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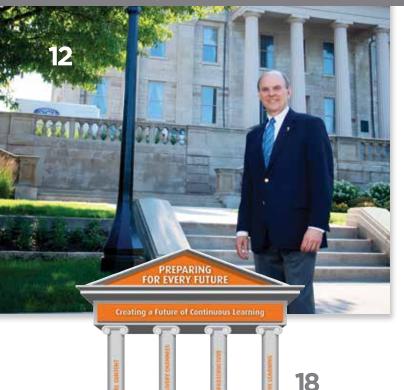


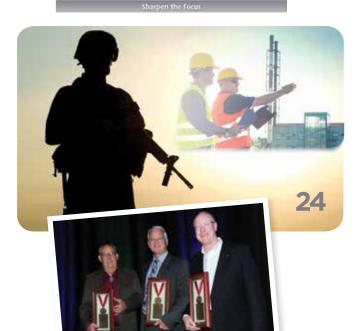






features





EMBRACING CHANGE

Building APPA's Future: A Profile of President Don Guckert

By Ruth E. Thaler-Carter

APPA's new president, Donald J. Guckert, is a living embodiment of the theme for his APPA presidency, "Embracing Change." Guckert is leading APPA and its membership through a major self-assessment and realignment that will define more clearly who we are as an association, and how APPA can best serve its members and the educational facilities profession.

🔿 APPA's Strategic Plan: Preparing for Every Future

By Donald J. Guckert, Jeri Ripley King, and E. Lander Medlin While changes in educational facilities management make it difficult to predict a sustained future state, futurists believe that the key to succeeding in an ever-changing world is to never stop learning. This makes it is evident that educational facilities managers will need to be able to adapt and develop as their futures rapidly unfold.

Military Transition to Educational Facilities

By Major Steven D. Gasser, CD, CEFP, P.Eng., CA Army (Retired) APPA's Professional Affairs Committee recently formed a new subcommittee with the purpose of aiding military personnel in the transition to civilian facilities management roles in educational facilities.

2018 Conference Highlights: Washington, D.C.

Photos by Rhonda Hole

Cover photo of Don Guckert by Justin Torner/University of Iowa Office of Strategic Communication

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Enterprise

APPA's Recent Resources

If you're not aware already,

we wanted to bring to your attention three recent publications from the APPA Bookstore that will be valuable additions to your facilities resource library. These and many more resources are available at www.appa.org/bookstore.

Building Total Enterprise Asset Management Solutions: A Guide to Capital Needs Analysis

By Douglas K. Christensen & Cameron R. Christensen; foreword by E. Lander Medlin



At a time when longrange planning was in its infancy, Past APPA President and APPA Fellow Doug Christensen wrote about the need to be more forward thinking and strategic in the administration of physical facilities. From

his first asset analysis in 1972 to his death in 2016, Doug devoted his life's work to the study of facilities planning.

This book is a compilation of the collaboration, research findings, and best practices that Doug Christensen employed in his work. It delves into the strategic foundation of long-range facilities planning, outlines methods for organizing the effort, and touches upon the role of life-cycle planning in the overall total cost of ownership model. The goal of this book is to share these findings and to help the next generation of facilities professionals benefit from his life's work. Co-written and completed by Doug's son Cameron, who himself is making a career within educational facilities.

APPA's 2012-2017 Effective and Innovative Practices Award Winning Entries: With Updates

A compilation of all of the winners of APPA's annual Effective and Innovative Practices Award from 2012 to 2017. Includes updates and the future outlook for the practices wherever possible, as we

know that the continuing story of these best practices is of great interest and importance. Educational institutions can undergo technological, budgetary, and procedural changes, and



learning how the program or process had changed over time is of great significance. An institution may have dealt with modifications, improvements, or issues since the inception, and we sought to know it all — the good, the great, the bad, and the ugly.

[This book is available only as an ebook in PDF format]

Sustainability Case Studies: Best Practices in Campus Life

This collection of short case studies highlights a range of best practices—both innovative and practical—in place

right now that enhance environmental stewardship, improve cost and energy efficiencies, and provide for greater collaborations among students, faculty, and staffs at our educational



institutions. This book includes 123 total best practices from 92 separate colleges, universities, and schools, representing only a small number of the exciting and practical advancements taking place in campus sustainability and environmental stewardship.

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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 20,000 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.





industry news & events

Facilities Manager Becomes a Digital-Only Publication in 2019

Starting with the January/February 2019 issue of *Facilities Manager*, the magazine will transition to a totally digital format, available to all APPA members in both a digital flip file format and PDF files of each article. In so doing, APPA will embrace a digital format that will allow the magazine to reach more readers; engage in a more environmentally responsible approach to information sharing; and support its strategic vision of faster access to information and a responsible financial stewardship of the association.



Become an APPA Officer: Nominations for 2019 Are Now Open

APPA's strong and steady volunteer leadership is one of the core forces making it the association of choice for educational facilities professionals. Consider becoming a candidate for an elected APPA office. Elected officers gain valuable leadership skills and a chance to develop professionally in many meaningful ways, and being an officer provides a major opportunity to give back to the entire profession. Serving as an APPA elected official does require a personal commitment of time and energy. However, past elected officers will tell you that the personal rewards and professional benefits outweigh the costs of engagement and time commitments. There are five elected officer leadership positions, only one of which will be on the 2019 ballot:

· President-Elect

Consider nominating yourself—or others—for the position that best matches your passion and areas of expertise. Learn more at *https://www.appa.org/board/board.cfm*. All applications and nominations for APPA office are due no later than **December 10, 2018**.

Advertise Your Position Openings in Job Express

If you are looking for a highly qualified pool of candidates for a facilities management opening, Job Express can help you. Your ad will be posted online where it can be seen by thousands of facilities professionals who access APPA's website.

The Job Express audience consists of professional facilities managers in top executive-level positions, individuals who are retiring from the military with extensive facilities and engineering experience, graduates of APPA's Institute for Facilities Management, and members who have earned the Certified Educational Facilities Professional (CEFP) credential.

Job Express gives you market exposure through its online postings. All ads appear in one format for one low cost and are hosted online for eight weeks! Add email and website links so applicants can reach you at the click of a button. To find out more, go to http://www.appa.org/jobexpress.

2019 Award Nominations Applications Due November 30, 2018

Nominations and applications are now being taken for APPA's 2019 institutional and individual awards:

- Award for Excellence
- Sustainability Award
- Effective and Innovative Practices Award
- APPA Fellow
- Meritorious Service Award
- Pacesetter Award

Award nominations submitted after November 30, 2018 will be held and considered in the 2020 award cycle. To find out details about each award, visit http://www.appa.org/membershipawards/index.cfm or contact Christina Hills at christina@appa.org.

FPI + KFM Surveys Now Open for 2017-18 Data Input

The 2017-18 cycle of APPA's Facilities Performance **Indicators** (FPI) is underway! Participating in the survey yields potent peer comparison key performance indicators, making the FPI a flexible, sophisticated, and powerful tool for analyzing, planning, reporting, and managing your facilities operation. APPA is the only higher educa-



tion professional organization that provides such a powerful tool to its members. The APPA/NACUBO Key Facilities Metrics (KFM) survey is also open for data collection on a handful of consumption metrics.

