related contractors are pre-qualified and then the work is bid by invitation. For emergencies the university maintains Memos of Understanding contracts with several contractors for quick response when needed as recommended by FEMA practices.

For ease of operation and single point of contact, the second and third leaves of the plant are managed by the first. From a customer standpoint this relationship is intended to be seamless. A link to our organizational chart is posted for a more thorough understanding of the specific responsibilities of each individual within the department.

Our multi-craft maintenance technician teams are organized by campus location or “zone.” This zone maintenance approach allows for coordinated response and “employee ownership” of the facilities as well the familiarity with the actual customers.

Physical Plant completes over 12,000 work orders per year. All of our staff can be reached by radio through our office and Central Dispatch. In order to plan and schedule effectively, work orders that take more than an hour or so are assigned to the multi-craft zone maintenance teams, while shorter assignments and emergency
repairs are assigned to RAM techs. RAM techs are multi-skilled individuals that are assigned mobile carts for quick response and work around the clock to handle our Right Away Maintenance needs.

From a customer standpoint anyone on campus can submit a request for anything that needs a normal repair through our menu-driven i-service Web-based work order system. Normal repairs generally are completed within a week's time or sooner. By using the Web-based work order system customers receive automatic updates and the customer tracking feature for any of their own open work orders.

**KEY STRATEGIC IMPROVEMENTS**

Val Peterson and Bob Lashaway of the 2002 FMEP review team appreciated the department’s devotion to the university and provided concise constructive suggestions for opportunities for improvement. We owe both of them a debt of gratitude.

While we understood and accepted all their recommendations, the priority for university resources required us to think outside the box and combine some innovative methodologies to get to the desired end result.

The faculty, staff, and students here are really great to work with. We took some risks, pushed out some new programs, and became a lot more transparent.

It all seems to be working. Customer satisfaction is high, employee morale is improved, work order backlog has been cut to one-fourth, and costs have stayed in line.

**Leadership.** The department was realigned, two key management positions were added, and we filled our director of physical plant position, which oversees the daily operation. Our mission, vision, and organization chart now reside on the department’s Web page.

**Strategic and Operational Planning.** We took every one of the 40 recommendations, determined a method to address each one, and prioritized them into three levels. This document then flowed into a more concise five-year department strategic plan that was reviewed with the president and formally signed off by the vice president of finance and administration, the associate vice president for operations, and the director of physical plant. After six and a half years we have substantially addressed 37 of the 40 recommendations. We are now doing a new plan.

**Customer Focus.** Our department mission is simple: Customer satisfaction and facilities stewardship. That really says it all. But we did not approach this goal from a traditional facilities model. We borrowed from our industrial experience and married this with state-of-the-art customer communications methodologies.

- RAM techs. Our symbol is the “Ram,” so implementing 24 hour on-site Right Away Maintenance technicians that normally respond within 15 minutes of an emergency call is campus spirited and easy to remember. This was a leap of faith as it meant reassigning unsupervised dayshift staff to do office PMs on second shift, and classroom PMs on third shift in order to be available for these emergency calls.

- I-service direct student work order interface. We advocated for the software to be LDAPP capable so that now every student and all faculty and staff can directly submit and track their own work orders on a 24-7 basis.

- Automatic work order e-mail updates. Every work order automatically generates e-mail status updates to the customer as it progresses. Acknowledgment, approval, and completion with satisfaction survey and a follow-up link. Additional communication occurs if the work order is delayed for parts order or if it is deemed as a new or capital request, which requires additional approvals and possible funding.

- Information Analysis. We realigned our budget allocations and the KPIs we track to align with measurements that allow us to compare ourselves to the
While plant management has been a quarterly basis with all crew members.

- Development and Management of Human Resources.
  - Flexibility. We have increased our staff as we have added square footage, but we are still sparsely staffed by recommendations. Our shamrock organization allows for well managed supplemental contracting when required to maintain our work order backlog at the desired level. This backlog is itemized by staff member and monitored weekly in a management meeting. Our goal is to remain at a one-week backlog, which has been reduced from the one-month level in 2002.
  - Student participation. In addition we oversee a substantial student workforce that includes interns as well as a 25-member summer paint crew that is factory trained annually by Benjamin Moore. This builds student pride in our facilities and opens communications. Department time spent on vandalism is less than 1 percent.
  - Development. We never leave any development money on the table. With a small facilities team we need the best training possible. Everyone at every level is encouraged to participate at least annually in addition to quarterly in-house training programs. Internal progression is expected.

