

FACILITIES manager

MAY/JUN 2015

THE HUMAN SIDE OF FACILITIES MANAGEMENT

INSIDE

Career Paths for EPs

Big Brother Games

An African American's
APPA Experience

One Woman's Journey



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THE HUMAN SIDE OF FACILITIES MANAGEMENT



16 Defining a Career Path for Emerging FM Professionals

By David Isaacson

The human side of facilities management is partly about recognizing and fostering the facility management professional's personal career goals. It's also about recognizing that FMs are in a customer service business. These two aspects go hand in hand, and this article addresses how understanding and working with facilities users can help facilities managers become more strategic and advance in their careers.

22 Big Brother Games on Campus

By Richard L. McDermott

Informal organizations benefit the organization in many ways. But when informal organizations go bad, they can turn into an episode of *Big Brother*. And in a nonprofit university campus, the games can be of a higher order than almost anywhere else.

27 An African American Experience in APPA

By Sam L. Polk Sr., Ed.D.

Born in Jackson, Mississippi, Sam Polk grew up during the challenging years of social segregation, profound racial injustice, and inequality, and he participated in the struggle to win the rights we now share. Convinced that APPA was the place to help him succeed in the facilities management field, Polk propelled himself and others by taking advantage of the opportunities APPA offered.

32 My APPA Journey and the Women Who Inspire Me

By Winnie Kwofie

As a 100-year-old organization representing a traditionally male-dominated profession, APPA should be celebrating this crack though the glass ceiling with its four elected women presidents and a number of women leaders in its member institutions. Nevertheless, the gender disparity in leadership and the path to leadership positions continue to be a challenge in facilities.





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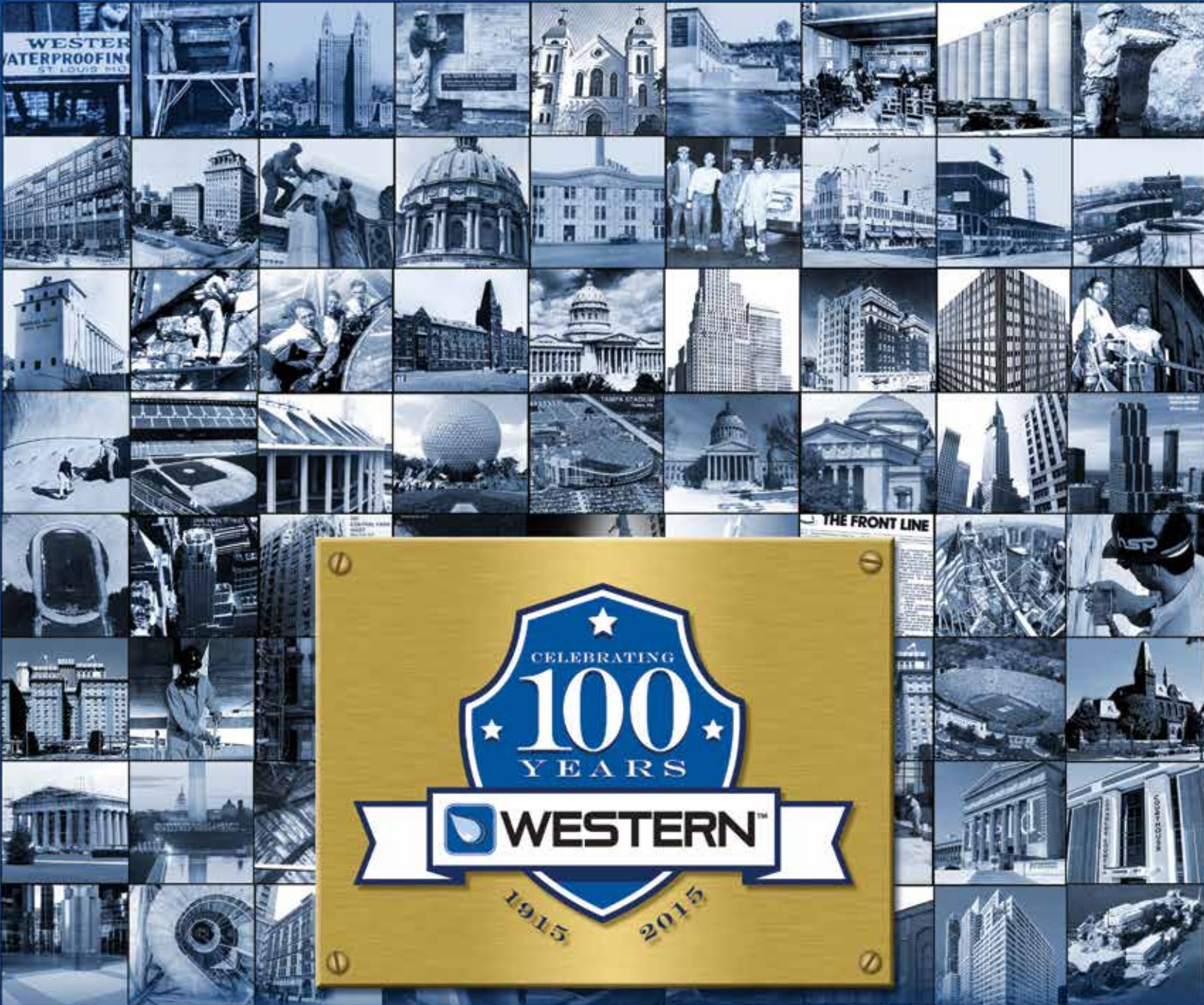


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38





WE'VE BEEN BUILDING UP TO THIS MOMENT FOR OVER A CENTURY.

My, where does the time go? For the past 100 years Western Waterproofing has restored some of the greatest buildings and landmarks all across our great nation. And now, after a century of unsurpassed excellence, we turn to reinvent ourselves. To offer a wider variety of specialty services to an even wider variety of industries, Western Construction Group's five member companies, and 30+ branches, will now be known as Western Specialty Contractors. Although our name may have changed, our dedication to quality service and our employees will never waiver. For the next 100 years and many more to come.



IN MEMORIAM: REX O. DILLOW

We recently learned that APPA


Member Emeritus Rex Dillow died on January 22, 2015, at the age of 92. While an APPA member at the University of Missouri Columbia in the late 1970s and early 1980s, Rex took an instrumental role in professionalizing what is now the Institute for Facilities Management, supported the creation and development of *Facilities Manager* magazine, and served as the editor-in-chief for the first two editions of the *Facilities Management* manual, which evolved over the years to become the current Body of Knowledge (BOK). Rex also served as an interim executive director at the APPA office, and he was the namesake for the Rex Dillow Award for Outstanding Article in *Facilities Manager*.



Pictured above: Rex Dillow, right, co-presenting the first Rex Dillow Award for Outstanding Article to Doug Christensen, center, with Phil Rector, left (1988 photo).

Rex was an avid golfer, to put it mildly, and he remained active well into retirement in organizing and administering golf tournaments in Columbia, Missouri and at the MU campus. In 2005, the championship trophy of the Columbia Championship golf tournament was designated The Rex Dillow Cup.

Rex's delightful wife Dottie passed away in 2012, and Rex is survived by his son Matthew Dillow, daughter Mary Elizabeth Manka, two grandchildren, and a brother and sister.

Rex Dillow is just one example of the many members and volunteers over our 101-year existence who have contributed so much of their unique qualities, expertise, and time to APPA the organization and to the institutions and people who comprise our membership. We thank Rex for being part of APPA's history. 

Coming in July/August 2015

- Shifting Goals, Managing Expectations
- Losing Institutional Knowledge Even While Data Expands
- Annual FM Salary Study

FACILITIES manager

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About APPA

APPA promotes leadership in educational facilities for professionals seeking to build their careers, transform their institutions, and elevate the value and recognition of facilities in education. Founded in 1914, APPA provides members the opportunity to explore trends, issues, and best practices in educational facilities through research, publications, professional development, and credentialing. Formerly the Association of Physical Plant Administrators, APPA is the association of choice for more than 13,000 educational facilities professionals at more than 1,500 learning institutions throughout the United States, Canada, and abroad. For more information, visit us at www.appa.org.

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facilities digest

By Anita Dosik

APPA ELECTION RESULTS

2015-2016 ELECTION RESULTS

Thank you for voting! We are pleased to announce the newly elected officers for APPA's 2015-2016 administrative year:

President-Elect

Chuck Scott, Illinois State University

Vice President for Information and Research

Norm Young, University of Hartford

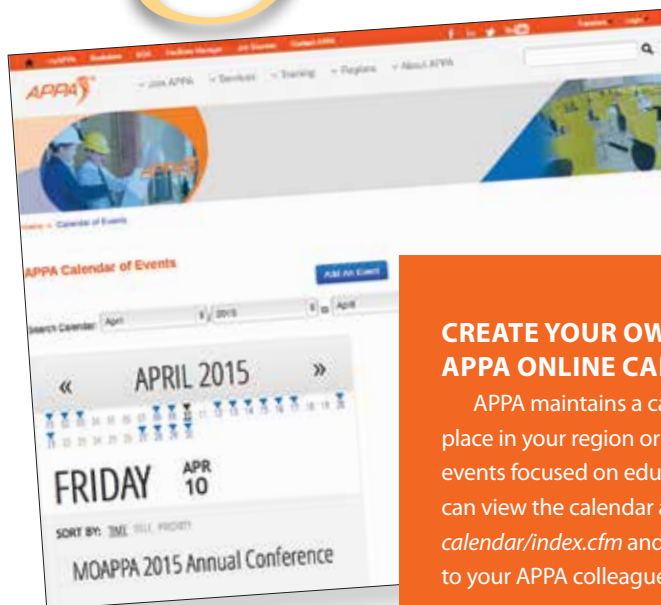
Vice President for Professional Development

Ruthann Manlet, University of Minnesota

The successful candidates will take office at the APPA 2015 annual conference in Chicago, Illinois, August 4-6, 2015.

Many thanks to the Tally Committee for counting and verifying the votes:

- Al Stearns, member emeritus, chair
- Patrick Andriuk, CBRE



CREATE YOUR OWN EVENT ON THE APPA ONLINE CALENDAR

APPA maintains a calendar of events taking place in your region or chapter, as well as other events focused on educational facilities. You can view the calendar at <http://www.appa.org/calendar/index.cfm> and also add events of interest to your APPA colleagues.

APPA'S FACILITIES MANAGEMENT EVALUATION PROGRAM (FMEP)

The quality of an educational organization's facilities has a major impact on attracting and keeping students. But how do the many people who depend on your facilities define quality?

How do your facilities meet their expectations? And how do they measure up against other campuses?

APPA's Facilities Management Evaluation Program (FMEP) helps you turn these questions into a powerful catalyst for improving how you manage your facilities. Modeled after the Baldrige National Quality Program Criteria for Performance Excellence, the FMEP criteria provide a framework for continuous improvement. This customized evaluation gives you the feedback and actions you need to transform your educational facilities program into one worthy of international recognition for quality.

The FMEP is not a cookie-cutter process. Each FMEP is customized and tailored to the specific institution for which it is conducted. The evaluation team is handpicked so that each institution is evaluated by a select group of peers from campuses sharing similar educational, financial, and physical characteristics.

If you are interested in:

- Achieving continuous quality improvement
- Exceeding customer expectations
- Improving your understanding of facilities issues
- Changing your organization's responsiveness to the demands it faces

Consider the APPA FMEP! For more information, visit www.appa.org/fmep/ or contact Holly Judd at holly@appa.org.



EVENTS

2013-2014 FPI REPORT NOW AVAILABLE

The 2013-2014 FPI Report is now available to help you assess, measure, and lead your institution to success. With over 233 learning institutions now participating, the report will empower you with the vital data, statistical references, and reporting tools needed to measure operations and performance. The report will also help identify capital asset realities and lead a successful facilities strategy that supports your institution's mission and vision.

The FPI report answers to the following questions, and more:

- How well is your facilities portfolio in alignment with your institution's strategic direction and academic focus?
- What are your facilities inventory, square footage, and building ownership costs?
- How efficiently do your facilities operate?
- How does your campus facility performance contrast with its peer institutions?
- Is my campus adequately funding the facilities annual management budget?



To access the report, log in to your myAPPA account page, go to the myResearch heading, and under it, click the link titled "FPI Report Access."

The report is free to APPA members who also participated in the survey, or it can be purchased:

- APPA Member/Non-survey Participant Report: \$500
- APPA Nonmember/Survey Participant Report: \$895
- APPA Nonmember/Non-survey Participant Report: \$1,000

For additional information, or to purchase the FPI report, please visit <http://www.appa.org/research/FPI/index.cfm>.