Although the deadline isn't until **December 17** for both surveys, the earlier you start, the more time you'll have to give your operations the critical analysis that the surveys foster, and realize the benefits of the results they generate. Visit www.appa. org/research/fpi and www.appa.org/research/nacubo.cfm for more information and to register to complete the surveys.



APPA 2018 Conference Photos Available Online

You can access and download electronic images of the Washington annual conference from our Shutterfly photo album at https://appa2018washingtondc.shutterfly.com/. You can also purchase prints and have them shipped to you.

CALENDAR OF EVENTS

APPA Events

Oct 14-20, 2018

APPA's Supervisor's Toolkit

Cleveland, OH

Oct 15-18, 2018

APPA's Supervisor's Toolkit

Richmond, VA

Oct 29-Nov 1, 2018

APPA/ACUHO-I Housing **Facilities Conference**

Pittsburgh, PA

Nov 5-9, 2018

APPA's Supervisor's Toolkit

Lexington, KY

Regional Events

Sep 24-26, 2018

RMA 2018 Conference

Aurora, CO

Sep 29-Oct 2, 2018

CAPPA 2018 Conference

Spearfish, SD

Sep 29-Oct 3, 2018

PCAPPA 2018 Conference

Spokane, WA

Sep 30-Oct 3, 2018

ERAPPA 2018 Conference

Manchester, NH

Oct 6-9, 2018

SRAPPA 2018 Conference

Greenville, SC

Oct 13-17, 2018

MAPPA 2018 Conference

Cleveland, OH

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



APPA 2019 ANNUAL CONFERENCE & EXPOSITION

Denver, Colorado • July 15-17, 2019

Mark your calendar to attend next year's meeting and exposition. You won't want to miss this exciting gathering of fellow facilities professionals and exceptional speakers!

Results from the 2018 Membership Survey

By E. Lander Medlin

irst and foremost, many thanks to those members who found time to respond to APPA's membership survey this past May. Your feedback was immensely valuable and has served as the cornerstone for APPA's new Strategic Plan, Preparing for Every Future, focused on the aligning vision of continuous learning and is further reinforcing our brand strengths of professional development and community. (For more information, please read President Don Guckert's profile and the detailed Strategic Plan in this issue and on the APPA website.)

The membership research study/survey was conducted by Stratton Media Strategies LLC, electronically by email invitation and password protected link to the survey site. The email invitation was

sent to all primary institutional representatives and a random sample of secondary contacts at member institutions. We were pleased to receive a 9% rate of response from a random APPA member institution population pool totaling 9,894. Responses were calculated at the 95% confidence level with a margin of error of +/- 3.2% (well within the acceptable range of 95% +/- 5%).

THE HALLMARKS OF APPA'S BRAND

"The one thing" members collectively said they value most or that APPA could do/provide was, first, professional development in all its forms (educational training, information and best practices, webinars, peer-to-peer learning); and second, professional networking and relationships. These two

areas – enhancing professional development opportunities and cultivating community – represent the hallmarks of APPA's brand.

Correspondingly, we were extremely pleased that 94% of members across all job roles say the value they receive from APPA in terms of services/ benefits versus the cost of dues meets or exceeds their expectations. In addition, 91% of our Primary Representatives would likely recommend APPA to a colleague or a friend. Finally, the value of APPA membership and engagement leads that of all other associations two to one (2:1).



PARSING THE RESPONSES

+ Of the 18 total survey questions, the last eight addressed respondents' demographic profiles, and provided equally rich information on the changing face of our membership base.

+ The first two questions addressed the value of and participation in APPA's programs. Clearly, professional development and relationship-building opportunities across all of APPA, its regions, and chapters were key among respondents. However, information on current industry issues, emerging trends, and current or best practices are the most highly prized. APPA's programs were ranked valuable or extremely valuable (in the high 70th or 80th percentile). The issue for us to explore further and improve upon is that of participation/use.

After dissecting your responses, it is clear that more professional development and leadership training opportunities are needed locally (institutional and chapter deliveries in particular), along with ramping up our focus on delivering more webinars, online books, and associated learning platforms. Hence, more learning at your time and place of choice!

No matter what the job role or function, the top challenges and issues our members face in order of importance or need were:

- · Aging infrastructure
- · Budget issues
- · Recruiting and retaining talent
- Expanding workload and expectations
- Leveraging and adapting new technologies
- Leadership development of staff

And, from your vantage point, the top factors that are shaping the future for our members were:

- Modernization of aging infrastructure (or escalating deferred maintenance)
- Budget issues/pressures
- · Efficient and effective use of space
- · Workforce skills gap and recruitment of talent
- · Keeping up with technology solutions
- · Succession planning and succession management

In addressing the top challenges, issues, and factors shaping the future, we will focus on these topic areas to drive future content development and utilize different delivery systems (e.g., targeted, topical email communiques; enhanced website searchability; online webinars and continuous learning platforms; along with increased local and regional deliveries). Hence, more content at your time and place of choice and

content that is appropriately repurposed and/or formalized in an enhanced content management system for easier retrieval.

+ The demographic profile data was just as compelling. We had a representative distribution by job role and age with GenXers cresting 50% for the first time. What was eye opening was "prior member type" (i.e., before taking a job in educational facilities management), with 47% coming from the private business sector and 16% from college or vocational education schools. Additionally, although "years of experience in the field" was a wide range, it was telling that 18% have only been in the field for 1-5 years. Therefore, those new to the field of educational facilities management will be an important target audience for us to focus information and programming. Responses by institutional type was 76% public and 24% private with institutional Carnegie Classifications noted as 50% Research Universities, 21% Comprehensive/Doctoral, 8% Community Colleges, and 13% small Liberal Arts institutions. This is a fairly standard distribution for past surveys.

PREPARING FOR EVERY FUTURE

As we move forward, a few noteworthy recommendations are:

- Refocus and repurpose content on members' most challenging issues and utilize different delivery systems to meet that need in a timely manner.
- Add greater focus on those less experienced or new to the field of educational facilities management
- Develop a more effective marketing strategy that specifically addresses and/or targets members' needs by role or function.
- Use social media to drive conversations on important topics.
- Update supporting technology infrastructure (e.g., from website and content management system upgrades to online community and enhanced communications tools).

Again, our sincerest thanks for your willingness to provide such important and timely feedback. We are excited about the prospects for the future and the new Strategic Plan's aligning vision of continuous learning. Make APPA your "go to resource" as you prepare for every future. (§)

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

"Say 'Yes'," They Said

By Erin Marsh



hen I first got involved with APPA, I was two years into a transition from the private sector construction industry in California to a position in higher education facilities management with the Design & Construction Department at the University of Iowa. I had heard about APPA from colleagues, but only enough to know that getting involved might be a good way to develop my career. I started looking at the APPA website to find out more about what

APPA does. Acronyms like "FPI," "EFP," and "CEFP" were flying in one ear and out the other, until I saw something about APPA's upcoming Emerging Professionals Summit. This was something I could connect with. The Emerging Professionals group, now called APPA Young Professionals (AYP), was established to bridge the unprecedented challenges and uncertainties of today, which require us to remain flexible and adapt rapidly. It was intended for those who are fresh out of college and making a career shift, who are not held back by the status quo and not afraid to challenge it by asking "what if...?" This sounded like me. After sitting through the summit, I asked some of the more experienced APPA members how I could get involved. "Say 'yes," they said. Before the end of the APPA Annual Conference, the sitting MAPPA membership chair asked if I wanted to join the committee. I said "yes" and left the conference as the Iowa representative for the MAPPA membership committee.