- Process management. While plant management has been discussed to some extent, improvements with purchasing and project management were also implemented. Building standards documentation was enhanced and every print was digitized for electronic access and redundancy. Our electronic inventory of RFPs was increased, and FEMA standards were utilized to develop a concise, but complete inventory of MOUs for emergency response. In addition Physical Plant was a leader in a campus-wide voluntary environmental compliance program with a consortium of universities organized by AICUP.

- Performance results.
  - Paradigm shift. The intuitive conclusion to placing almost one-third of the staff on shift, and in RAM-tech positions that are available for emergency response, would be an increase of emergency work orders. In actuality by also assigning the PMs to those positions (when the classroom and offices were actually available) there has been a drop in service calls from 44 to 23 percent. Since we also run RAM-techs on dayshift, it has also allowed our day-shift zone maintenance to complete more in-depth service work without interruption. We start the day on a level playing field and our emergency number is not stressed.
  - Customer satisfaction. Our department is appreciated and complaints are rare. Statistically a fraction of a percent.
  - Facilities stewardship. We are privileged but challenged to have buildings that range in age from three to more than 300 years. Our weighted age is approximately 43 years. Our vision is to evolve our condition from “managed care” to “comprehensive stewardship.” We are getting there.

In summary, having the AFE validation team of Jodie Sweat of Kennesaw State and Dave Gronquist from Kansas State take time away from their campuses and families to visit our campus, converse with our staff and customers, share their experiences, and confirm that we have made the progress we set out to accomplish was a reward all in itself. We really appreciate their dedication to the profession and the time they spent with us. We covet this acknowledgment, are all still beaming, and will continue to move forward.

UNIVERSITY OF NORTH FLORIDA

Matthew Taylor is director of physical facilities at the University of North Florida, Jacksonville, FL. He can be reached at mmmtaylor@unf.edu. This is his first article for Facilities Manager.

The University of North Florida (UNF) is a young university having been established in 1972 and is growing rapidly in size and stature. UNF has expanded from a handful of buildings at the end of a dirt road to a thriving campus with five colleges in a bustling section of Jacksonville, Florida. While maintaining its small-campus appeal, the campus is located midway between downtown Jacksonville and the Atlantic Ocean. President Delaney stated, “The university is on a journey to greatness that will be guided by our commitments to excellence, focus, relevance, and accountability.”

UNF is a public institution with a student enrollment of over 16,000 and aspires to be a pre-eminent institution of higher learning serving the North Florida region at a level of national quality. UNF has over 3 million square feet (including housing) in over 50 buildings on 1,300 acres, with over 150 acres developed and a 300-acre preserve.

The university’s theme is “No one like you. No place like this.” As a support organization, we are designed to provide the atmosphere for our primary key stakeholders; students, faculty,
Students and faculty alike have different requirements and it’s our responsibility to find a median service capability to meet both needs. We must ensure that the classrooms and labs are conducive to providing the teaching and learning experience desired. We must ensure that the staff facilities are maintained in a manner that meets their needs. Our goal is to ensure our facilities are representative of “No place like this” both inside and out.

Recognizing that an educational institution’s reputation is built on two major elements, the academic excellence of the faculty and physical environment in which the educational process occurs, we strive to provide an impressive and functional physical environment that will aid in attracting quality faculty, staff, and students. The university is educationally accredited by the Southern Association of Colleges and Schools (SACS) and recently completed the onsite evaluation for reaccreditation.

Our goal is to increase customer satisfaction, create an environment that helps attract and retain employees, faculty, and students and recognize Physical Facilities’ contribution to the overall efficiency in maintaining the UNF physical plant. To that end, our mission effective July 1, 2009 has been updated to: “The conservation and stewardship of campus assets while providing comprehensive quality customer service to the campus community.” To do that, we work in concert with Facilities Planning, Environmental Health & Safety, and ADA departments to ensure that the university operates and maintains physical facilities that are adequate to serve the needs of the institution’s educational programs, support services, and other mission-related activities.