APPA EVENTS

June 1-4, 2015 ACUI/APPA Facilities Essentials, Virginia Tech University, Blacksburg, VA

Aug 3, 2015 Emerging Professionals (EP) Summit, Chicago, IL

Aug 3, 2015 Senior Facilities Officers (SFO) Summit, Chicago, IL

Aug 4-6, 2015 APPA 2015 Conference and Exposition, Chicago, IL

Sep 13-17, 2015 APPA U: Institute for Facilities Management and Leadership Academy, Scottsdale, AZ

Oct 19-22, 2015 ACUHO-I/APPA Housing Facilities Conference, St. Petersburg Beach, FL

REGION/CHAPTER EVENTS

May 18-22, 2015 SRAPPA Supervisor's Toolkit, Tallahassee, FL

May 21-22, 2015 AAPPA Conference, Halifax, NS

May 23-27, 2015 GAPPA Conference, Jekyll Island, GA

Jun 9-12, 2015 OAPPA Conference, Thunderbay, ON

Sep 8-11, 2015 RMA 2015 Conference, Big Sky, MT

Sep 19-23, 2015 MAPPA 2015 Conference, Milwaukee, WI

Oct 4-7, 2015 ERAPPA 2015 Conference, Providence, RI

Oct 9-15, 2015 PCAPPA 2015 Conference, Portland, OR

Oct 10-13, 2015 SRAPPA 2015 Conference, Baton Rouge, LA

Oct 11-14, 2015 CAPPA 2015 Conference, Manhattan, KS

For more information or to submit your organization's event, visit www.appa.org/calendar.

Save the Date!

APPA 2015 Annual Meeting & Exposition

August 4-6, 2015 • Chicago, Illinois



Mark your calendars to attend the 2015 APPA Annual Meeting & Exposition!

APPA 2015 will be held August 4-6, in Chicago, Illinois. You won't want to miss this exciting gathering of fellow facilities professionals and exceptional speakers!
<http://www.appa.org/training/APPA2015/index.cfm>

COMING
THIS FALL!

APPA U

DON'T MISS THE ESSENTIALS OF FACILITIES MANAGEMENT TRAINING SEMINAR JUNE 1-4, 2015

The Essentials of Facilities Management Training Seminar is a foundational development program for college student union professionals and other facility administrators. This inaugural event, co-presented by the Association of College Unions International (ACUI) and APPA, will take place June 1-4 hosted at Virginia Tech University in Blacksburg. The program is designed for professionals who are new to facility management or are transitioning into responsibilities of overseeing facilities.

New in 2015, this partner program will bring together facilities professionals from across campus to discuss trends and best practices. Mid-level professionals and those who are new to facilities management will benefit from attending. This seminar also is recommended for anyone who is charged with oversight of a facility and who has not previously had such responsibilities within their portfolio.

While the content will be especially topical for campus student union professionals, the curriculum has been planned to ensure those from other campus areas will benefit as well. Content will center on the four facility management learning domains, based on skill sets and learning domains from APPA and ACUI:

- General Administration & Management
- Operations & Maintenance
- Environmental & Energy/Utilities Management
- Building Design & Construction

Specific topics include:

- Facility condition assessment, deferred maintenance, and capital planning
- Technology upgrades
- Custodial management and standards
- Project management
- Emergency preparedness and continuity planning
- Chiller, air handlers, and HVAC software

Learn more at <http://www.appa.org/training/EFMSeminar/index.cfm>.



Association of College Unions International



APPA U OFFERS GRADUATE PROGRAMMING TO INSTITUTE AND ACADEMY GRADUATES

The most fundamental mission of APPA is the delivery of professional development courses that address the needs of the facilities management community—from that of the front-line supervisor, to the most senior of our facilities officers. To that end, we are pleased to announce the addition of a new program to our portfolio: APPA U Graduate Programming.

The offering is intended to provide graduates of the APPA Institute for Facilities Management or the Leadership Academy an environment to engage at a higher level of planning and strategic thinking. The program is delivered in a framework that allows for real-world challenges and diverse issues to be addressed in a collaborative setting, thus allowing for the opportunity to put into play the strategic solutions learned in previous APPA programs.

Participants will receive a first-hand experience in broad scope analysis, decision making, collaboration, and presentation at a senior administrative level, including:

- Critical thinking
- Systems thinking
- Clearing the path/setting the stage
- Negotiating
- Strategic communication to leadership and staff
- And much more!

Registration will open alongside the APPA U offering on June 1, and more information will be available to prospective participants.

For additional questions prior to registration opening, please contact Suzanne Healy, APPA's director of professional development, at suzanne@appa.org.

APPA MEMBERSHIP RENEWAL NOTICES SENT— PAY BY MAIL OR ONLINE

The 2014-15 APPA membership year began April 1, 2015 and runs through March 31, 2016.

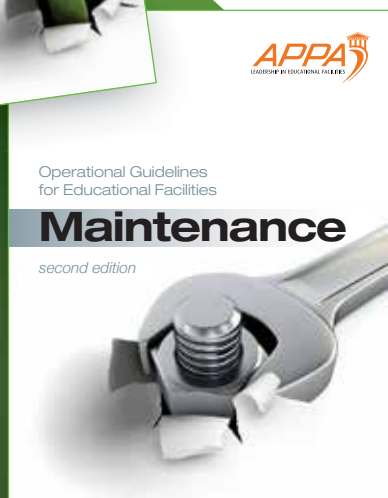
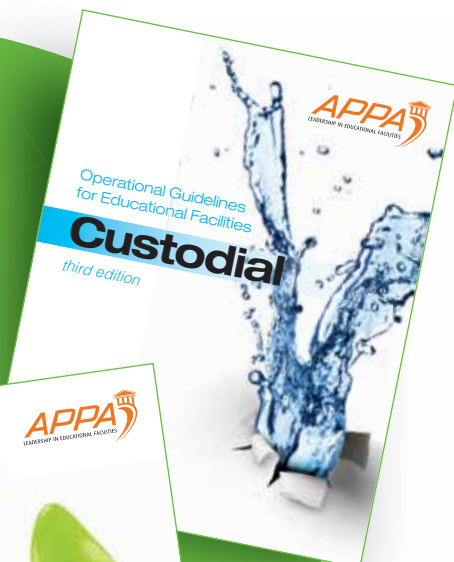
APPA accepts dues payments by major credit card through the APPA website at www.appa.org via myAPPA, your personalized APPA website account. Renew your organization's membership today! Remember, current membership expires **March 31, 2016**.

For assistance or more information, contact Sam Waymire at swaymire@appa.org. Thank you for continued support of APPA!



APPA's Operational Guidelines Trilogy!

All three areas of operations are available for purchase from the APPA website at www.appa.org/bookstore.



Editor-in-Chief: Alan S. Bigger, APPA Fellow

The Trilogy covers the following areas of operation:

Custodial

Task Force Chair: Casey J. Wick, American International School/Dhaka

Includes the original concepts of the five levels of clean, staffing service levels, and information on such specialized facilities areas as residence halls, healthcare facilities, and 33 updated room categories.

Grounds

Task Force Chair: Tom Flood, Elon University

A comprehensive guide to maintaining and managing a grounds and landscaping operation. Contains information on sustainable grounds operations; environmental stewardship; staffing guidelines; contracting options; position descriptions; benchmarking, and environmental issues and laws.

Maintenance

Task Force Chair: Tom Becker, Philadelphia University

A guide for maintenance in facilities. Subjects include maintenance of buildings; levels of maintenance and benchmarking; case studies; compliance, safety, and sustainability; zero-based staffing buildup; career ladder and job descriptions; and much more.

Individual Books:

APPA Member: \$85 Non-Member: \$110

3-Volume Set (15% discount!):

(offer available for print format only.)

APPA Member: \$217 Non-Member: \$281

Visit www.appa.org/bookstore
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A Facilities Primer for Business Officers

By E. Lander Medlin

Most CFOs/CBOs did not come to their position with a background in construction or facilities and energy management. So there is a big knowledge gap to bridge when it comes to their leadership role in overseeing the facilities management function. Therefore, it is critical that the senior facilities officer seek to bridge that gap by building a strong, collaborative working relationship focused on regular communication, education, and the provision of data and information about the needs and priorities of the physical facilities and utilities infrastructure.

With this in mind, I had the opportunity to deliver a 25-minute facilities “primer” videocast for NACUBO (National Association of College and University Business Officers) in February 2015 and that was posted on their website in early March (www.nacubo.org). This column briefly captures a portion of that content.

FACILITIES DO MATTER

From the CFO/CBO perspective, what probably keeps him or her awake at night when it comes to facilities are the latent financial risks and the relative reliability of their facilities investment portfolio. We all recognize that it is impossible to allay those fears in a short videocast. However, it is possible to highlight several key issues and challenges, and

provide some critical questions as a broad overview.

Certainly, my purpose was *to increase the CFO’s understanding of the importance of planning, managing, and leveraging their facilities as a strategic, long-term institutional asset (an essential investment) that is optimized to support the institutional mission.* This requires an increased focus on facilities stewardship—the long-term viability and preservation of the most valuable fiscal asset an institution owns...its physical infrastructure. Yes, facilities matter!

Facilities are especially important given the current investment in an institution’s built environment. Recognize that when the *total* current replacement value (CRV) of ALL higher education institutions’ facilities and utilities infrastructure is compared to the total endowment, the total CRV of that built environment exceeds the total endowment amount by 2.5 to 3 times! Furthermore, senior institutional officers are highly educated about the institution’s endowment, but that is usually *not* the case for the campus facilities portfolio (both short and long term). Both are strategic investments, strategic assets.

Making knowledgeable decisions about when and where to invest and the resultant long-term impact requires information from the facilities team to answer the most important institutional questions about your facilities investment portfolio.

GENERATIONAL THINKING

The best question given the rapidly changing pedagogy, technology, research, and student expectations: *Is the facilities portfolio (infrastructure and organization) appropriately optimized to support the institutional mission and strategic goals?* Correspondingly, *Are our metrics aligned with the institution’s goals and mission? Are our metrics providing the right information to enable us to manage appropriately?* A brief look at the evolution of performance measurement through a maturity model for the analysis of FM KPIs (copyrighted by Duane Hickling of Hickling & Associates) is powerful and highly instructive.

First Generation Thinking asks: *Are we spending enough on our facilities portfolio?* Hence the measures are cost comparisons and averages and benchmarks. Unfortunately, this devolves into a conversation about being “average” and just focused on “spending.”

Second Generation Thinking asks: *Are we getting full value from the resources committed to sustaining our facilities portfolio?* Here the measures are comparisons against best practices, Lean Management process analysis, how productive we are, and so on.

However, **Third Generation Thinking** goes deeper by asking: *Is our institutional facilities portfolio appropriate/optimized for the delivery of the mission?* Therefore, our measures are focused

on such things as intensity of space use, technology analysis, etc. It is not just a facilities question asked in a vacuum.

Ultimately, it means we ALL have to come to the table with information in support of the larger institutional portfolio's strategy and direction. Thus, the focus of performance measurement is on continuous improvement to help the institution get better all the time over time. Using all this data to measure value and make it specific to the business goals of the institution is a far better, deeper, more meaningful analysis which gets at real value rather than just a comparative analysis. You then know why you are investing and what problem(s) you are solving.

LONG-TERM THINKING


It's easier for the CFO to put your numbers in perspective and assess your overall situation long term if you first explain and then apply the practices and principles of Total Cost of Ownership (TCO). In essence, rather than focusing on the "whole" building, the focus is on systems and subcomponents (roofs, HVAC, MEP, carpet and flooring, etc.), which allows a richer conversation concerning the different life cycles, repair, replacement, and upgrade schedules and timeframes of building systems and subcomponents.

This gives rise to a deeper discussion of the TCO framework's financial elements for each of the "life-cycle" Uses of Funds (costs/expenses) and their likely associated Sources of Funds (revenue/income). Rolling up those financial elements and the systems and subcomponents into three major categories—Planning, Design & Construction (one-time costs); Maintenance & Operation and Energy & Utilities (annual, recurring costs); and Funded Depreciation or Recapitalization (periodic costs)—highlights the fact that the costs in percentage terms over the life of a building and its systems and subcomponents general fall out at 15 to 25 percent for PD&C; 75 to 85 percent

for M&O/E&U; and about 1.5 percent of CRV for Funded Depreciation or Recapitalization.

The realization that 80%+/- of the building's systems costs over the life of the building are either lost in the excitement of a new building "donation" or not considered at all—hence growing amounts of deferred maintenance. And when scheduled maintenance is not done daily, weekly, monthly, annually due to the lack of these fund allocations, then it's the old adage: *"Pay me now or pay me later...or in reality, pay me more later!"* Hence, know your numbers, ratios, performance and trend data; why they are what they are; what story they tell about the qualitative and quantitative condition of your facilities infrastructure and organization; and finally, how they align with the institutional mission and strategic goals.