A BROAD SPECTRUM OF RESOURCES

I started my career in California working for general contractors. My experience was in the built environment for the private sector. I worked on a variety of projects, including K-12 schools, community centers, a museum, hospitals, universities, and laboratories. I was very comfortable being in the role of the builder and in managing the subcontractors. When I moved to Iowa, I made the jump from private sector to public sector, working as a construction manager for the University of Iowa. My role switched from builder to owner's representative—a completely different mindset.

Becoming actively engaged in APPA was the best tool I could have ever received to help me navigate my new career. Having access to a network of experienced individuals with a wide range of expertise provided me with the resources I needed to tackle the issues I faced. I have been able to pick up the phone or send a quick email to someone at another institution who may have already overcome a par-

ticular challenge I am working through. Whether it is a technical construction question, or one regarding the needs of the departmental clients on a university campus, someone in APPA has experienced it, mastered it, and is willing to share what they have learned. And this is why membership matters: The wider the scope of APPA membership, the more resources are available to all of us.

After serving for a year or so as the Iowa representative for the MAPPA membership committee, I was asked if I was interested in leading the committee. "Say 'yes" rang in my ears—so I did. This role has challenged me to think outside of the box and come up with fresh recruitment and retention strategies and methods. Membership is really all about grabbing someone's attention and making a personal connection. So how do you get through to someone and help them understand the value APPA offers? For me, it's all about the

SAYING "YES" OPENS DOORS

relationships.

By saying "yes" to opportunities that have been offered, I have been able to be engaged and active at both the regional and international level. Being a part of both APPA's Membership Committee and AYP has been a great opportunity for collaboration between the two groups. One of the membership committee's goals is to grow AYP by utilizing technology and social media. Each of us has the opportunity to engage this demographic at our own institutions: Facilities management departments can present their organization at career fairs on their campus, and they can increase their Facebook and Twitter presence. Some institutions have even started making short sound-bite videos highlighting the amazing work and special projects their facilities management departments are doing. The way we push membership is always evolving.

Five years later, I'm coming to the end of my term as the MAPPA membership committee chair and am looking for someone to say "yes" to

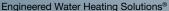
the opportunity to lead the committee in continuing the growth of APPA and the great knowledge and resources it provides to its members. (\$\\exists\$)

Erin Marsh is construction manager at the University of Iowa, in Iowa City, IA, and MAPPA's membership committee chair. She can be reached at erin-marsh@ uiowa.edu. This is her first article for Facilities Manager.

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Building APPA's Etature

A Profile of President Don Guckert

By Ruth E. Thaler-Carter

PPA's new president, Don Guckert, is a longtime APPA member who brings a combination of corporate and higher education experience to his new role in APPA. He is also a living embodiment of the theme for his APPA presidency, "Embracing Change," as a leader on the faculty and as dean of Planning, Design & Construction for the Institute for Facilities Management, as a contributing writer and editor to several APPA publications, and as a holder of the APPA Fellow distinction.

As associate vice president for facilities management at the University of Iowa (UI) in Iowa City, Guckert is leading APPA and its membership through a major self-assessment and realignment that will define more clearly who we are as an association and how APPA can best serve its members and the educational facilities profession.

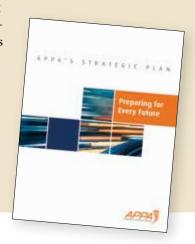
THINKING AHEAD

For Guckert, dealing with the challenges facing higher education facilities management is central to his role in being APPA's president and updating its strategic plan. He appreciates the support and encouragement of the APPA Board of Directors and valued colleagues in developing and messaging his presidential theme of "Embracing Change." He came to this theme by recognizing the

rapid shifts that are impacting the facilities profession—shifts related to finances, technology, demographics, and communication. "With so many changes dramatically transforming our profession, the future is coming at us fast," says Guckert. "This shortens our planning horizons. Predicting the future has become increasingly challenging in this age of accelerating change. To embrace change is to seek new knowledge and gain the skill sets necessary to adapt to change."

The APPA Board is positioning the association to meet the needs of an uncertain future and thus prepare members for "every future," a focus that Guckert passionately supports. Although futurists may hold differing visions of the future, there is general consensus that in a knowl-

edge economy, being a lifelong learner will be critically important to professional success. As such, continuous learning has become the aligning vision for the development of APPA's new strategic plan. The plan centers around "providing our trademark training and professional development at an elevated scale, in a greater



Except where noted, all photos are by Justin Torner/University of Iowa Office of Strategic Communications



Above: The earliest buildings on the University of Iowa campus, including the Old Capitol as its centerpiece. Right: Guckert confers with Joel Smith, groundskeeper II.

variety of delivery channels, through a more robust organizational infrastructure; and on using the APPA community to enhance peer-to-peer collaborative learning."

"APPA's strategic vision is to be able to respond to the increasing demand for collaborative learning and offer a wider variety of options. We will respond to ongoing needs that are evolving faster and faster." That vision is driven by the membership's desire to know more and do better, says Guckert.

GETTING STARTED

Guckert worked in the corporate sector for several years while it was going through a "couple of economic cycles" that made him decide to find a more stable professional environment. "During the economic downturn in the early 1980s, I left U.S. Steel to go back to school for my graduate degree," he recalls. After graduating, he went to back to work at U.S. Steel and was laid off a year later due to a plant closing. His next job with an engineering construction firm ended in a similar experience. After being laid off twice, it was time for a change: "I did an assessment of my career and realized that not only was I working in vulnerable industries, I was doing work that was not fulfilling."

When Guckert was an engineering student at Penn State, he—like most APPA members—never thought about facilities management as a possible career. But he eventually decided that the higher education sector offered the kind of environment he



thought would let him flourish, and entered the profession that would ignite his passion. He and his wife Silvia had met and married in a college town and decided they wanted to live and work in that kind of environment.

Guckert applied for several positions in higher education across the U.S. and landed a job as a construction engineer in Columbia, Missouri, with the University of Missouri System office. Their dream of living in a college-centric town came true, and the Guckerts prepared for a new life in a new town with their two infant daughters, Kristi and Katie. Guckert headed to Columbia as the family stayed behind in Pennsylvania until the

closing on the house they just bought. Everything looked good—until fate presented a major challenge.