A major emphasis of Physical Facilities is to protect the environment and to conserve and protect our resources, especially the natural beauty of our campus. Management of the Sawmill Slough Preserve is a responsibility of Physical Facilities. Our responsibilities include approving research and other activities in the Preserve, developing a Natural Areas Management Plan, and managing the Preserve according to the Natural Areas Management Plan. Particular concerns for Preserve management are exotic pest plant control and the need for prescribed burns in the pinelands.

Physical Facilities is a Division within the Administration &
Finance Division. The director of physical facilities reports to the associate vice president for administration & finance, who reports to the vice president for administration & finance. The senior leadership comprises the director, associate director, professional engineer (assistant director), and two assistant directors. We presently have 216 authorized positions to provide the services necessary to maintain the university resources of over two million square feet of a gross square footage that exceeds three million square feet. Our maintenance support does not include Housing, which maintains its own space.

We are regulated by federal, state, and local agencies for code, health and safety, financial, environmental, and product regulations. We have an active safety program administered by Environmental Health and Safety. Monthly safety meetings are conducted and offer a variety of topics, guest speakers, etc. We have a variety of business partners, suppliers, and distributors that provide the products and services. We continually look for better products and materials that make our job easier. These partners, suppliers, and distributors are also key stakeholders.

Physical Facilities has several major information systems in place to assist with our operations. Our Computerized Maintenance Management System (CMMS) provides management of our service requests/work orders, major and minor projects, preventive maintenance program, space management, the utilities’ billing system, and the key module. Preventive Maintenance (PM) work orders are set up in the system for both equipment and facilities and historically make up approximately 50 percent of our work orders.

Our irrigation management system is a computerized system with wireless connection to 15 irrigation controllers around campus. The irrigation specialist and crew manage the system and are the primary users. It offers them more efficient use of staff time in identifying problems, better weather controls, and reduces the travel time to monitor controllers. As a result of the implementation, we expect additional reductions in water consumption for irrigation.

Our Engineering Department utilizes desktop and 3D CAD applications. The desktop application is used to manage building floor plans and data files, while the civil 3D is used to manage campus site plans.

Maintenance and Utilities employs a state-of-the-art Building Automation System (BAS). The system fully integrates, monitors, and controls temperature and environmental conditions within campus buildings, monitors exterior and interior lighting, building security, CCTV, elevator interface, lift stations, generators, and fire alarm. The system monitors and controls varied critical and routine operating functions on campus without staff input.

The fire alarm system provides a single-source application for life safety monitoring of campus buildings. The system is centrally monitored and supervised 24/7/365 by the University Police Department and is fully integrated into for secondary monitoring by Physical Facilities maintenance staff.

The elevator monitoring system is a computerized platform that facilitates the monitoring and collection of data from third-party or proprietary elevator controllers. It is interfaced with the control system to allow real-time alarm monitoring of elevator status, position, or alarm condition.

Our two administrative systems impact the division and the university community. The fuel master system is a state-of-the-art fuel dispensing and tracking system that provides historical record of fuel transactions and monitors fuel usage. Usage is restricted to all campus owned vehicles that can be fueled via the system and is used to recharge all campus users. Our timekeeping system is interfaced with another program for payroll purposes. It was implemented in 2005 and was an instant time saver.

Many of our key challenges result from the university vision. We continue to have challenges in recruiting quality staff that are multi-talented. Our biggest challenge at present is determining how we can maintain the required standard level of service while facing continuing budget reductions. Our vertical transportation is challenging at times, especially with new units that are proprietary and have operating issues. Keeping staff motivated during these times of economic misfortunes impacts the morale of the division.

Maintaining facilities and grounds can be challenging. Except for emergencies, we must remain compliant with the noise restrictions in certain areas of campus so as not to interrupt or disturb classes when getting close to facilities. By adjusting work schedules and implementing a night shift, we have overcome some of these challenges. Having a staff that is highly creative certainly helps with meeting these challenges.