MORE TO TELL

The facilities primer videocast continues to tell more about the process of data collection, and highlights critical questions on other important FM topics such as space management, sustainability, energy management, safety and security/emergency preparedness, and organizational staffing guidelines, along with the importance of professional development for the facilities staff, and building a strong, collaborative partnership with the SFO team. Please take a moment to view the videocast, share it up and down the organization, and engage regularly with your CFO/CBO. 

Lander Medlin is APPA's executive vice president; she can be reached at lander@appa.org.

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Tapping into APPA's Representatives

By Ruthann Manlet



The senior and junior representatives to the APPA Board of Directors bring many years of practical experience and service to our organization. The junior representative for each region is generally the immediate past president or current president of their respective region, and the senior representative is in the second year of service in this capacity.

These representatives have been involved with APPA for many years, and each brings a unique set of skills, experiences, and perspectives to APPA. The representatives have monthly conference calls and meet twice a year to discuss how to further the initiatives of their specific region and APPA as an entire organization.

The primary responsibilities of the senior representative are:

- Represent the region's interests on the APPA Board
- Serve on APPA's Nominating Committee
- Serve on APPA committees at the request of the APPA Chair
- Inform the region's board and membership of the activities of the APPA Board
- Submit reports to the APPA Board as to the region's activities

The primary responsibilities of the junior representative are:

- Ensure all information regarding the region is available to members
 - Serve on APPA's Bylaws Committee
 - Recommend appointments to the region's president as required
 - Submit proposed recommendations to the region's board of directors
 - Present and explain information to membership at the annual meeting

The senior and junior representatives to the APPA Board have recently engaged in a new exciting initiative by collaborating with the Information and Research Committee to

be subject matter experts in the review of the content material of the BOK.

APPA's Body of Knowledge (the BOK) develops, updates, and disseminates the foundational content required by facilities professionals at colleges, universities, schools, museums, and other nonprofit, educational organizations.

The BOK is built on the foundation of the four core competency areas identified by APPA:

- General Administration and Management
- Operations and Maintenance
- Energy, Utilities, and Environmental Stewardship
- Planning, Design, and Construction

The digital BOK (pronounced B-O-K) will assist you in your search for professional guidance, best practices, and policies and procedures as you support the mission and vision of your educational institution. The BOK also serves as the foundational text for APPA's Institute for Facilities Management, as well as the body of knowledge you need to know as you pursue APPA's Certified Educational Facilities Professional (CEFP) credential and the Educational Facilities Professional (EFP) certificate. The initiative is ongoing, and updated sections are posted as soon as they are peer reviewed and approved for publication.

Currently the representatives are working on three additional initiatives:

**HELLO
I AM...**

*Your APPA
Representative*

The Mexico Initiative

The integration of Mexican states under the APPA six-region structure will provide leadership and promotion of the educational facilities profession with Mexico. The addition of Mexico's states to its current structure will further advance APPA's mission, while encouraging greater engagement and participation of Mexican institutions within APPA programs and services.

The senior and junior representatives have contributed to the success of the initiative by working within their regions to promote Web-based translation service functionality and organized efforts by members to promote the APPA-Mexico initiative at conferences and events and provide regional support with the availability of scholarships, marketing materials, and training information.

Mentoring our Facilities Professionals

APPA recognizes the importance of promoting a mentoring culture as we continue to attract and retain facilities professionals. Mentors support and encourage APPA members with less experience, providing both formal and informal training that will assist the member in becoming more knowledgeable and competent as they advance in their professional career.

The senior and junior representatives are instrumental in developing a vital and thriving mentoring program that can be utilized by all of APPA's regions and chapters. If you are interested in becoming a mentee or mentor, please contact the representative for your region listed in the APPA website.

Recruitment of Former Military Personnel

The military initiative focuses on developing a plan to attract and recruit former military professionals into the facilities management profession. The senior and junior representatives will attend job fairs and meet with military personnel to explain the opportunities

and benefits of becoming involved with our industry.

We invite you to contact your region's senior and junior representatives and utilize the wealth of knowledge that these individuals bring to our organization. You can find their contact information at www.appa.org/board/board.cfm. All APPA members are encouraged to get involved

and take advantage of the many opportunities provided by APPA. 

Ruthann Manlet is facilities manager at the University of Minnesota/Twin Cities, and senior representative to APPA's Executive Committee. She can be reached at manle001@umn.edu. This is her first article for *Facilities Manager*.



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Membership—Moving Forward, the Next 100 Years

By Robert Andrews

APPA has reached a historical marker—100 years young. So as we look to the future, it's more important than ever to support our leaders in educational settings. As American Council on Education president Molly Corbett Broad reminds us, "We face the urgent requirement to develop the pipeline for the next generation of leaders, who will step into a much more complicated higher education environment."

APPA serves this pipeline and challenges its members to step forward, be counted, and build their skills to support individual development and intuitional strength through its members.

What does this pipeline look like? Regional geographic participation, chapters, conferences, networking, drive-in workshops, toolkits, certifications, research, codes, leadership academy, job listings, facilities journals, trade books, metrics, and more. In other words, opportunities for growth.

But the catalyst for all of these opportunities can be summed up in the title of a recent article in *Facilities Manager* magazine: "Membership...It is Really Everyone's Responsibility." (Lisa Potter, November/December 2012). Membership is the privilege that allows us all of these unique chances to gain from APPA's leadership opportunities.

CHANGE

APPA membership and participation is the first opportunity we have to keep job knowledge current and develop

strategies to stay focused while planning for tomorrow. It's true that we still have campuses with 100-year-old buildings standing tall. But technology has changed many facets of the facilities profession.

Perhaps you saw the Super Bowl commercial mocking news commentators who 20 years ago asked what the Internet is and what the "@" symbol means. Can you imagine performing your job, going out to dinner, looking up a travel destination, much less seeking advice to solve a facilities problem today without the Internet? Understanding how the Internet continues to change facilities drives APPA leadership training, to ensure you stay on top of your game.

THE APPA SURVEY

What will tomorrow's membership look like? APPA recently asked this question via survey to our members. The survey results showed strong support for current opportunities, as well as how to develop new opportunities to propel us forward.

First, the survey showed that *conference educational sessions* internationally and locally are offering us best practices that we are frequently using to solve real issues. This saves us time and resources while providing us a known pathway to success.

Second, *networking with members* offers us chances to explore new issues and gain direct responses from peers, professional vendors, and other members



who are resolving complicated problems just because they have met together.

Third, *mentoring* with individuals regardless of experience level builds our character, develops our knowledge, and simply allows us a knowledgeable source of information when needed.

APPA has allowed us to be recognized for what we do well—train and develop facilities industry professionals for the past 100 years. Moving into the next 100 years will require our members to stand up, participate, join in the conversation, and assist in building the pipeline for tomorrow's opportunities. Your APPA membership is a privilege, so utilize it fully to grow, and assist the next generation of leadership to grow as well. ☛

Bob Andrews is director of facilities management at California State University East Bay, Hayward, CA. He can be reached at robert.andrews@csueastbay.edu. This is his first article for *Facilities Manager*.



APPA's Facilities Drive-In Workshop offerings are an excellent way for APPA member institutions to encourage networking and professional development among educational facilities professionals within their local vicinity. These workshops are ideal for professionals who might not normally have access to training and professional development opportunities, due to operating budget restrictions or similar constraints and are a great way to introduce these professionals to APPA, its regions, and chapters.

How are APPA's Drive In Workshops Planned and Organized?

Each workshop is organized with the support of APPA, an APPA Business Partner, and a host educational institution.

Responsibilities of the Host Institution:

- Provide adequate meeting space plus tables and chairs (conference room plus adjoining registration area, as well as separate seating in adjoining area for sponsored luncheon).
- Supply audiovisual equipment (typical requirements are a podium, one or two mics, a projection screen and LCD projector).
- Arrange for parking if needed for attendees.
- Provide menu options to the sponsor (if the host location site has a kitchen or works with required caterers). The sponsor picks up the cost of lunch and all breaks.
- The person coordinating on behalf of the host institution (typically the institution's facilities officer) is present during the workshop to welcome attendees and provide some introductory comments on APPA.

Responsibilities of the Sponsor:

- Works with APPA and the host institution to identify suitable session content and speakers, and firms up the program. This also ensures that the content is fully educational in nature, i.e., does not advocate a particular product or service.
- Manages on-site registration on the day of the workshop, distributes badges and distributes/collects evaluation forms.
- Pays sponsorship fees, cost of food/beverage at the workshop.

Responsibilities of APPA:

- Manages event promotions (produces flyer, email invitations and distributes these promotions).
- Creates list of prospective attendees (from both APPA member institutions and prospective institutions). Shares this targeted attendee list with the host and the sponsor.
- Creates an online registration link and sends regular attendee registration reports out to the sponsor and host prior to the event.
- Works with host institution's facility officer to prepare any comments, supporting materials, slides describing APPA, benefits of becoming involved with APPA, etc.

For more details about sponsoring or hosting an APPA Drive-In Workshop, please contact APPA's Professional Development Manager, Corey Newman at corey@appa.org.

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Defining a

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FM Professionals

By David Isaacson



The human side of facilities management is partly about recognizing and fostering the facility management professional's personal career goals. Facilities managers (FMs) need to focus on how they can grow and succeed, and that can be driven by how they position themselves as a strategic resource within an organization. It's also about recognizing that FMs are in a customer service business—the building occupants, whether they are students, faculty, or staff—are the customers, and it's critical to understand their specific needs and how the facility supports their objectives.

These two aspects go hand in hand, and this article will address how understanding and working with facilities users can help facilities managers become more strategic and advance in their careers.

Facilities management (FM) is about much more than just maintenance. Consider career goals within the staff.

CAREERS IN FACILITY MANAGEMENT

There are a range of job titles and skill sets that comprise the field of facilities management. Understanding the differences in these roles and what skills and experience are needed is essential to navigating a career path in FM. One way of assessing the field is to break it into two domains that tend to encompass the FM profession: Maintenance vs. Facilities. Although the titles may vary, they touch upon an increasing amount of common ground, and for those who want to grow their career, there are certain skills that can open up that career path.

The facilities management profession is perceived as inherently operational. Goals are defined in the short term (less than one year) and budget planning typically uses a past performance approach. But in modern management, the expectations are clearly more than just doing your job the way that it has been done before.

For instance, as construction projects get more complicated and buildings become smarter, the role of the facilities manager evolves from operational to strategic, and a new set of skills has become necessary in the managerial toolkit. A strategic and holistic approach, including decision making based on data and financial analysis, is necessary to take a facilities management career to the next level.

The future **senior facilities officer** must align the real estate and facilities strategy with the organization's long-term goals. In order to do so, this executive must be able to support decision-making processes with solid analysis and understand the financial impact of those decisions.

In addition to the technical expertise that the facilities manager acquires throughout his or her career, there are some distinct characteristics that organizational leaders expect from this executive:

- Leadership
- Financial and analytical capability
- Operational and performance analysis
- Strategic vision
- Communication and political skills

THE DAILY VIEW: MAINTENANCE ROLES

The view that a maintenance staff takes of a facility portfolio is short-term, with a focus on the daily tasks that must be completed. Those in the maintenance field—with titles such as **engineer, technician, planner, supervisor, building manager, and janitorial and housekeeping** staff—are in the thick of the daily work of running a facility. Maintenance staffs serve as the firefighters of the FM world, responding to customer calls about leaky faucets, icy steps, and burnt-out bulbs. They are also responsible for scheduled daily upkeep of buildings, including cleanliness, trash removal, and groundskeeping.

The objectives of the maintenance department include cleanliness, safety, and efficiency for student customers, faculty, staff, and visitors. Technology in the maintenance realm may include computer maintenance management systems (CMMS), either as standalone or as part of an integrated workplace management system (IWMS). Work orders are just as often managed by spreadsheets or even Post-it notes.

The **building manager** position can serve as a gateway into managerial positions. Building managers generally deal with one facility and oversee employee and visitor safety, building maintenance, repair, and upgrades. They also ensure optimal and efficient facility operations, and comply with environmental, safety, and health procedures. Key responsibilities include coordinating building maintenance and repairs that affect normal building operation, updating occupants about electrical, water, and other service outages and scheduled shutdowns, and dealing with changes to space assignments in their facilities. Building managers usually oversee building security, implement emergency plans and, in the case of an actual emergency, assist emergency response teams in assessing building condition, locating missing personnel, shutting off utilities, and delivering status reports.

THE BIG PICTURE: FACILITIES MANAGEMENT

In the world of facilities management, the concerns are both short- and long-term. With titles like engineer, planner, analyst, manager, director, and vice president, the FM team must be concerned not only with serving staff and guests, but also reporting to executives. Facilities managers typically find themselves between worlds. One minute they are presenting capital budget requests to the chief financial officer, and the next they are in a basement examining a busted boiler.