"On the first day of work in September of '86, I was shown the coffee pot and introduced to the director of planning who had just announced he was leaving for another job—and I would soon learn why," Guckert remembers. "I was then invited along with the rest of the planning, design, and construction staff into a 9 a.m. meeting with the vice president for an important announcement. Barely an hour into my new career in higher education, he was informing the entire staff that the department was being dissolved, and that planning, design, and construction efforts would, in the future, be decentralized and managed by each campus. We were told we all would still have jobs, but they didn't know at which of the four university system campuses. As a person with all of one hour of experience in higher education, I wondered whether I would be placed anywhere. Imagine Silvia's reaction when she called me that evening to ask me how my first day went."

With their planned move and life transition suddenly up in the air, the Guckerts decided to "roll with it" and see how it would shake out. There's nothing like the unexpected to prepare someone to embrace and adapt to change!

ENTERING EDUCATIONAL FACILITIES

As the months unfolded, Guckert had the good fortune to be placed at the University of Missouri's flagship "Mizzou" campus in Columbia. While that meant he and his family did not have to sell the house they had just bought and move, he did have one more change to make—he was asked to shed his construction engineer role and become a director. That experience ties into

his notion of change: "With change comes opportunities that can lead you to good things, growth, and success."

Guckert's first major hurdle was to lead the rest of the staff assigned to the Columbia campus through a challenging transition. "I was a very young director, working in a profession that was new to me, and leading a team of individuals to become part of a comprehensive facilities organization," he says. A driving force behind the decentralization of the management of capital projects was that it would result in better synergy with the facilities operational side of the house. Realizing he needed

Top: Past President Chris Kopach hands over the presidential gavel to Guckert at the Washington annual conference. Right: Guckert and Katie Rossmann, manager of data analytics & commissioning, in UI's Energy Control Center. to learn as much as he could about all of facilities management, Guckert took particular notice when a brochure was passed to him about APPA's Institute for Facilities Management.

Guckert's career reflects his commitment to embracing change and has resulted in building organizations at two American Association of Universities (AAU) institutions. He has been at UI since 2003, responsible for the facilities management organization and its four major departments: Planning, Design & Construction, Building & Landscape Services, Utilities & Energy Manage-









Guckert, right, with construction project team members (from left) Ul's Dan Cassidy and Kirsta Scranton, and Travis Scott of Miron Construction.

ment, and Business & Financial Services. Guckert was at Mizzou from 1986-2003, where he enjoyed a progressive career leading the department of Planning, Design & Construction and overseeing campus planning, project planning and management, construction management, and in-house design and construction services.

Guckert is proud to have served a long tenure at his two institutions, and to be supported and enabled by the strong organizational leaders and talented individuals within his organization. He has treasured his role in positioning facilities management as a valued institutional partner, and takes personal pride in the noble missions that higher educational institutions serve.

THE FLOOD OF 2008

In a career full of memorable people, events, and accomplishments, one stands out above all for Guckert. In June 2008, he found himself leading a response effort to protect the Iowa campus from the threat of a record flood. Despite 10 days of heroic efforts by his team, construction contractors, suppliers, and community volunteers, the Iowa campus fell victim to a 500-year flood when a 5-ft. wall of water overflowed the upstream U.S. Army Corps of Engineers dam. More than 20 university buildings were damaged, including 25 percent of the

central classrooms, 20 percent of the residence hall beds, and the central steam and power plant; and four major buildings were a total loss. At a price tag of more than \$700 million to respond, recover, and rebuild from the flood, it remains the most costly natural disaster to impact a higher educational institution in U.S. history. Despite the harrowing nature of that epic event, Guckert will always treasure what he learned from it: "It demonstrated in dramatic ways the dedication of our facilities management team and the love and appreciation our faculty, staff, students, and community have for the campus physical environment."

BELONGING TO APPA

For Guckert, one of the best and most-lasting aspects of his time at Mizzou was his introduction to APPA, which led to a lifetime of professional involvement and to his new role as President. "I enjoyed attending the APPA Institute for Facilities Management so much that I've been with the Institute ever since," he says. "It was my gateway into the association and the profession. I realized quickly that, unlike the corporate world, higher education facilities management was a very open profession—open to sharing new ideas, best practices, innovation, and education. It was the APPA community and the opportunity it provided to build professional networks and relationships that I

found so valuable to my career, and to my personal life because of the lifelong friendships I've made."

As Guckert wrote in his election platform statement, "My career-long engagement with APPA has contributed much to my success and, in turn, provided me opportunities to serve, stretch, and give back to our profession." He sees his experience as an Institute dean and faculty member as placing him "at the center of the evolving needs, content, and delivery of professional development for our members."

His wide-ranging APPA involvement and experience testifies to Guckert's passion for learning, service to his profession and colleagues, and ability to adapt to change. Upon graduating from the APPA Institute, he volunteered to serve as a faculty member and in 1998 was invited to serve as dean of the Institute's Planning, Design & Construction track. With Jeri King, he has coauthored articles for *Facilities Manager* (APPA), *Business Officer* (NACUBO), *Planning for Higher Education* (SCUP), and *Construction Specifier* (CSI), and served as the editor of two APPA monographs. He has presented at meetings and conferences of several professional organizations and served on a dozen peer reviews, including several through APPA's Facilities Management Evaluation Program (FMEP).

In addition to all the knowledge and advice he has gained from APPA, Guckert has received several awards and recognitions for his contributions to the association: the APPA Fellow distinction, APPA's and CAPPA's (Central Region of APPA) Meritorious Service Award, two APPA President's Awards, APPA's CFaR Research Award, and two Rex Dillow Awards for Outstanding Article in *Facilities Manager*. His organizations have received six APPA Effective and Innovative Practices Awards as well as APPA's Sustainability Award.

Guckert credits his APPA involvement with helping him gain confidence, strength, and skills; learn more about his profession; stay up-to-date; and advance in his career. "We are a close community in APPA," he says. "It's where we make friends and connections and help each other grow professionally." APPA members also help each other understand how things work on other campuses, which is key to improving one's own campus, says Guckert.

Guckert sees value in APPA membership not only at the individual level, but also the institutional level. "The University of Iowa is very engaged with APPA. We send a lot of our staff to the Institute, MAPPA [Midwest Region of APPA], and Big Ten and Friends conferences so they can have a similar experience to what I had and bring new ideas and solutions to our campus. Most recently, we hosted two Level I sessions of the Academy on Campus for 70 of our organizational leaders, and we are scheduled for Level II. We believe in what the association has to offer and we benefit from it."

Guckert is also proud of the active APPA engagement of several of his direct reports. Sadie Greiner, UI's director of design and construction, now teaches the core Institute classes in PD&C



Guckert and APPA President-Elect Ruthann Manlet share a laugh at the recent APPA conference.

that Guckert once taught. Jeri King, UI's assistant director for facilities management and Guckert's long-term strategic planning partner, served as APPA's Vice President for Information and Research and in 2017 was named an APPA Fellow. Lynne Finn, assistant vice president for UI facilities management, is a faculty member teaching in three of the Institute tracks, serves as dean of the Energy & Utilities track, is the current Institute representative on APPA's Professional Development Committee, and is cochair for the revision of the Custodial book in the Operational Guidelines Trilogy. Others in his organization are actively involved in a variety of service efforts. Erin Marsh is MAPPA's representative on APPA's Membership Committee, and Lou Galante led efforts this past year to establish a state APPA chapter for Iowa (IAAPPA) and serves as its current president.