Our strategic goals and continuous improvement requirements support the university strategic goals. Peer institutions are utilized to compare capabilities and these vary depending on the situation. We have used the University of Florida, University of South Florida, University of Central Florida, Florida Atlantic University, Florida International University, Florida State University, Florida A&M University, and the University of West Florida for various issues.

Our successes are determined by several means:

- Working within our budget
- Energy savings as a result of improvements
- Work order survey
- Decreases in refuse processed through recycling rather than going to landfills
- Reduction of expenditures based on improved operating methods
- Feedback from the campus community
- Meeting or exceeding our goals

We have redefined our standards to coincide with the APPA standards. The Custodial and Maintenance standards have been implemented and we have begun the development standards for Landscape and Grounds. We have also utilized Lean processes and techniques for process improvement. We recently enhanced our quality control functions by establishing quality inspector positions that inspects, evaluates the work completed and meets with customers to determine their satisfaction with the service provided based on their service request.
Beginning as an A&M school in 1906, the University of West Georgia (UWG), is a coeducational, residential, liberal arts institution located in Carrollton, Georgia. Over the years, UWG has expanded to be the fifth largest campus within the University System of Georgia, encompassing 645 acres, 84 buildings, and 11,700 students.

UWG's campus is a unique blend of old and new featuring a front portion of the campus that is dotted with structures built in the early 1900s, while the remaining portion exemplifies the more contemporary modes of architecture. The campus is also considered to be one of the most beautiful of the 35 institutions that comprise the University System of Georgia, continuing the long tradition of systematic landscaping that began in 1919 when gifts of trees from each of the then 48 states were transplanted on campus.

UWG's department of Campus Planning and Facilities (CP&F) consists of the Office of the Assistant Vice President for Campus Planning and Facilities, Campus Planning and Development, Risk Management/Environmental Health and Safety, and Facilities and Grounds.

CP&F has a staff of 140 employees whose mission is to professionally operate, maintain, and support the development of quality facilities, grounds, and services, and to support the campus community, students, faculty, and staff.

Campus Planning and Development provides architectural, engineering, and project management services for all planned projects and contracted work on campus. The department’s versatile and skilled staff serves in project management, design, renovations, additions, utility, and infrastructure improvements. In addition to providing quality work and customer satisfaction, their goal is to serve the campus community in a professional, efficient, and effective manner.

To ensure that all activities that occur on campus either meet or exceed requirements mandated by local, federal, and state agencies, Risk Management/Environmental Health and Safety was developed under the CP&F umbrella in 2000. Since then they have expanded their mission to protect UWG’s students, visitors, faculty, and staff through training, education, risk assessment, and mitigation.

Facilities and Grounds comprises the work information center, maintenance, motor pool, custodial services, moves/setups, paint shop, construction and landscaping, and grounds maintenance. The functions of repair and routine maintenance, energy management, and special projects are scheduled, performed, and managed for the more than 2.1 million square feet of building floor space.

Assistant Vice President Mike Renfrow believes that the Malcolm Baldrige criteria that was adapted by APPA for the Award for Excellence (AFE) was one of the key factors that helped to provide change and clarity for CP&F leadership. “We had adopted the Baldrige criteria in 2003 while performing a self assessment with another state agency. When APPA later revised the AFE to assess similar criteria, we felt confident in applying for this award as we had three years worth of trends developed in several performance measures.”

Mr. Renfrow also points out the organization’s continuous improvement efforts as a pillar of strength. “As early as 2000, CP&F...
has employed the NACUBO-endorsed template of BPR as its tool for process improvement.” BPR is the acronym for Business Process Redesign, and CP&F has identified 25 core processes and over 100 sub processes over the last eight years and is constantly seeking ways to make them more efficient and effective. In 2006, CP&F received three best practice awards from SACUBO for our efforts in BPR and continue to assess an average of 15 processes per year.