FMs usually deal with current and deferred maintenance, new construction, and capital investment projects—including budgeting for all of the above. Their objectives include spending an

annual budget efficiently, saving the hospital money on projects, and complying with health and safety codes, minimizing risk to people and the organization. Some FMs employ technology to become more successful in their daily tasks and long-term planning. This technology can range from basic spreadsheets to CMMS, IWMS, and facilities capital planning solutions.

A typical role in FM is that of **facilities manager**. Facilities managers are responsible for the management of services and processes that support the core business of an organization. They ensure that an organization has the most suitable working environment for its employees and their activities. Duties vary, but facilities managers generally focus on using best business practices to improve efficiency by reducing operating costs and increasing productivity. This is a wide field with a diverse range of responsibilities, which are dependent on the structure and size of the organization. Facilities managers are involved in both strategic planning and daily operations, particularly in relation to buildings and premises.

Responsibilities include:

- Procurement and contract management
- Space management
- Oversight of building and grounds maintenance, housekeeping, catering and vending, health and safety, security, and utilities and communications infrastructure

Another role, the **vice president of facilities management**, often has direct reports and responsibilities across a variety of disciplines, including operations and maintenance, asset or infrastructure or facilities management, real estate, and sustainability, which includes energy or utilities management. Other departments may include construction and design, or even planning. Technology plays an increasingly important role, and some facilities departments have their own technology staff in support of FM systems, CADD, GIS, and desktop services. The vice president of facilities management may roll up under a variety of departments, including finance and operations, depending on the organization.

There's also an evolving FM role of the **senior facilities officer**. This new position, ideal for any organization that wants to manage their facilities strategically, combines business acumen, financial skills, facilities expertise, and the ability to build effective internal coalitions with the organization's key groups and business units.

The senior facilities officer uses this mix of skills to establish multiyear facilities capital planning and management programs that deliver focused, tangible benefits to the organization: lower risks, reduced costs, and improved customer satisfaction.



FOUR ACTIONS YOU CAN TAKE TO ADVANCE YOUR CAREER

So where do you start to take control of your career and become more valuable to your institution, organization, and to yourself? Regardless of background and skill set, there are specific actions that anyone can take that will open up opportunities for advancement in the FM field:

- Understand the Business: Speak the Lingo
- Keep Your Skills Current: Get the Credentials
- Network: Think Organizationally
- Become More Strategic: See the Big Picture

Facilities professionals can advance in their careers by acquiring skills both inside and outside of the technical FM arena, building effective working relationships with key groups across the organization, and adopting a proactive, programmatic approach to facilities capital planning and management.

ACTION 1. UNDERSTAND THE BUSINESS: SPEAK THE LINGO

The first action is to understand the business you are in. If you don't know what value your company brings to its customers, then how do you know you are doing the right thing? How do your colleagues describe the business? Understand the terminology, financials, business, and facilities. This will help you communicate with your peers and be in alignment with their objectives.

Once you have a good handle on the business, then you are in a position to make recommendations on how facilities can support the organization's mission. Be seen as a partner in helping the business reach its goals, and you will be involved in decisions about facilities before they are made. You will be able to show how you contribute to the bottom line.

ACTION 2. KEEP YOUR SKILLS CURRENT: GET THE CREDENTIALS

This is not just about understanding the latest equipment and controls used to manage buildings, although this knowledge is important. As you better understand the business, you also need to understand how it is measured. What metrics are used by the organization? What are the financial implications of decisions that are being made? Can you show how your performance contributes to the organization's success?

Take financial courses; get your MBA. Being a businessperson, not just a mechanic, will make you more valuable to your current and future employers. But don't ignore your technical skills. Master domain knowledge. Get credentials in the FM field (e.g., technical degrees, certifications, professional association credentials such as APPA's EFP or CEFP) to go along with business knowledge. Embrace new FM tools, and get comfortable with emerging technologies (e.g., mobile data collection).

ACTION 3. NETWORK: THINK ORGANIZATIONALLY

Everyone talks about how networking can help you find that next job. But networking is more than just making a career change. Start within your own organization. Build relationships with the business owners, and you become a team player, a part-

ner in their business—not just someone who reacts to problems. This goes back to the first action, understanding the business. How can the facilities team help the business meet its goals? Whether it is through improving production, providing a better environment for learning, or upgrading research capabilities, the facilities manager can add significant value to decisions being made about the buildings. However, if you don't know what's going on, you will never have the opportunity to add value.

Of course, networking outside your organization is also important, but not just for changing jobs (though this is one of the best ways to find a new position). Networking with your peers can shed light on new approaches to solving problems. Share industry best practices and you might find new techniques to leverage for your organization. Others can also learn from you, and you can quickly be recognized as an FM expert. Professional development programs such as APPA's annual conference, Supervisor's Toolkit, the Institute for Facilities Management, and the Leadership Academy provide ample opportunities to network with your colleagues.

ACTION 4. BECOME MORE STRATEGIC

Are you the first person to get called when there is a problem—too hot, too cold, something spilled—but the last to hear about plans for the business and how it will impact your facilities? Are you always trying to justify your budget or even your department as a whole?

Too many FM professionals are considered as an afterthought by their institution or business. But a key to advancing is to be seen as strategic and valuable to the organization. You can do this by understanding the organizational impact of facilities decisions now and in the future. If you have effectively networked within the organization, you can understand the direction the business is heading. Then, you can make recommendations that will have a direct impact on the bottom line. This allows you to demonstrate the return on investment that executives and the organization as a whole will gain from strategic decisions made about your facilities.

SUMMARY

There are a number of actions you can take to enhance your career with your current or future employer. Becoming more strategic and being a team player allows you to be seen as a partner in the business rather than just Mr. Fix-it or Ms. Cleanup. By being connected throughout the industry, you can bring innovative solutions to bear on existing and future problems. By demonstrating value to the organization, you become a key participant in business decisions. More important, you enhance your value, your bottom line, and your career. ⑤

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Kristina Anderson, Virginia Tech Survivor & Founder, The Koshka Foundation for Safe Schools



Frank DeAngelis, Principal of Columbine High School (Retired)



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BIG BROTHER III GAMES ON CAMPUS

By Richard L. McDermott

I was watching a TV episode of *Big Brother* last summer, observing how a dozen or so “cast” members lived and worked with each other over the course of three months in the confines of the Big Brother House and on our TV screens. Somehow it all seemed too familiar. I kicked it around for a while, and then it dawned on me—I had played a kind of *Big Brother* game several times in my university career. How? By being part of an informal organization that was in a contest with a rival informal organization, each person making and breaking alliances to further their own agendas. And one thing I was sure of, I was probably not the only one who felt a sense of familiarity.

I checked the Internet and found a wealth of information on the routine aspects of informal organizations. Most of it sounded like this:

Informal organizations benefit the organization in many ways. They help in the development of an effective organizational system and reduce the workload of managers. Informal organizations also provide employees with an outlet to express their anxieties and problems, improve job satisfaction, and reduce employee turnover.

Everyone knows that this is true. But did you know that when informal organizations go bad, they can turn into an episode of *Big Brother*?

Although this information is available in a corporate setting, there is not much known about

it in the nonprofit world. This is surprising given that it is on the large, nonprofit university campus that the games can be of a higher order than almost anywhere else. So it is important to discuss the issue, especially when there are career implications based upon how you choose to play.

First let's define some terms.

INFORMAL ORGANIZATION (IO)

A network of personal and social relationships (alliances, cliques, friendships) that arise as people associate with one another in a work environment. The communication channel is the grapevine.

HIGH CONTEXT

A high-context setting is one in which key people on campus know you and your values. They know you well enough to reject

a lie about you. That's very important, because in the game of *Big Brother*, lying is the common currency for gaining advantage.

LOW CONTEXT

A low-context setting is one in which key people on campus do not know you or your values. They do not have enough personal experience with you to immediately know something is a lie. And, they will believe false information until it is replaced with facts.

BROAD SET OF RESOURCES

Beyond the funds in your annual budget and the people in your department, this includes everything tangible and intangible given to you by your institution, including your administrative influence and decision-making authority.

BALANCE POINT

An ideal position in which resources are balanced between institutional and personal priorities.

FACILITY MISMANAGER

A facility mismanager uses institutional resources to support their personal career ambitions before considering institutional priorities.

There are several types of informal organizations. Let's draw a distinction between Beneficial Informal Organizations (BIOs) and Destructive Informal Organizations (DIOs). Informal organizations become DIOs when a facility mismanager joins up with other “birds of a feather.” A DIO typically serves a leader who has taken the position that “All my dreams and ambitions need to happen here. I'm not going to seek out another institution where I can naturally achieve my personal ambitions.” Figure 1 displays a few common informal organizational types—most are beneficial, but at least one type...not so much.

Figure 1: Common Informal Organizational Types

BIO Focused on professional support <ul style="list-style-type: none">• Positive• Colleagues help you with getting along in the system, with how to continually grow and get better at what you do, and how to be ready for the next career step.	BIO Focused on the highest university priorities <ul style="list-style-type: none">• Positive• My highest priority is on how well we can accomplish, promote, and develop the interests of the university. When we leave, the university will be a better place than it was when we arrived.
BIO Focused on solving common problems <ul style="list-style-type: none">• Positive• The formal organization is not set up to facilitate processes and get things done. So, informal networks fill in to make things work (e.g., when you need X, just call Joe over in the “Y” office).	DIO Focused primarily on personal priorities <ul style="list-style-type: none">• Negative• What is in the interest of the university is secondary. My title, pay, prestige, and most of all power, are paramount. I will break the rules to get what I want.

FIRST STEP TOWARD ENDING UP IN A DIO

The first step in becoming a DIO member is to be unbalanced in your allocation of resources. Everyone benefits when we are close to a balance point (diagram below). Institutional priorities are in the foreground. Personal development is supported by the institution, but in a background position. If a facility manager is too far on the plus side, there are no resources for personal growth and development. This will hurt both the individual and the institution. If a facility manager is too far on the minus side, they are a mismanager. A -5 manager is a prime candidate to form a DIO.



The late Peter Drucker is an ideal reference for avoiding mismanagement in the nonprofit sector. He hit the heart of the matter with statements such as, “It is not only important to do things right, it is important to do the right things,” and, “There is nothing so useless as doing efficiently that which should not be done at all.” In the 1980s I had the pleasure of talking with Drucker about facilities management on a university campus. At the time, I was taking a new position at a large, naturally low-context campus, and I was tracking down Drucker’s latest recorded session on management in the nonprofit sector.

I talked with his Claremont office about placing an order, and they said the session was not complete and ready for sale. However, they told me that Drucker was on vacation in the Rocky Mountain National Park, so why not call him and ask him about

it. I’m thinking—you’re kidding—just call up a luminary like Peter Drucker, interrupt his vacation, and say, “Hey Pete, I have a question for you.” But, they did give me his number, so I dialed it up. Drucker picked up the phone, and he was friendly and gracious. His natural mode of college professor talking to a student was evident. We talked for a half hour. I asked his advice. He gave it. I pass it along here. Drucker told me that success would center on communication. He advised me to set up a one-on-one meeting with key customers on campus on a regular basis. I should first ask them, “What do you need from me?” After that, I should tell them, “Okay, this is what I can do for you.” In this exchange, it’s helpful to remember another Druckerism: “The most important thing in communication is to hear what isn’t being said.”

These exchanges create realistic expectations. And, more importantly, they form high-context relationships between you and key members on campus. High-context relationships are invaluable when the *Big Brother* games begin. As an example, I once received a phone call from a professor who said, “Rich, I’m calling to tell you what I heard someone say the other day, and I know it is not true.” That’s the fruit of a high-context relationship.

SECOND STEP TOWARD ENDING UP IN A DIO

Everyone has a few beefs about their workplace. So it’s easy to feel a degree of gravitational pull toward the camaraderie of other disgruntled employees. That’s normal. But when the malcontents evolve into a nascent DIO, they have crossed over into the danger zone.

It is mystifying how DIOs, after forming up so they are fully recognizable, can survive for an extended time on campus. Drucker has the answer. He has pointed out that nonprofits have a weakness that can breed mismanagement. Nonprofits do not have the discipline of going broke. A mismanager in the private sector will likely go broke. A mismanager in a nonprofit setting will likely be given a new budget at the beginning of the next fiscal year, and off they go into a new year of misadventure. Since nonprofits are without the self-controlling mechanisms of free enterprise, we owe them an extra measure of fidelity in managing resources under our direction. Drucker’s advice is to scrub through your organization on a regular basis to check for alignment to the institution’s primary mission.

A facilities management department can usually segregate its responsibilities and activities into primary and secondary levels. Look hard at the secondary level. That is where a separation



"The most important thing in communication is to hear what isn't being said."
—Peter Drucker

from the institutional mission usually begins. Having clarity on the secondary level is also helpful in tough times, because that is where to cut the budget if necessary. This process prevents resources slipping over into misbegotten priorities. Being able to mismanage and not be punished for it is the fertile ground that DIOs grow upon.