EMBRACING THE LEADERSHIP ROLE

As Guckert steps up to take APPA's presidential reins, he considers it "humbling and an honor to be trusted to lead an association that serves its members in such an effective and meaningful way."

For Guckert, at the core of any success are a broader understanding of the industry, networking with colleagues, lifelong learning, and anticipating change. "We all have similar challenges, yet are dissimilar in our experiences," he says of APPA members and colleagues in general. "We learn in real time and from each other." He sees APPA as playing a vital role in that learning process, a role that will only increase in value and strength as Guckert leads the organization in "Embracing Change."

Freelance writer/editor Ruth Thaler-Carter (www.writerruth.com) is based in Rochester, NY and is a long-time contributor to APPA publications.



APPA's Strategic Plan

By Donald J. Guckert, Jeri Ripley King, and E. Lander Medlin

hanges in educational facilities management are happening simultaneously, exponentially, and interdependently at the same time that higher ducation is at a critical juncture. The many forces of change within and around the institution and the facilities profession are being shaped and defined at an increasingly accelerated pace. While this makes it difficult to predict a sustained future state, it is evident that educational facilities managers will need to be able to adapt and develop as their futures rapidly unfold. In addressing this need, no other association or professional organization is better positioned than APPA to leverage and build upon the strength of their brand of education and community in preparing their members for every future.

Futurists are aligned by the belief that the key to succeeding in an everchanging world is to never stop learning. As Stephen M.R. Covey stated in his book The Speed of Trust, "unless you are continually improving your skills, you are quickly becoming irrelevant." More recently, in his book Thank You for Being Late: An Optimist's Guide to Thriving in the Age of Accelerations, Thomas L. Friedman argues "when the pace of change gets this fast, the only way to retain a lifelong working capacity is to engage in lifelong learning." Jeff Selingo, in his recent Atlantic article on the Third Education Revolution, postulates that the educational landscape was dominated by the high school degree for 50 years before yielding to the college degree for the last 50 years. Now, he says, "schools are moving toward a model of continuous, lifelong learning in order to meet the needs of today's economy." This third revolution is one where continuous learning will be the expectation.

With this in mind, APPA leaders realized that the association needs to be ready to meet the demand for continuous learning and skills building that will be core to the success of its members effectively serving the ever-changing needs and demands of their institutions. The spring 2018 APPA Member Survey reinforced the value members place on professional development and training, and identified the critical and evolving issues that continuous learning offerings need to address. The member survey responses, and subsequent analysis by experienced practitioners and current association leaders, recognizes that APPA is well positioned to build on its successful foundation of providing professional development and enabling community. APPA provides the place for members to keep pace with the ever-changing and ever-growing demands of the profession.

STRATEGIC VISION: CREATING A FUTURE OF CONTINUOUS LEARNING

APPA leadership developed a vision that would create a future of continuous learning for its members, and then developed the 2018 Strategic Plan to provide a strategic framework and principles that will provide a bridge from the present to the future.

Address, Adapt, Adopt & Apply: APPA will be increasingly relevant as current members and future generations of facilities managers pursue lifelong learning as a means of addressing the challenges of educational facilities funding, adapting to the evolving workplace and workforce dynamics, adopting new and effective means of communication, and applying technology, analytics, and artificial intelligence in building the smart campuses of tomorrow.

Meeting the Needs of APPA Members: The 2018 Member Survey revealed the challenges of greatest concern to our members: aging infrastructure, workforce skills gaps, succession management, budget challenges, increasing workload demands, and more. In addition, it reinforced the value that our members place on APPA, and identified professional development and community as important strengths upon which to build. The survey responses also informed the strategic planning effort with information about who our members are, including what backgrounds they had before entering our profession, and their years of experience. This highlighted the need to provide developmental leadership and adaptive training across the generations representing our members, and drove our efforts to tailor a plan that meets the needs of an evolving demographic profile.

While many of the issues and concerns identified in the survey are similar to previous surveys, APPA's strategic response to those issues is departing from the strategy of previous years, during which we continued to try to do all things

better. This strategic plan will pivot the association to build on its core strengths in professional development and community to become the premier continuous learning provider for our profession. The continuous learning platform will offer members access to information, learning opportunities, and peer-to-peer learning. Continuous learning activities will respond to the members' needs expressed in the survey by:

- Appealing to the diverse interests across workforce generations
- Preparing transitioning professionals for careers in education facilities management
- Informing members on strategies and practices for addressing the challenges with aging infrastructure
- Preparing the profession to manage budget transparency, promote value-based investments, and address operating and renewal funding challenges
- Enabling members to keep pace with emerging technologies and data analytics
- Mitigating and reversing the widening skills gap by training the workforce of tomorrow
- Equipping leaders with the soft skills increasingly demanded in today's complex work environments.

STRATEGIC FRAMEWORK

In creating a future of continuous learning for APPA members, a number of strategic initiatives will be launched and pursued through a structured strategic framework. The structured strategic framework provides an organizing element around which APPA committees, APPA staff, and association leaders will align and direct their efforts to build the continuous learning infrastructure using four supporting pillars: educational content, educational delivery channels, supporting infrastructure, and collaborative learning. Rather than provide a checklist of actions to be taken, the four pillars of this strategic framework offer broad area of opportunities to engage and harness the energy, creativity, and contributions of volunteer members, APPA staff, supporting business partners, and collaborating professional associations.

Educational Content

Building the continuous learning infrastructure begins with the educational content. At the international level, APPA is ready to develop a wide breadth of educational content and create a "course catalog" of instruction. APPA has demonstrated its success in developing content through the curriculum offered by the Institute for Facilities Management, Leadership Academy, and Supervisor's Toolkit. APPA's content development has been limited more by the methods of delivering this content (for example, through APPA U, annual and regional meetings, etc.) than it has been by the capacity of our members and business partners.

In addition to developing APPA's own content, APPA will also adopt an emerging trend to curate content. This means finding existing content elsewhere that has value to our members and offering those courses through APPA. This could include courses offered by other professional associations (ASHRAE, COAA, SCUP, NACUBO, etc.) and courses developed by our business partners or by our members for APPA and the regional annual meetings. As part of the APPA course catalog, the courses could be selected for delivery at any of the regional meetings, APPA U, local chapters, and even on campus.

Educational Delivery Channels

The second pillar in building the continuous learning infrastructure is to create additional, varied, convenient, and cost-effective education and training delivery channels. The emergence of local APPA chapters and the increasing demand for on-campus training is contributing to effective delivery channels for content that may have previously been earmarked only for international and regional conferences.

As continuous learning becomes more important to APPA members and other practitioners, and more critical to organizational success, the delivery of content will need to be available



locally, in a variety of formats. This learning platform needs to be built to deliver content on and offsite, at conferences, on campus, through webinars, as drive-ins, individually accessed, and through social media. It will encompass training that is formal and informal, credited and uncredited, scheduled and on-demand that span from a couple-of-minutes "how to" videos to week-long immersive training, and range from no-cost to the prevailing cost versions of APPA's premier offerings.