CP&F takes great pride in creating an environment that promotes, endorses, supports, and allows ordinary people to do extraordinary things. Sprinkled throughout this organization are several examples where experience, encouragement, and empowerment have helped CP&F to advance the processes that are deployed while maintaining its focus on supporting UWG’s overall motto of Educational Excellence in a Personal Environment. In keeping this tag as its compass, CP&F has constructed a working environment that strives for:

- **Professionalism in its services.** This is achieved through the guiding principle of “doing what is right,” employee training, benchmarking, and keeping its focus on their three primary customers: students, faculty, and staff.
- **Increased employee input, involvement, and development.** This is accomplished through regular employee meetings, an annual survey called “Organizational Trust,” a monthly newsletter, and annual performance appraisals.
- **Continuous process improvement.** BPR has enabled CP&F leadership to incorporate changes in technology to help eliminate non-value added steps and improve efficiency and effectiveness. In addition, Six-Sigma methodologies were introduced in FY09 in support of Chancellor Erroll B. Davis’ challenge to implement systematic process improvement efforts across the campuses in order to improve effectiveness.
- **Customer assessment.** Having administered manual surveys since 2000, CP&F initiated an annual electronic survey for all three areas beginning in 2006. In 2007, the Work Information Center also implemented a five-question survey for each work order performed. Since that time, the response rate has steadily increased, and feedback is provided to CP&F leadership on a monthly basis.
- **Benchmarking with others.** Over the past decade, CP&F has participated with APPA using the strategic assessment model, the facility performance indicators, and the APPA Award for Excellence. They have also benchmarked with others using such assessment tools as the University System of Georgia Peer Review, EPA Self Audit, and the Georgia Oglethorpe Award Inc. – a Malcolm Baldrige-based template.
CP&F continues to use the aforementioned methodologies in addressing higher education challenges such as increased enrollment, soaring energy costs, and limited funding.

With an increase in enrollment, square footage, and acreage, work requests have soared by 35 percent over the past two years while facilities personnel has been reduced. Work orders per facilities FTE increased by 10.7 percent in FY08 and an additional 18.7 percent in FY09.

In the past five years, CP&F has invested in a mechanical engineer, energy controls, and implementing government recommended set points to achieve an 11 percent reduction in MBTUs while gross square footage has increased by 18 percent.

Due to drought mandates that were established by the State of Georgia in 2007, UWG reduced water consumption by 18.1 percent in FY08 and an additional 3 percent in FY09. Student enrollment increased by 10.7 percent during this same period.

With the price per gallon of gasoline eclipsing $4 in the summer of FY08, CP&F established a Six-Sigma effort for their work and purchasing processes that resulted in a 10.5 percent reduction in gasoline fuel consumption, a 14.7 percent reduction in diesel fuel consumption, and a $17,525 overall savings in fuel purchased in comparison to the previous fiscal year.

For the first time since its inception, Risk Management completed comprehensive property inspections in all 84 buildings on campus within the same fiscal year. The information has provided facilities personnel with confirmation of work that has been completed and an objective viewpoint of work that has to be done.

The CP&F staff completed two major building projects exceeding 152,000 square feet within budget and ahead of schedule in FY09. Two additional projects—the Greek Village (88,098 sq. ft.) and the Athletic Complex (244 acres)—have just been completed.

Facing a reduction in state revenues in FY09, CP&F implemented austere methods to assist UWG in meeting mandated budget reductions. With the brunt of the reductions coming from the freezing/elimination of personnel positions, CP&F had to develop new methods and approaches to getting the work done without compromising services or employee morale.

Using established feedback methods such as the Organizational Trust Survey, departmental customer satisfaction surveys, and work order surveys, FY09 measurements reflected a very satisfied customer base as well as content employees.

While Mr. Renfrow is pleased with CP&F’s efforts and achieving this distinguished award, he still believes there is room for improvement. “I believe in our people, and we have the capability to improve and build on our current strengths.” He also encourages other institutions to consider undertaking the AFE assessment. “So many institutions go to great lengths to find competition to benchmark against when the best benchmark for comparison is within your own organization. APPAs AFE will provide your organization with a self examination of your leadership, strategic planning, customer focus, information analysis, human resource efforts, process management, and business results.”

CP&F remains committed to providing the students, faculty, and staff of UWG with the highest levels of service in order to maintain the stewardship of the university’s facilities. Mr. Renfrow notes, “While we are honored to have been selected for the 2009 APPA AFE, we remain cognizant that the key to our success is a dedicated, loyal, and motivated staff that takes pride in their accomplishments and the successful delivery of the institution’s mission – Educational Excellence in a Personal Environment.”