FINAL STEP TOWARD ENDING UP IN A RIVAL DIO

Eventually, a leader arrives to gather up fellow mismanagers in the cause of taking something away from the BIOs, the Beneficial Informal Organizations. A rival DIO is formed, and the *Big Brother* games begin. The spoils a DIO leader seeks are the usual ones—title, power, or salary. Thus, once operating, they can be spotted a mile away and avoided like the plague. Some telltale phrases that let you know you are talking with a DIO member are:

- **"I don't understand."**—response to a common sense proposal.
 - *Translation:* Oh, I understand—but you have not yet said what I want to hear, so keep talking till you do.
- **"We are going a different direction."**—response that is contrary to logic and good sense.
 - *Translation:* A hidden agenda is afoot.
- **"You're just pulling a power play."**—response to being caught in a misadventure.
 - *Translation:* I can't win the matter on the facts—so let's move onto to another field of play, namely my nefarious motivations.
- **"This is the first time I've heard of this."**—response to being presented with the facts of a misadventure.

○ *Translation:* Well, really I am fully aware—but I'm in a pickle here, so let's hit the restart button on the discussion with me playing the role of the "babe in the woods."

The competition phase of the DIO versus BIO is similar to the *Big Brother* game on TV, and the outcomes can be similar. Harm to working relationships is predictable; most people are not done in by their bosses—rather by their colleagues. The worst of all outcomes is when a DIO persists long enough to

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Hatfield Clan in 1897.

create a “Hatfields versus McCoys” condition. The original issue may not even be remembered—but long live the DIO, and down with the rival BIOs. Institutional priorities and even individual career growth are sacrificed to serve the Destructive Informal Organization.

SAFEGUARDS AGAINST DIOS AND THE BIG BROTHER GAMES THEY SPAWN

1. Manage your Broad Set of Resources to remain at a Balance Point.
2. Meet regularly with key customers to align expectations and priorities.
3. Never let your relationship with key people on campus become low context.
4. Attend to the extra measure of fidelity we owe while managing in the nonprofit sector by regularly scrubbing through alignment of resources to the institutional mission.
5. Avoid being drawn into someone else’s DIO *Big Brother* game, remembering the advice of Abraham Lincoln: “Quarrel not at all. No person resolved to make the most of themselves can spare time for personal contention.” ☹

Rich McDermott is vice president for facilities at the University of Texas Health Science Center at Houston. He is the 2014 recipient of APPA’s Rex Dillow Award for Outstanding Article in *Facilities Manager*, and he can be reached at richard.l.mcdermott@uth.tmc.edu.

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By Sam L. Polk Sr., Ed.D.

An African American EXPERIENCE *in APPA*

I was born in 1945 in Jackson, Mississippi, during a period of social segregation. I grew up during the challenging years of profound racial injustice and inequality, and participated in the struggle to win the rights we now share in America. I was motivated by leaders who gave of themselves for the good of others: Dr. Martin Luther King Jr., Medgar Evers, Benjamin E. Mays, W.E.B. Dubois, and Booker T. Washington.

We have come a long way from the troublesome days of the 1960s, but even today many challenges still remain. When I became convinced that APPA was the place for my success in the facilities management field, I wanted to see African Americans and more HBCUs (Historically Black Colleges and Universities) take advantage of these opportunities.



Left: President Chris Ahoy presents Sam with the 2007 Meritorious Service Award.
Center: Sam studied drafting at Jackson State University. Right: An early portrait.

During my time in high school and college from 1960 to 1968, I took industrial arts courses along with languages, science, and math. Subsequently, I earned a B.S. degree in industrial arts education at Jackson State University (JSU) in Jackson, Mississippi. It was a common practice for my professors to use the campus as a teaching laboratory, overseeing classes in studying, repairing, and constructing physical infrastructure and facilities. This training afforded me a great understanding and appreciation of the built environment and its importance to the educational mission of the university.

In 1973, following tenure in industry as the first African American design draftsman for the Shell Oil Company in New Orleans, and a three-year stint in the U.S. Army as a map compiler, I was offered a job as instructor of industrial arts drafting at Jackson State University. In 1974, I became coordinator of JSU's new design construction technology program. Following the example of my professor and using the campus as a teaching laboratory, I was commissioned to design and construct, with the help of students, the Centennial Capsule Monument and Centennial Tree and Bell monuments, and also surveyed utilities, walks and roadways, landscape structures, and scale models of four different periods of the university's development. Serving on building committees and project overviews allowed me to gain even greater knowledge of the campus physical plant.

I earned the Doctorate in Education from Mississippi State University in 1986, specializing in vocational education and educational leadership. In 1988, I was offered the position of director of physical plant and assistant professor of technology at JSU. In 1991, I accepted the position of director of facilities management at Tennessee State University in Nashville. From 1988 to 2008, I participated in APPA and introduced African

Americans and other groups to APPA, helping to establish an incentive for others to continue this initiative for diversity.

INTRODUCTION TO APPA

In July 1988, I attended my first APPA meeting, the 75th Annual Meeting in Washington, D.C. More than 1,400 members attended APPA's first meeting in the nation's capital. Special highlights included a keynote addresses by Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching, a series of workshops on critical issues in higher education, and a presentation of the results of the joint APPA/NACUBO study of capital renewal and deferred maintenance at our nation's colleges and universities.

As a new director, I was extremely impressed with the educational sessions and confident that I had found my go-to resource for assistance. The one element that troubled me was the small number of African American participants. I could literally count these members on one hand. However, it was clear that through its 75-year history, APPA had kept up with the growth of colleges and universities and often led many changes. It was also evident that APPA's greatest accomplishments had been the ability to grow professionally, keep pace with new technologies and procedures, and direct more revenue to the facilities function.

Both the presence and participation of African Americans at the conferences left much to be desired. However, I was determined to see what I could do to change this situation. The words of Mahatma Gandhi became my inspiration: "You must be the change you wish to see in the world."

I understood that the racial issues needed to be addressed, even though approaching them might be difficult. My central concern was whether minority facilities professionals knew about APPA and how they could be encouraged to share their information in this forum. I was determined to act on this concern. I also knew that I had to take the lead.

Following the 1991 conference in Orlando, Florida, I sent a message to HBCU institutions and individual African American leaders as soon as I got back to my office. I offered to assist them to learn more about APPA as a valuable resource for campus facilities and to help them become more involved in the organization.

Over time, we made substantial progress in demonstrating the potential of *all* APPA members. Moreover, we had the opportunity to illustrate how African Americans can encourage even more African American participation in the organization.



Left: Sam served three years in the U.S. Army.
Right: Sam and his father in 1950s Mississippi.

ELECTED FIRST AFRICAN AMERICAN TO THE SRAPPA BOARD OF DIRECTORS

In 1995 I joined the SRAPPA Board of Directors in the office of newsletter editor. While in that role I conducted a study of the participation of HBCUs in APPA and the six APPA regional associations.

My report of this study was published in *Facilities Manager* magazine (January/February 1999). Following are a few of the results for the Southeastern region:

- There were 80 HBCUs in the 11 states in SRAPPA; of these, only 19 HBCUs held current membership.
- Of the HBCUs responding to the survey, 30 percent had little or no knowledge of SRAPPA.
- Fifteen percent of the HBCUs indicated that the lack of black officers had a great effect on continued membership; 20 percent were greatly affected with the low number of blacks in attendance at annual conferences; and 17 percent wanted more HBCU issues addressed.
- Fifty-seven percent said black leadership must be increased, and 64 percent said recruitment of HBCUs was necessary. Sixty-eight percent indicated that they must determine the value of involvement in APPA.

I published another article on HBCU institutions in the March/April 2005 issue of *Facilities Manager*.

ELECTED THE FIRST AFRICAN AMERICAN VICE PRESIDENT FOR EDUCATIONAL PROGRAMS

I served on the Education Committee for a number of years, working closely with Jim Roberts, then-Vice President for Educational Programs. Jim and I had served on the SRAPPA Board of Directors for a number of years. Jim's term as SRAPPA president was coming to an end and he urged me to run for the APPA vice presidency. I recall saying to Jim, "Do you think APPA is ready to elect an African American as Vice President for Educational Programs?" Jim said, "Sam, it's about what you can do for APPA and the Education Committee, and I don't think the fact that you are an African



Having fun at SRAPPA; from left: Bill Elvey, Bob McMains, Sam, Mike Davis, David Gray, and Phil Cox.

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I was confident of my abilities and knew that securing this position would open a great opportunity to work on diversity within the APPA governing board. I was notified by the nomination committee chair that the APPA membership had chosen me as the new vice president—the first African American to serve in this capacity.

NOMINATED FOR THE OFFICE OF PRESIDENT

In accordance with my plans to retire within five years, it was critical for me to accept the APPA nominating committee’s suggestion to run for APPA’s President-Elect. Over the years, I have paid close attention to the requirements for this office: credible service, proven leadership, and commitment and dedication to APPA’s regional and state chapters. Throughout my association, I felt that my background was equal to any other member who was elected president.

My platform was straightforward. A representation of this message follows:

As President-Elect I will continue the initiatives of past presidents and lead a three-year effort to 1) achieve true diversity, 2) actively recruit all institutions of higher learning, 3) make learning, teaching, and service opportunities more accessible to our diverse membership, and 4) ask all members and elected officials to give their best in service. These targeted goals are designed to reenergize the membership and bring cohesion among members

and elected officers to enhance success in implementing APPA’s key strategies. When they are accomplished, APPA will be positioned to better meet the changing needs of higher education facilities professionals.

It was my goal to engage the membership, especially elected officers, to a renewed sense of ownership of APPA. If we own it, we’ll love it; and if we love it, we’ll work for it. The four goals I listed in my platform statement remain critical for APPA’s continued success. I was unsuccessful in my bid to be APPA President, and I felt that APPA had missed a significant opportunity to advance the cause of diversity.

SUMMARY

When I started my facilities management career at Jackson State University, the challenge was simple: to motivate and improve the technical capability of staff to provide clean and safe facilities, to oversee renovation and capital construction, and to accomplish these ends with meager funds. Nothing was simple about accomplishing that task.

While in the education arena, I knew there had to be a professional organization for those serving as educational physical plant administrators. I learned about APPA and was confident

“It was my goal to engage the membership, especially elected officers, to a renewed sense of ownership of APPA. If we own it, we’ll love it; and if we love it, we’ll work for it.”



Above: Sam and his Tennessee State University leadership team.
Right: A formal portrait while at TSU.



that my continued association with APPA would help me get what I needed to accomplish the mission of my university's president.

In 1988, when I got involved with APPA and SRAPPA, I found what appeared to me to be "a good old boys' club." I could count the number of women and African Americans on one hand. This troubled me greatly. As I began to reap the benefits of membership, I also accepted the challenge to do what I could to increase diversity, especially among the 105 HBCUs.


More than 25 years since my first encounter with APPA and as facility director, I'm even more convinced that association with APPA, its regional associations, and the state and local chapters is essential for facilities managers.

As a member of APPA, an African American, and a representative of HBCUs, I felt a tremendous obligation to exceed normal expectations. I wanted to create pathways that would lead to greater HBCU participation, thereby leading APPA to a stronger future.

This article was written not only to highlight one person's professional path, but to provide a base for continuous growth and advancement of diversity in APPA and its regional associations. This goal is not impossible; in the words of Tommy Lasorda, "The difference between the impossible and the possible lies in a man's determination."

APPA has afforded me an opportunity to assume leadership positions, present papers at annual conferences, and receive recognition for services, publications, and research projects. All of this allows me to have a keen sense of self-worth. In a way, it puts a stamp of validation on what I did as facility professional. APPA helped me to be considered at my university not just as a provider of services, but as a partner in the educational, research, and service missions to the university.

A successful and inclusive APPA must be judged not only by the caliber of officers, the quality of services, and the size of its membership, but by the commitment to diversity from top to bottom. Our promotion of full participation for African Americans in APPA

was continuous and significant. Although much has been accomplished, the work is still unfinished. If these goals are to be fulfilled, they must be championed and fully embraced by all of APPA. 

Sam Polk is an APPA member emeritus living in Old Hickory, TN. He served as SRAPPA President and APPA Vice President for Educational Programs. He can be reached at sjpolk@comcast.net.

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My APPA Journey

and the Women Who Inspire Me

By Winnie Kwofie

On one of our early Saturday morning hikes, I asked my two female friends to describe the typical facilities management employee. Their response: “Tough, sweaty, macho guys with huge and rough hands, partially buttoned shirts and having a strong smell of coffee or tobacco.” Their description may have aptly fitted a facilities person many years ago, but to set them up for this article, I asked, laughing sarcastically, “Really?” Thrown off balance, they were curious to know what contrary description I had up my sleeve. They were totally impressed when I revealed that I was planning to share my experience in the male world and my admiration for three inspiring women leaders in facilities.