Supporting Infrastructure

The third pillar of the framework for continuous learning is to create the supporting technological and human infrastructure to address the increasing demand, as well as support the variety and range of content and delivery methods.

Building on APPA's new Association Management System by retooling the website is the first critical step in leveraging existing content to support continuous learning. This will enable greater use of APPA's existing collection of content. APPA's most valued assets include the Body of Knowledge, Facilities Manager

COLLABORATIVE LEARNING TEACHES US WHAT NOT TO DO, HOW TO IMPROVE ON WHAT WE DID YESTERDAY, AND WHAT WE SEE COMING TOMORROW.

articles, Center for Facilities Research (CFaR), Effective & Innovative Practices, and Facilities Performance Indicators (FPI). APPA's customized interactive learning platform is another valued and proven asset upon which to build. Other technological systems will need to be developed as content creation, curation, and cataloging steadily grows.

Equally critical is the development of APPA's organizational capacity and staffing to provide the leadership, business, and marketing skills necessary to build a learning-centric association.

Collaborative Learning

The fourth pillar leverages APPA's unique core strength, its network of community, to create peer-to-peer learning. Unlike traditionally developed and delivered content, collaborative learning teaches us what not to do, how to improve on what we did yesterday, and what we see coming tomorrow. In an age of accelerating and transformative change, collaborative learning offers synergistic, real-time, and fresh shelf life peer-to-peer learning. It encourages sharing and learning from those who have failed before and learned through those failures.

Collaborative learning is where APPA's differentiation will flourish because of our existing network of community. This pillar is dependent on the other three pillars of this framework. It takes the development and delivery of traditional content coupled with the physical or virtual community to stimulate the kind of dialogue that brings a collaborative learning experience. It expands beyond "what" we learn into the process of "how" we learn by integrating knowledge with practical experience.

APPA has the opportunity to leverage collaborative learning in a unique way based on the strengths of our brands: education and community.

STRATEGIC PRINCIPLES: SPECIALIZATION AND **DIFFERENTIATION**

What makes APPA the association of choice, according to the 2018 Member Survey, is that it brings members together as a community under the niche focus of managing educational facilities. APPA provides the physical and virtual places for members to share experiences and best practices, and build their skills,

> knowledge, and abilities. The strong peer-to-peer community and tailored educational content is what differentiates APPA from other associations.

Because APPA's value to its members is through its specialization and differentiation, the successful execution of the strategic plan will strengthen APPA's core activities. Geoffrey Moore, in his book *Dealing with Darwin*, refers to differentiation as an organization's core identity and competitive edge.

Core activities are those that must be done to support the "brand." Everything that is not core is considered context. Context activities may be important, but they rely on the strength of the core activities to exist. For example, an accomplished athlete's performance on the playing field is the core activity. The endorsement contracts that the athlete may receive from that notoriety is context. If the core activity weakens, the athlete is likely to lose the income derived from endorsements.

As APPA moves forward on the strategic plan, the general rule will be to focus on strengthening core activities. Most context activities are important, contribute to organizational success and enable further investments in core activities. However, context activities take time, energy, and other resources that may be better spent on advancing new core initiatives and enhancing existing core activities. Every budget dollar or staff hour spent to support context activities is at the expense of advancing APPA's core activities. Financial and human resources must be reallocated in order to successfully advance APPA's Strategic Plan, requiring difficult decisions to be made to reduce or eliminate support of existing context activities.

Additionally, it will require suspending the implementation of new context activities.

The following three principles must guide the efforts of APPA's Board and staff to support the Strategic Plan.

Sharpen the Focus

APPA's primary focus has to be on core activities. In order to free the resources needed to enhance APPA's core, selective divestment and/or restructuring will be made relative to context activities.

Strengthen the Core

Investments must be made in initiatives that align with the strategic vision and strategic framework and build the continuous learning infrastructure by enhancing educational content, increasing educational delivery channels, supporting infrastructure, and improving collaborative learning. By strengthening its core activities, APPA will increase its value, differentiation, and relevancy.

our evolving needs as we navigate our unfolding futures. With continuous learning as our aligning vision, APPA is ready to build on its core strengths, create greater differentiation for the association, enhance its relevancy for its members, and prepare for every future. (§)

APPA President and APPA Fellow Don Guckert is associate vice president for facilities management at the University of Iowa and can be reached at don-guckert@uiowa.edu. APPA Fellow Jeri King is Ul's assistant director for facilities management and can be reached at jeri-king@uiowa.edu. Lander Medlin is APPA's executive vice president and can be reached at lander@appa.org. This new strategic plan was created with the assistance of APPA's Executive Committee, committees, and staff. Download the formal document at www.appa.org/board/documents/final2018appastrategicplanbrochure.pdf.

Build Organizational Capacity

APPA will elevate and enhance its organizational capacity to strengthen its core and effectively pursue the strategic plan. This will include repositioning APPA staff, restructuring APPA's committees, and realigning relationships with APPA's regional and local chapters.

SUMMARY

"It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change."

- Charles Darwin

The educational facilities management profession is experiencing transformational changes from innovations, technological developments, and institutional needs that will continue to occur at an accelerating rate. Facilities managers are recognizing that the key to success in an ever-changing environment requires continuous learning.

APPA has developed this strategic plan framework and principles as an ongoing response to GET THE MOST FROM YOUR RESOURCES



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Transition to Educational Facilities

By Major Steven D. Gasser, CD, CEFP, P.Eng., CA Army (Retired)

ear the end of 2017, the APPA Professional Affairs Committee formed a new subcommittee, the Military Transitions Subcommittee, to focus on military members transitioning to educational facilities. The group is made up of former military personnel from a variety of services in both the United States and Canada currently working in educational facilities.

The purpose of the committee is "to engage in a long-term relationship with military personnel and their respective association(s) in the USA and Canada that aids in their transition to civilian facilities management roles in educational facilities (should they so choose)."

Our goals are to:

- Provide an avenue to educational facilities as a career choice (take away the mystery).
- Promote an awareness of educational facilities as an industry.



Members of the committee, along with Lander Medlin from APPA, met with several key organizations in the Washington, DC area in December 2017 to connect with and learn more about how we (APPA) can support the transition of military personnel to educational facilities. We spent some very valuable time with Michael Miller, director of private and public engagement at the **Transition to Veterans Program Office** of the Office of the Under Secretary of Defense. His presentation focused on:

- Soft skills—what talents do the transitioning military members bring to the workforce and their value proposition?
 Leadership, mission orientation, discipline, teamwork, and strategic vision.
- Connections—what other organizations are involved in supporting transitioning military members? (e.g., https://www.hiringourheroes.org/).
- Skills bridge—overview of the programs in each of the Armed Services that exists to assist members to prepare for civilian vocations.
- Overview of the Transition to Veterans Program.
- Top 20 locations for transitioning military in the next year—where are the recruitment opportunities?