According to a recent article published in the *McKinsey Quarterly*, there are very few women leaders in the C-suite today and even fewer accomplished women are on the path to the C-suite, although a higher percentage of entry level employees are women. As a 100-year-old organization representing a traditionally male-dominated profession, APPA should be celebrating this crack though the glass ceiling with its four elected women presidents and a number of women leaders in its member institutions. Nevertheless, the gender disparity in leadership and the path to leadership positions continue to be a challenge in facilities.

BE DIFFERENT AND SEEK TO LEARN MORE

My experience as a female engineer working in facilities has been as challenging as the experiences I encountered as one of only two young women in a class of boys and in my working life as a design and consulting engineer. To survive masculine intimidation, I was determined to outsmart my classmates by acquiring early work experience.

At the end of my first semester, I interned with a prominent all-male civil engineering firm whose CEO was an avid advocate for practical training for students. He gladly assigned me a seasoned professional engineer,



Mr. Laing, as my mentor. I credit my survival and resilience to Mr. Laing, who was an anchor to my learning experience even when I made mistakes. In the narrow perspective of “macho” professions, women are “always” expected to make mistakes and then quit out of frustration. I was lucky because Laing was an outstanding mentor who rebuilt my confidence when it was bruised.

SHAMELESSNESS IS A GREAT LEADERSHIP SKILL

My first project site experience was on a ground-level water storage tank installation in an earthquake-prone area. My tasks were to observe the construction activities and provide feedback to the project lead. The site’s “macho” elements in-

cluded a Chinese contractor, a chauvinistic rebar crew, and a British project engineer. After I was introduced and alone on the site, I felt ridiculed by hostile gazes that later escalated to the following provocative actions: poor concrete mix, rebar out of specification, and placement of damaged waterproofing membranes.

Since instant messaging and cell phones did not exist at the time, I had to decide between taking a 15-minute walk to alert the lead, or reasoning with these fierce-looking men. I chose the latter. Feeling cautiously and naively confident, I headed first to the rebar crew and before I could speak, they



FULL DISCLOSURE: THE BASIC PHOTO OF MARY, WINNIE, AND LANDER WAS TAKEN AT APPA'S THOUGHT LEADERS SYMPOSIUM IN APRIL; JERI WAS DIGITALLY ADDED LATER.

A woman and her APPA mentors. From left: Mary Vosevich, Winnie, Lander Medlin, and Jeri King.

intensified their blunders to increase the number of rebar that did not meet specifications. Their chauvinism was laced with profanity, increasing my frustration.

Quietly, I walked away to alert the project lead, who graciously sent me back for more torturous observations. But my persistence paid off because the hostility waned over time. My experience from this incident and many others revealed that the mere sight of a woman in charge can provoke defiance and derogatory actions, requiring the woman to prove her ability to deliver. For example, to respond to a contractor's refusal to take her stop order, a female colleague (who was the lead for a major road project) bravely stood on the contaminated section of the road with a red flag, yelling to prevent trucks from spreading imported soil, while ignoring the ridicule she faced. Her actions showed that boldness is the key to overcoming humiliation.

I landed in educational facilities by accident. My interest began when I stepped up to deliver a capital construction project on a critical path. Unknown to me, the facilities department was not actively engaged in the process, so I solicited their involvement right away. I was astonished at the expertise of the facilities team, and it was this exciting interaction that led me to my current position at the University of California San Francisco (UCSF) as an advocate for facilities on all capital projects. But my first two years in facilities were quite daunting, and I was ready to move back to my previous career by the end of the second year.

DRAW FROM THE PAST

Since mentoring had served me well in the past, I eagerly solicited a mentor in another facilities organization. My mentor was empathetic and practical, and he provided the compass that helped me survive. I was not yet involved in APPA, but was participating in a professional engineering organization having few female members. The medical research environment at UCSF was also new to me, and I was fortunate to find a woman mentor there. I cherished both mentors—while they had different leadership styles, they both advocated staff engagement, development, advancement, and diversity. For me, they provided a balanced perspective.

The poignant lesson I learned about the difference between my prior and present experience in facilities was the length of time I spent interacting with the same group of men. Most of my design and capital projects were completed within three years or less, offering me some wiggle room to unwind and allowing me to adapt and cope.

The environment in facilities, on the other hand, is more stable with cultures that are usually engrained with chauvinism. It consists of networks of “boys’ clubs,” entrenched with loyalty and mutual benefits that tend to serve members well in lobbying for advancement and promotion, presenting a challenge for any woman hoping to stay in facilities and or navigate to the top.

HUNT FOR COURAGE, APPEAL TO THE EMOTIONS

Obviously, we need women leaders as mentors and role models. This is a call to action that should include a dialogue on the state of affairs for women in the profession today, on male perceptions, and on the female fear of failure. The desperation to deliver is driving most women leaders to become overly entangled with meeting every expectation—a “make everybody happy” mentality.

Yet the boys’ club goes easy on its members and still dominates this profession. Our starting point is to appeal to our male colleagues as mentors and sponsors and engage in exploring ways to make the environment conducive for women to thrive. Nevertheless, this profession is starving for women role models and sponsors to help retain and attract more women.

FIND ENERGY AND EXCITEMENT THAT INSPIRES

I had the pleasure of meeting three inspiring and remarkable women leaders on my brief APPA journey. It was during my third year in facilities that I met Lander Medlin, APPA's executive vice president, at my first PCAPPA conference in San Francisco. Like the Oprah Winfrey of APPA, Landers gives everyone a big welcome smile and ample hugs. Her energy was contagious, her passion was transforming, and she had the right demeanor to provoke laughter while keeping you at ease.

Lander spoke about the profession in a way that got me thinking. Since I was looking for ways to sustain my interest, this was an “aha” moment for me to explore such opportunities. Lander exhibited great mastery on the subject of facilities, highlighting the interconnections and the opportunities APPA offers to assist professionals.

During the breaks between sessions, she walked across the hall, stopping to high-five many and to share a laugh. For newcomers, such an encounter could be the game changer when the road seemed bumpy. Lander demonstrated a leader's ability to fill the room and to create a safe and trusting environment for all. It was this experience led me to get involved with PCAPPA, and I'm totally supported by my fellow board colleagues.

CALM, FOCUSED HUMOR

My first encounter with Mary Vosevich—past APPA President and now at the University of Kentucky—was in Denver at the PCAPPA/APPA conference. Her presidential theme was “Lift as You Climb,” a herculean task for women in a male-dominated world. It contradicted current opinions alleging that women leaders are less effective when they advance other women, or simply become a bottleneck for advancing other women. With her captivating sense of humor and calm delivery, Mary urged us to invest in others by enabling their success.

EVERYONE LOVES JERI

I have enjoyed my time on the APPA Information and Research Committee, led by Vice President Jeri King of the Uni-


versity of Iowa. With a smile, Jeri gives us the big picture and guides us through the details. She reminds us that in facilities, we are always responding to emergencies and we have less time to pause, take a breath, and ask questions. But her leadership influences our ability to think beyond the moment so we can set a more strategic, long-term approach. This kind of farsighted reasoning may seem daunting, yet it allows us to explore options for more effective solutions.

CAN APPA CHANGE THIS STORY?

APPA is a complex organization that is rapidly evolving. The keys to successfully leading such an organization will require diverse talents and the ability to lead across the gender aisle. With four past female APPA presidents, and when the United States may one day elect its first female president, the old story that women are not equipped to lead such complex organizations is no longer valid.

APPA can and should change this story by creating a pipeline to develop and advance more women. The facilities profession provides many avenues for such development, from the entry-level administrative, clerical, and business services positions

dominated by women to the technical positions dominated by men. The discussion should focus on the disparities in positions and technical skills and also highlight the opportunities available for developing great female managers and leaders to run an effective and successful organization.

The challenges most women encounter are the fear of stepping up to take on these leadership positions without role models to provide guidance. But APPA has a growing number of female role models that can be engaged to establish a best practice on this task. As a learning organization, this could be a great opportunity to work with our male colleagues on an issue that can transform this profession. Most of all, we need more women like Lander, Mary, and Jeri to lead the change. 

Winnie Kwofie is associate director, engineering and energy services, at the University of California San Francisco, and is PCAPPA's representative to APPA's Information and Research Committee. She can be reached at winifred.kwofie@ucsf.edu. This is her first article for *Facilities Manager*.

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Facilities Managers as Landlords

Know Your Tenants and Provide Better Services

By Joe Whitefield

Today's educational facilities management organizations do much more than keep the wires hot and the water cold. Our services contribute directly to fundamental institutional goals of education, recruitment, retention, and reputation. More and more, we are becoming an integral part of the learning environment of the campus.



Because of this, facilities management is often discussed in terms of stewardship. This consideration is useful and proper when evaluating the types and quality of the services we provide. It is important to remember that facilities management has always been a support enterprise. We design and construct buildings. Then we maintain and operate them to be safe, clean, and functional—*for others to use*. In essence, we serve the tenants who occupy and use our facilities and the public who visit various venues to attend events.

In addition to providing support, facilities management also retains the responsibilities of ownership. We must protect the value of the physical assets while operating them in accordance with applicable policies, procedures, and constraints. This calls for a unique sort of stewardship, one in which our role can take the form of a landlord, and the responsibilities of facility ownership are balanced with the demands placed on facilities to support their users.

This balancing act can be difficult. The challenge for all landlords is to specify and separate the requirements and expectations of the owner from those of the tenants. Let's look at a couple of keys to address this challenge.

KNOW YOUR TENANTS

Good facilities management begins with knowing your tenants. Who are they organizationally? Academics, Athletics, Student Services, Residential

Life, or others. For public institutions this has an important fiscal consideration in that education and general (E&G) facilities—classrooms, laboratories, offices, etc.—are supported from general funding sources. Facilities management organizations often receive annual budgets for the utilities, maintenance, and operations for these customers/tenants and provide them without chargeback.

Auxiliary enterprises and facilities—housing, recreation centers, parking facilities, etc.—are supported from supplemental funding sources such as fees or other revenues. Facilities management organizations provide the same utilities, maintenance, and operations to these customers/tenants with the cost of the services charged back to the customers. Make no mistake, “Who’s paying?” is a critical component in facilities management.

KNOW YOUR SERVICES

Good facilities management involves defining the basic services that are provided to the campus and distinguishing routine operations and maintenance (O&M) services from non-maintenance services and/or project work. This is especially important when addressing the budget and “who’s paying” questions. Basic O&M services are associated with utilities, cleaning, routine maintenance, and minor repair/replacement. Larger-scale maintenance may include a major repair that exceeds typical O&M budgets or even becomes a capital project.

Maintaining the integrity of the O&M

budget requires that O&M services be appropriately defined. For instance, under what conditions is office painting considered a maintenance activity versus a non-maintenance special project? What about cleaning services for week-end events? There are numerous activities that typically need to be reviewed for a maintenance or non-maintenance designation.

MATCHING TENANTS AND SERVICES

The goal is for facilities management to provide the required or requested services in an effective manner, considering all applicable policies, procedures, and constraints. Now that we have identified our customers/tenants and roughly categorized our services, we can play the matching game.

- **Landlord services**—facilities management provides O&M services to

E&G tenants. These activities typically have a predetermined quality level, frequency, and cost range (think APPA Level 2 custodial services for classrooms). These services are routine and recurring, tightly budgeted, and rarely involve a chargeback to the tenant unless specific cost centers have been established.

- **Extra services**—facilities management provides non-O&M services to E&G tenants, such as painting an office, adding technology to a classroom, or performing a small project. Their costs vary. In order to prevent subsidizing these activities, extra services should be charged back to the customer on a full cost recovery basis.
- **Work for others**—facilities management provides either O&M or non-O&M services to an auxiliary enterprise on campus. These enterprises

are established to pay their own way and, as such, are to be charged for any service they receive.

Facilities services should be about more than providing the facilities and utilities that make academic, research, and athletic endeavors merely possible—they should be about making the endeavors successful. Strained resources, aging facilities, and changing paradigms regarding facilities combine to challenge today's facilities manager in the areas of customer service and stewardship. One way to look at stewardship is through the lens of a landlord. Matching tenants and services establishes realistic expectations and leads to more productive customer relationships. 💰

Joe Whitefield is assistant vice president, facilities services, at Middle Tennessee State University, Murfreesboro, TN. He can be reached at joe.whitefield@mtsu.edu.



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Microgrid: Ability to Detach from the Grid

By Kevin Krause, P.E., LEED AP

A microgrid is a localized electrical network that allows campuses and other similar-sized districts to generate and store power from various distributed energy resources (DERs). Potential DERs include cogeneration as well as renewables sources such as wind turbines and solar photovoltaics. Balancing captive supply and demand resources—including thermal and electrical load—within its defined boundaries, this type of energy system provides resiliency. A microgrid is capable of “islanding” itself as needed or desired from the larger utility grid, for example during extreme weather events or at times when self-generation is more cost-effective. A smart interface allows power to be supplied to and/or received from the grid. A working microgrid typically includes distributed generation, storage, power electronics and, increasingly, smart buildings.