As a result of our meeting with Michael Miller, his colleague Commander Eric Vandiver spoke at the Military Transition to Educational Facilities Workshop on Saturday August 4, during the APPA 2018 Annual Conference and Exhibition, to update us on the aforementioned opportunities. He also talked about a report from the Rand Corporation entitled What Veterans Bring to Civilian Workplaces: A Prototype Toolkit for Helping Veterans Communicate to Private-Sector Employers About the Nontechnical Skills Developed in the Military (https://www.rand.org/pubs/tools/TL160z1-1.html). In this toolkit, Rand describes how 19 general skills important to civilian job success are developed through on-the-job experience and selected formal military education courses for enlisted personnel in the Army and Marine

Corps in selected combat arms occupations.

The APPA subcommittee has also met with the **Naval Facilities Engineering Command** headquarters staff in the Washington Navy Yard, and discovered the opportunities available for personnel serving with the various Seabee battalions on the East and West Coasts. United States Naval Construction Battalions, better known as the "Seabees," form the deployable Naval Construction Force (NCF) of the United States Navy. Their nickname is derived from the initials "C.B.," and stands for "Construction Battalion." These enlisted personnel are highly skilled trades staff that would be welcomed at any of our institutions.

Last but not least, we also met with the **Society of American Military Engineers (SAME)**. SAME leads collaborative efforts to identify and resolve national security infrastructure—related challenges. Founded in 1920, SAME unites public and private sector individuals and organizations from across the architecture, engineering, construction, environmental and facility management, cybersecurity, project planning, contracting and acquisition, and related disciplines in support of national security. Headquartered in Alexandria, Virginia, SAME provides its more than 30,000 members extensive opportunities for training, education, and professional development through a robust offering of conferences, workshops, networking events, and publications.

On January 2, 2018, APPA and SAME launched the Partnership to Expand Training and Work Opportunities for exiting military personnel entering the educational facilities profession. The APPA-SAME alliance will bring support to transitioning military officers and personnel by providing access to professional development opportunities and career credentialing services within the educational facilities profession. Additionally, the alliance will support exiting military personnel in their search for career opportunities at colleges, universities, and K-12 school systems. For example, APPA's Job Express service allows any exiting military personnel to place their resume in the APPA Resume Bank at no charge.

The partnership is an important one for the educational community. Within higher education, professional opportunities in facilities are growing, as large numbers of baby-boomer generation employees are rapidly retiring from the facilities profession. It is projected that boomer retirements will be the leading cause for as much as 70 percent turnover and new vacancies within the profession over the next six to seven years.

The facilities management practices for both college or university campuses and military installations have many similarities. Both operate much like small cities, have a diverse property and building portfolio, and contain facilities with unique operations and construction needs and requirements. For both military and educational facilities professionals, a diverse blend of facilities management skillsets across multiple disciplines is often required. Exiting military facility professionals who join educational facilities' organizations for their second career often remark on the striking similarities between both professions.

Among the projects that APPA and SAME are considering are educational facilities career workshops, which would be held at military installations and in metro areas with a large military presence. APPA and SAME would seek member engagement at APPA state and local chapters and at SAME's local Posts to conduct these events.

Additionally, SAME and APPA seek to offer online training and examination preparatory courses for use in acquiring either the Certified Educational Facilities Professional (CEFP) or the Educational Facilities Professional (EFP) credential. The credentials and associated training systems developed by APPA are used by educational institutions to further develop current employees and to hire qualified facilities management talent.

The Military Transition Subcommittee determined that we could achieve our two goals through outreach to SAME by participating in:

- The SAME annual **Transition Workshop and Job Fair**: February 28-March 1, 2019 in Linthicum, Maryland.
 - o The Transition Workshop and Job Fair connects Architecture/Engineering/Construction (AEC) professionals with SAME Sustaining Member Companies and federal agencies looking for talent to help them pursue their federal programs and projects. Each attending company and agency has a private suite, which allows for small-group gatherings as well as one-on-one discussions. Christina Hills, APPA's director of credentialing and benchmarking, attended the 2018 workshop on APPA's behalf and spent the entire time meeting with potential new facilities employees.
 - O APPA staff have attended this workshop previously, and, in speaking with SAME's staff, have determined that there is the potential to expand APPA's presence there and also engage APPA member institutions. In future workshops, APPA may be able to address attendees on the business of educational facilities, familiarize them with what it is like to work in educational facilities, and inform them of the kinds

of work opportunities we have available in APPA's four core areas, in positions ranging from Senior Facilities Officer to trades jobs. Additionally, APPA and any institutions so willing would be able to secure one-on-one meeting room space where they can personally meet and greet with those interested in careers, and even conduct interviews with potential candidates. It would be worthwhile for any institutions in the Maryland/DC/Pennsylvania area who have positions to fill to attend this event in partnership with APPA.

- SAME/IFMA Facilities Management Workshop: February 6-8, 2019. Held every year in San Antonio, Texas, in partnership with the International Facility Management Association (IFMA), the Facilities Management Workshop combines technical sessions, programs, and events for leaders in the facilities management field, with focuses on energy, asset management, technology, and executive leadership. There is an opportunity for APPA to present sessions, especially on content dealing with utilities, energy, building energy innovation and software, etc., as well as collaborating on programming.
- **Credentialing**: SAME has agreed to advertise APPA's credentials (CEFP or EFP) on their website; and APPA offers anyone who is active or retired military a substantial discount for the credentials (https://credentialing.appa.org/purchaseoptions.cfm). All you need is a ".mil" email.
- Chapter Collaboration: SAME Posts and APPA Chapters
 are encouraged to collaborate and foster relationships and
 mentoring by having joint meetings and hosting education
 sessions for members of both associations. SAME has agreed
 to share information on APPA's Facilities Drive-In Workshops
 with local Posts as potential educational opportunities.
- **Drive-In Workshops**: The Drive-In Workshop is viewed as an excellent way to support the concept of transitioning military (i.e., to think about your long-term career strategy well before your service ends). Rather than staging the drive-in event at a college or university, the subcommittee is considering holding an event at a military installation or SAME Post where the surrounding area has a substantial military personnel presence (San Diego, Norfolk, San Antonio, etc.). This might bring the transition opportunity "closer to home." Ideally, APPA would collaborate with member institutions near these installations, and the facilities officers there could also lend support by allowing their staff to attend. We would consider providing interview rooms for college/university facilities personnel to meet and greet current and exiting military. Anyone in the San Antonio and Fort Worth/Dallas areas who is interested in a partnership for this fall should reach out to one of the Military Transition Subcommittee members.

Our other outreach avenues would be through:

• **APPA's website**: We will be developing a website that is searchable for "prior military service" and has a list of people

who are able and willing to speak to the opportunities in educational facilities, starting with our Military Transition Subcommittee members. If you have not already done so, please update your member profile on your myAPPA page (login at www.appa.org/login.cfm). Edit the "Military Service" field within your profile so we can reach out to you for future assistance.