Distributed generation (DG) allows any combination of local energy sources (e.g., natural gas generators, microturbines, hydrogen fuel cells, solar PV, distributed wind, combined heat and power (CHP) cogeneration systems) to serve the loads of a campus, city, or other defined district. Often “greener” than the power produced by a traditional central power plant, DG is more efficient in transmission to its nearby served loads. Implementation of 15MW onsite CHP to supplement outside electrical utilities is a central component of

strengthening utility systems at the University of Texas Medical Branch Galveston (UTMB) in the aftermath of Hurricane Ike. CHP islanding capability will reduce the threat of hurricane disruption to UTMB operations. Fifty percent more efficient than conventional systems, UTMB’s two new CHP plants will also save approximately \$3 million annually, with a five-year simple payback.

As more and more DG sources connect to the grid and supply power,

ingly enable large numbers of DG sources to link to the grid through highly controllable power processors, allowing efficient and reliable distributed power delivery during regular grid operation, and powering specific “islands” in case of faults and contingencies, such as natural disasters. Power electronics facilitate the efficient and seamless conversion of DC to AC current and vice versa. One example of the scale of such power electronics are the multiple megawatt solar inverters

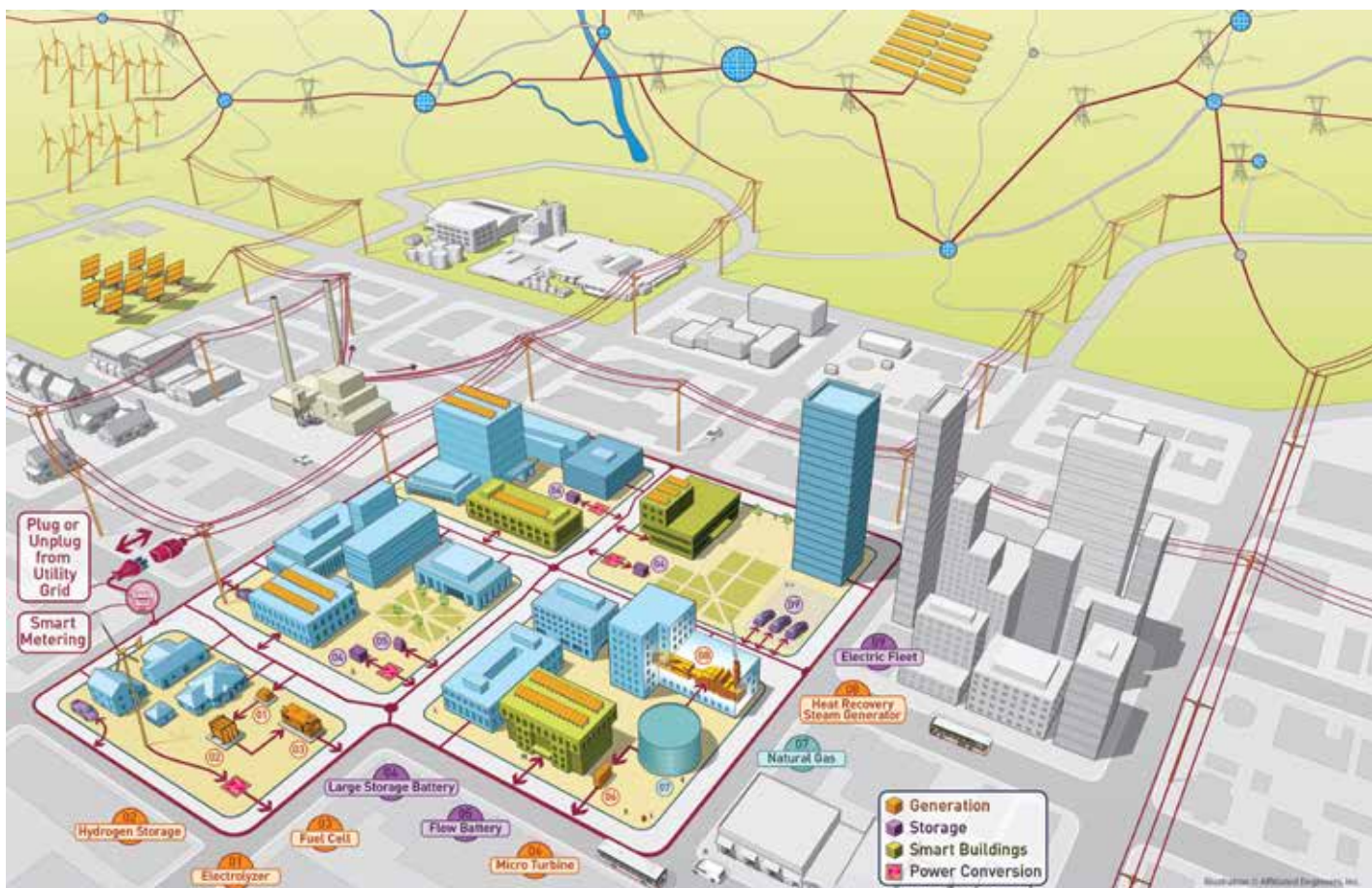
A MICROGRID IS CAPABLE OF “ISLANDING” ITSELF...FROM THE LARGER UTILITY GRID, FOR EXAMPLE DURING EXTREME WEATHER EVENTS OR AT TIMES WHEN SELF-GENERATION IS MORE COST-EFFECTIVE.

multiple forms of **storage** are a necessity to harness this power and ensure that loads can be served reliably at any time. Evolving storage options include flow batteries, which offer virtually unlimited longevity by pumping externally stored liquid (electrolytes) to create electrical current, and hydrogen electrolyzers, which convert electricity to hydrogen for storage. In turn, hydrogen can supply fuel cells and offers advantages over batteries that need to be electrically recharged. Smart vehicles and smart buildings that interconnect with the grid may also serve over time to store and supply power.

Advanced **power electronics** and communications technologies increas-

required for utility scale PV power stations installed in areas such as southern California. These inverters have been developed to maximize allowable DC string voltage and tested to meet the requirements of National Electrical Code (NEC) Articles 690.11 and 690.12 for DC arc fault protection and rapid shutdown, as well as IEEE 1547 standards for voltage and frequency response.

Smart buildings can improve the operation of a microgrid by which they are served. As load centers in a given locality, buildings that are technologically enabled to monitor their own energy consumption can be further enabled to reschedule certain power usage to



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An example of a microgrid.

off-peak hours, improving the overall efficiency of a microgrid. These “intelligent” buildings can also monitor and adjust building performance to reduce load and bolster cost savings.

Florida’s Santa Fe College (SFC) had an impressive history of year-to-year reductions in energy use intensity, but as the 24,000-student school reached the end of capital project improvement opportunities, they turned to smart building strategies—specifically, data analytics and visualization techniques—to further reduce consumption. First optimizing existing building automation systems, SFC added instrumentation and metering, established common data historian storage in an open database format, normalized at 15-minute intervals, and developed equipment-specific algorithms, rules, and queries to allow continuous analysis. Use of data visualiza-

tion tools to identify patterns and plot energy use intensity per day revealed imbalances and anomalies, providing a basis for utility optimization strategies. SFC credits data analytics and visualization with the 12 percent energy savings they have experienced over the two years since introducing smart building strategies.

At the forefront of research on microgrid and smart building integration is the U.S. Department of Energy’s Energy Systems Integration Facility (ESIF) at the National Renewable Energy Lab (NREL). The ESIF uses a megawatt scale research electrical distribution bus (REDB) as well as hardware-in-the-loop (HIL) prototyping to validate technologies and techniques advancing interconnection of distributed energy systems and the seamless integration of renewable energy technologies into the grid.

SFC’s consultants planned, designed, and engineered ESIF’s primary research areas and laboratory systems, focusing on the REDB interconnecting “plug and play” testing components, hydrogen research exploring simpler and more scalable energy storage, and fuel cell and cell component development. A safety- and data integrity-driven SCADA system (supervisory control and data acquisition) deploys hardware-independent software to govern the array of function-specific control systems and disseminate real-time data to principal investigators collaborating worldwide. 

Kevin Krause is a principal at Affiliated Engineers, Inc., Madison, WI. He can be reached at kdkrause@aeieng.com. This is his first article for *Facilities Manager*.



The Future for Gender-Neutral Restrooms

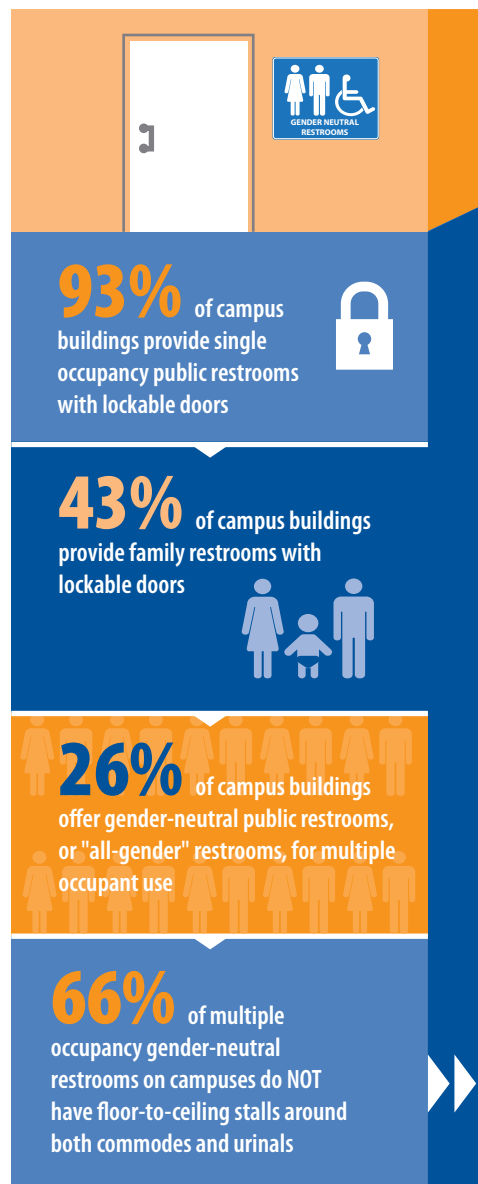
By John Bernhards

A number of colleges and universities are now establishing gender-neutral restrooms, by renovating existing facilities, making simple changes made to restroom signage, or both.

Gender-neutral bathrooms are commonly defined as single- or multiple-occupancy bathrooms with no gender distinctions. Such facilities are also commonly referred to as “all-gender” restrooms. There are more than 150 higher education institutions in the U.S. alone that currently offer gender neutral restroom facilities. Such restrooms are designed to welcome students of any gender and to alleviate uncomfortable situations for transgender students.

APPA SURVEY RESULTS

A recent survey among APPA member institutions was conducted by the APPA Standards and Codes Council, to establish some understanding of how college and universities are addressing requirements for all-gender restroom facilities. There were 217 responses received from the survey.



The vast majority of survey respondents (93 percent) indicated that their campus buildings provide single occupancy public restrooms with lockable doors. One-half of these same respondents indicated that their institution requires single occupancy restrooms in some or all of their buildings. In addition, 42 percent of these respondents shared that their institutions publish the availability of such restrooms on its college or university website.

When asked if their campuses offer “all-gender” restrooms for multiple occupancy use, 55 respondents (26 percent of total respondents) indicated that their institution offers such facilities. Of the 55, there were 14 respondents who shared that their campus gender restrooms have floor-to-ceiling stalls around both the commodes and urinals.

Roughly the same number of respondents shared that their institution created such restrooms by retrofitting

To learn more about APPA's Standards and Codes Council, go to www.appa.org/standards.cfm.

and converting what were previously identified as sex segregated restrooms. The performed retrofitting included adding or reducing the number of urinals and commodes. It also included the installation of floor to ceiling stalls, and changing the restroom signage to read "All Gender."

IBC REQUIREMENTS

The International Building Code (IBC) defines requirements for the fixture count (i.e. the number of commodes and urinals) in restrooms based on building occupancy, and also mandates requirements for single occupancy restrooms. Changes to the IBC are considered once every three years,

through a hearing and review process administered by the International Codes Council (ICC).

Public hearings were held in Memphis, Tennessee this past April, where there were several proposed changes introduced that would have increased the number of single occupancy restrooms based on lowered building occupancy ratios. However, those proposals were not adopted at the hearings, and no changes to the IBC are now anticipated for adoption and use in the next version of IBC (the 2018 version).

It should be noted that, regardless of changes made to the IBC, any city or jurisdiction may choose to forgo sections of this model code and adopt its

own code changes to advance changes desired by the community at large. APPA member institutions may wish to carefully anticipate possible code changes to fixture counts, as well as changes to overall restroom design and possible retrofitting over time, as they plan for future construction and renovation projects. ⑤

John Bernhards is APPA's associate vice president and the liaison to the APPA Standards and Codes Council. He can be reached at john@appa.org.



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The Jewel in APPA's Crown

By Jack Hug, APPA Fellow

A story is told about Abbott Lawrence Lowell, president of Harvard University from 1909 to 1933. One day a visitor asked him, "How is it, Mr. Lowell, that so much knowledge is concentrated here on the banks of the Charles River?" Lowell purportedly replied: "It's very simple. Every year, we admit to the college the most brilliant young men in America, and when they graduate four years later, they are entirely ignorant. So they must have left their knowledge here." That, in caricature, is the challenge facing managers: How do we turn the candlepower of our people into the wattage of the organization, rather into something that goes out at 5 p.m.?¹

Many reading this article will recall the earliest versions of the APPA Body of Knowledge (BOK): *Facilities Management: A Manual for Plant Administration*, first edition (1984), second edition (1989), and third edition (1997). Many of you have contributed to and benefited from these early efforts.

The insightful thinking of the APPA Knowledge Management publication team and their creative use of digital technology have brought us a body of knowledge that is a truly useful management tool. The APPA BOK is not simply the first electronic body of knowledge for our profession, but also the envy of

other professional associations. The development of the BOK was a lot harder than it looks. The leadership of Steve Glazner, Anita Dosik, Maggie Kinnaman, the collaboration of the content coordinators, and especially the hard work of the chapter authors, have helped sustain the BOK's quality over time.

A TOOL TO ENGAGE AND MOTIVATE

The APPA BOK content will assist you in your search for professional guidance, best practices, and support for your

a look at the BOK. And remember also that the authors are valuable resources themselves, so don't hesitate to consult them directly or to use the important references offered in each chapter to gain additional understanding of the subject.

Furthermore, putting the BOK to work in our facilities organization gives us a performance advantage by helping us better understand, evaluate, and compare the realities of our particular campus situation, individual capabilities, and organizational capacity.

BOK

Body of Knowledge

A POWERFUL COMBINATION

The BOK is grounded in practice, meaning that hundreds of FM professionals have had input into the content development, largely based on real-life experiences and practices. A powerful catalyst for learning occurs when this content expertise is coupled to action and knowledge, yielding opportunities for self-improvement, team development, and positive organizational performance. BOK's benefit to facilities organizations is multiplied with the explicitly announced goal of having every person in the organization lay their hands on the collected know-how, experience, and wisdom of so many of their colleagues.

Organizations function at their best when knowledge is created and when people grow. Success is often tied to a greater

organizations developmental requirements. It is valuable intellectual capital for our profession and a proven, trustworthy, forward-thinking resource for a profession focused on serving education.

The BOK is a tool that can motivate and engage the facility management (FM) workforce. One of the best practices for use of the BOK is to recognize the ease of quick access to content in each chapter. Whenever you need a quick refresher, an introduction to a new or unfamiliar topic, or an in-depth study, take

understanding of important foundational knowledge—to knowing the basics and to understanding the profession's core competencies. The BOK is a comprehensive framework, assembling valuable insights for understanding why facility management professionals work together and how they can work together to achieve a distinct group purpose—things that none of us could possibly accomplish alone. Capturing these insights within a coherent system—a working whole—is what a good body of knowledge does.

MULTIFACETED USES

Additionally, the BOK is used at the APPA Institute for Facilities Management, where attendees not only benefit from the written BOK but also from knowledgeable faculty leading lively group discussions and practicums—shared work experiences generated by use of the BOK content. As stated on APPA's website, individuals completing the Institute training are well prepared to take the Educational Facilities Professional exam (EFP) and successfully earn their EFP designation. After graduating from the Institute, the attainment of the EFP designation is seen as the next logical progression on the APPA educational continuum path.

To succeed in an ever-changing education facility management marketplace—one that values expertise, know-how, and facility management professionalism—we must continue to have members committed to furthering organizational knowledge, skills, and abilities, technical knowledge, and human insight. The core of ideas contained in the BOK will endure because they represent our fundamental realities and responsibilities.

A TEAM OF CONTRIBUTORS

We owe our thanks to the BOK contributors and their unwavering dedication to expand and sustain the BOK content, and also to those APPA members who


have more to contribute as our profession's knowledge continues to grow and expand. I encourage others to join in this effort. As you grow your own talent and deepen your organizational expertise, consider adding your insights—your candlepower—into the wattage our profession needs.

COMING ATTRACTIONS

This year's new authors contributing chapters to Part 1, General Administration and Management, include:

- *Human Resource Management*—Jenna Elmer, University of Arizona, has written a new chapter with a totally new approach to building an effective workforce.
- *Leadership and Administration*—Ana Thiemer, University of Texas Austin, has expanded the Ethics chapter by authoring Part II on this important

leadership topic.

- Also for *Leadership and Administration*—Polly Pinney, Arizona State University, is writing a much needed chapter on customer service.
- *Business and Financial Management*—Beth Clark, Penn State University, will write a new chapter on budgeting issues. 

ENDNOTES:

- 1 *Intellectual Capital: The New Wealth of Organizations*. Thomas A. Stewart, Doubleday, New York, 1997.

Jack Hug is an APPA Fellow and Past APPA President. He is president of Hug Consulting and Management Services, Colorado Springs, CO. He serves as the content coordinator for the General Administration and Management section of APPA's BOK and can be reached at jackhug1@comcast.net.



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Book Review Editor: Theodore J. Weidner, Ph.D., P.E., CEFP, AIA

Many references for facility managers are expensive, and

with the constant trimming of budgets occurring today, recommending an essential reference when there's no money obviously isn't helpful. This edition contains two references available at no cost via download from their respective sites. Both look in the code and standards realm, an area of significant interest.

NATIONAL COST-EFFECTIVENESS OF ANSI/ASHRAE/IES STANDARD 90.1-2013

Pacific Northwest National Laboratory, Richland, WA, 2015, 123 pp., download, \$0.

Whenever a code or standard is updated, the first thing large facility owners need to do is figure out how the changes affect the cost of ownership. The typical result is that the cost will go up. That has been a relatively consistent result over the 30-plus years of my career, as code has continued to address the increasing sophistication of facilities and the attempt to eliminate various risks.

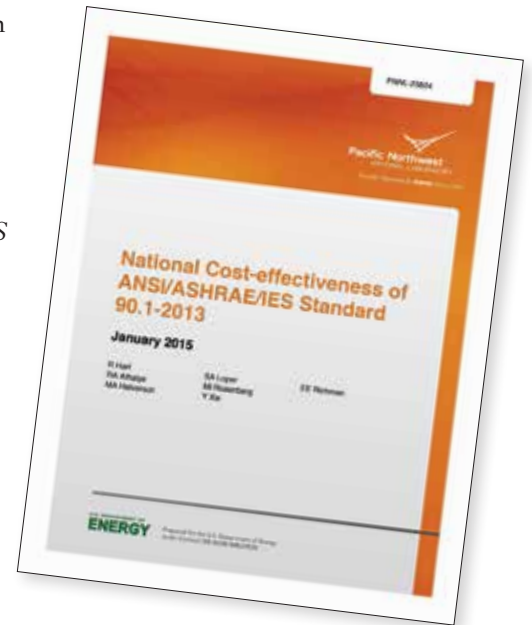
The adoption of international codes, as reflected in the International Code Council (ICC) family of documents, has made things simultaneously easier and more difficult. About ten years ago the many building codes used across the country were generally reduced to the ICC documents, so those of us moving from one region to another didn't have to learn a new set of codes. But keeping up with changes in codes and standards has remained difficult, which is why APPA created the APPA Standards and Codes Council (ASCC). The regular calendar of changes rotating through the ICC family follows a three-year revision cycle, and vigilance and expertise rotate with each cycle.

Fortunately for everyone, the Pacific Northwest National Laboratory (PNNL), via a contract from the U.S. Department of Energy, undertook an

analysis of the changes in ASHRAE Standard 90.1, titled *National Cost-Effectiveness of the ANSI/ASHRAE/IES Standard 90.1-2013*. Both the Illuminating Engineering Society (IES) and ASHRAE are standards development organizations recognized by ANSI, the American National Standards Institute, which is the American link to the International Code Council, the unified source of building codes in the United States. Energy efficiency of heating, ventilating, and air conditioning (HVAC) systems in buildings has been an area of attention for ASHRAE for years.

Although there are many more buildings and climate types affected by the 90.1 changes, PNNL selected six building types and five climate locations. The sample represents nearly 75 percent of new construction by floor area, a reasonable sample size. The building types are a good representation of higher education space types, but the analysis is not perfect, because, for example, athletic facilities are not analyzed specifically. As in any good study, however, the analysis methods are clear, the results are easily understood, and the assumptions are well documented, so that the remaining building types and climate locations can be analyzed by owners as needed, without significant deviations in methodology.

While not the focus of this review, the study results are favorable and demonstrate that the added cost in facilities



generates immediate and reasonable payback in most cases.

The analysis looks at 33 of the 110 changes to ASHRAE 90.1 from the code's 2010 version, providing a brief description of each. To examine the other 77 changes, one must use the references provided. Each of the models analyzed are described in detail in the appendix, including references for each assumption such as design dimensions and costs. There's enough information so a competent person can perform a parallel analysis for other elements not included.

Although the new standards are not without cost, the analysis of cost benefits is. This detailed reference is not for everyone, but a staff engineer or sustainability officer will want to look at PNNL's analysis to address questions about changes to ASHRAE 90.1 and develop additional ways to save energy and costs.

STANDARDIZATION ROADMAP: ENERGY EFFICIENCY IN THE BUILDING ENVIRONMENT

Energy Efficiency Standardization Coordination Collaborative of the American National Standards Institute, 2014, ANSI, 226 pp., download, \$0.

One of the many challenges facing facility managers is the changing landscape of external issues affecting facilities. The Montreal Protocols of 1987 compelled changes to the use of refrigerants, and in 1990 APPA created a way for facility officers to make intelligent and economical decisions in response. Other changes in standards, codes, laws, or best practices have resulted in additional efforts to assist facility managers.

Energy efficiency presents several challenges for everyone, not just facility managers. As I often say, this is a sweet spot for facility managers, because the CFO will cut a lot of other costs in order to pay the utility bill. So if a facility manager makes a clear link between physical projects and utility savings, additional funding may result.

Due to the size and complexity of the issue, the American National Standards Institute initiated discussions among 168 experts from over 60 organizations, corporations, and institutions. The discussions focused on five major areas of energy efficiency looking at standards, system integration, ratings systems, measurement and verification, and credentials. The result is *Standardization Roadmap: Energy Efficiency in the Built Environment*, a report that outlines 125 specific areas requiring development of standards and common terminology and proposes three different time frames to address these areas—within two years, within five years, and beyond five years. To keep the report a manageable size and within the realm of facility officers' interest and control, individual product standards, generation, and distribution were not included.

There are a number of issues identified in this document of interest to education facility officers. Because APPA is attempting to take a leadership role in this area, this is an excellent and timely document to obtain.

Of first importance are the overall codes and standards development issues. The document assigns most of the energy assessment and performance standards duties to



ASHRAE. Most of these codes and standards address what could be called the “last mile” of energy efficiency—energy efficiency behind the meter. Many institutions have developed tools and techniques to address these issues, but many others have not. Likewise, institutions have focused on certified in-house expertise via hiring or education, but certificates have varying levels of education and rigor, so there are concerns for consistency and focused improvements.

The gaps identified in the document mean that an organized approach to energy efficiency will progress slowly. While a slow approach may be satisfactory in many other areas, the financial benefits available—when there are so many other financial pressures on education institutions—suggest we need to speed up the process. Slow progress

wastes money. There is clear evidence for this in the wide range of energy consumption outcomes in education institutions: Some institutions continue to consume a lot of energy, while others are much more energy efficient, and thus economical.

One result not addressed in the document, is a way that will allow CFOs to link operating to capital expenditures. This TCO (total cost of ownership) approach can increase the speed at which improvements are made and energy saved. Unfortunately, the only recognized tool available now is an energy service company (ESCO), which carries some baggage for institutions concerned with outsourcing, trust, and debt burden, to name a few.

Overall, the *Roadmap* is good and looks at many of the right things. The conclusions about current technology and gaps may be food for thought for some and obvious to others. The clear message I get from *Roadmap* is that APPA and its members need to embrace the commitment to cost savings available from efficiency improvements.

There are many wise and influential members who can assist with the items identified in this report. Many of these items dovetail with existing efforts of the ASCC and the facilities performance indicators. If you haven't previously joined in APPA's efforts to address energy, sustainability, and cost issues, now is the time. Get this free document and step up your game. 💡

Ted Weidner is an associate professor at Purdue University and consults on facilities management issues primarily for educational organizations. He can be reached at tjweidne@purdue.edu. If you would like to write a book review, please contact Ted directly.

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