- **Sponsorship Program**: We are currently developing a sponsorship program similar to programs that military members would be used to while in the service, where a transitioning military member can reach out to an APPA volunteer sponsor and ask for assistance with navigating the complex recruitment system and acronyms of the educational institutions that we work for. We will endeavor to pair individuals from the same military service/branch if so desired and in their region of interest.
- Military Transition Workshop for Careers in Educational **Facilities**: The first such workshop held by APPA took place during the recent Annual Conference and Exhibition in Washington, DC, to connect active duty military with former military officers and enlisted personnel who transitioned into successful careers in educational facilities. Our workshop provided the opportunity to meet senior facilities officers, di-

- rectors, facility managers, and others who shared their career stories, identified opportunities, and answered questions on the many rewarding career paths available to you. Admission was free to active duty military personnel in uniform, and about 25 serving military members attended.
- APPA LinkedIn Group "Military Transition to Educational Facilities": This group is for transitioning military members to connect with former military members who are already pursuing a career in educational facilities in North America. All branches of service in Canada, the United States, and Mexico are included. If you are a retired military member in educational facilities, please join our LinkedIn group and assist transitioning military members with any questions they may have about our profession.

If you are a former military member employed in educational facilities and are interested in volunteering, please reach out and let one of the committee members know. We are looking for one at-large former military member from each APPA Region to participate in our subcommittee.

I would like to thank the following subcommittee members for their work on the Military Transition Subcommittee:

- · Darren Hale, associate director, facilities operations and
 - maintenance, University of Texas Austin, U.S. Navy retired
 - John Michalewicz, senior director of facilities, University of Hartford, U.S. Coast Guard retired
 - Bruce Nevel, associate vice president for facilities development and management, Arizona State University, U.S. Navy retired
 - · Ron Tarbutton, chief facilities officer, Oklahoma State University, former U.S. Air Force
 - Christina Hills, APPA staff liaison

We firmly believe that military service members make great employees and leaders!

Steven Gasser is associate vice president, facilities management, at the University of Calgary, Calgary, Alberta, Canada. He chairs the Military Transitions Subcommittee and can be reached at steven.gasser@ucalgary. ca. This is his first article for Facilities Manager.



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Conference **Highlights**



Don Guckert recognizes Chris Kopach's year as APPA President.



2018-2019 Board of Directors

Outgoing Senior Regional Representatives to the Board



Jodie Sweat - SRAPPA; Tony Ichsan - PCAPPA; Glen Haubold - CAPPA; David Turnquist -RMA; Steve Peary ERAPPA (not present); Greg Adams - MAPPA (not present)

2018 Institutional Awards

Meritorious Service Awards



Glen Haubold (CAPPA) Chuck Scott (MAPPA) Emmet Boyle (RMA)

APPA Staff Award



Anita Dosik, 10 Years

Pacesetter Awards



Jessica Abbott (ERAPPA) Markus Hogue (CAPPA) not present Dave Irvin (SRAPPA) Jason Wang (PCAPPA)

Award for Excellence



Georgia Institute of Technology



Montclair State University



Pima County Community College District



University of Arizona

2018 Effective and Innovative Practices Award



Brown University "Preventive Maintenance Program Journey"



Georgia Institute of Technology "Smart Restroom Technology"



The Ohio State University "Employee Video Archive"



University of Iowa "Fault Detection & Diagnostics Program"

* Santa Clara University "Asbestos Data Management" (not present)

Sustainability Award



Central Michigan University James Madison University Simon Fraser University San Jose State University **University of Calgary**

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2018 Individual Awards

Rex Dillow Award



For the Outstanding Article of 2017-18

"Exploring the Benefits of a Strong Internship Program" November/December 2017 Issue

Presented to

Nancy Hostetler, CEFP, COSM

University of Colorado | Anschutz Medical Campus Josh Logan (not present) University of Colorado | Anschutz Medical Campus

Unsung Hero Award



Cathy Blanchard (SRAPPA) not present Brandon Dugan (MAPPA) Kevin Gallinger (ERAPPA) not present Layna Johnson (RMA) Patty Smith (ERAPPA) Scott Turley (CAPPA)

President's Award



Emmet Boyle



Chuck Scott



Chris Kopach and family



Team Kopach Staff: Kathia Gin, Lin Quin, Kevin Williams, Jenna Elmer, Luis Rocha, Bruce Overland, Mark St. Onge, Tanya Terranova, and Renee Cota

CFaR Research Award



Glen Haubold and David Reynolds (not present) For the successful completion of research project CFaR033-15:

Issues with Recovery and Recharge in Higher Education



Glenda Mayo and Pauline Karanja (not present). For the successful completion of research project CFaR034-16:

Current State of Practice for Condition Assessment Methods and the Facility Condition Index as a Measure



2018 APPA Conference **Highlights**

> 487 Attendees

Countries Represented

262 Institutions represented

162 **Exhibitors**

What Has APPA Done For You Lately?

By Theodore J. Weidner, Ph.D., PE, AIA, CEFP, DBIA

hat has APPA done for you lately? There are a lot of things happening in the foreground that are seen with regularity, this magazine, and some in the background, often unseen unless identified. The challenge with many things that APPA does for its members are either plainly obvious or surprisingly hidden. This bimodal distribution of benefits is somewhat typical of organizations that are highly dependent on volunteers. This column will the focus on the hidden things that have a very big effect on educational facilities and APPA members.

The APPA Standards and Codes Council (ASCC) comprises six volunteers having recently lost one member to retirement; we wish him well. These volunteers, with the help of APPA staff, monitor developments in building codes, watching for items that will affect APPA member institutions. They also support and sometimes participate in the development of new codes or standards. It's important work that can have hidden implications into how a facilities organization plans for new or renovated facilities and responds to daily events.

Several of the ASCC members are members of other organizations that are more heavily involved with Standards Development Organizations (SDO). Standards, which become codes through a formal, legislative adoption process typically performed at the state level, affect all APPA members. Building codes address issues of: fire safety (warning, resistance, and occupant egress), health and safety, and, more recently, energy efficiency. These codes are generally reviewed, revised, and updated on a three-year cycle and due to the number of codes there is something happening every year.

An ASCC member generally chairs a group of volunteers who review changes to building codes such as the International Construction Code (ICC), and related documents that govern how architects and engineers design buildings for our campuses. Most recently, Dana Peterson led a review of proposed changes to the ICC Group A codes, those codes address fire exits, plumbing, and HVAC systems. The proposed code changes ranged from topics that addressed a widespread issue or something an individual felt was important to highlight. Two items proposed to require the owner to be responsible for fire prevention at a construction site and maintain a 24-hour watch. Discussion centered around standard contract language, who controls the site, and whether fire protection is really an owner responsibility when means and methods are a contractor responsibility. APPA has coordinated comments on these proposals.

Rich Davis, recently retired from Evergreen College, chaired a group reviewing changes to NFPA 70 (the National Electrical Code) and conducted a survey to see if due to broad-based efforts to increase the energy efficiency of lighting and other electricity-consuming devices meant that existing codes resulted in over-sizing electric service and thus increased first costs to buildings as well as increasing arc-flash hazards. While the results did not have an immediate effect on code requirements we provided valuable information that may lead to changes in future.

As a group, ASCC members responded quickly to a new code NFPA 3000: Standard for an Active Shooter/Hostile Event Response (ASHER) Program. Since Columbine and Virginia Tech, educational facilities have been faced with a new hazard, active shooters. Several organizations initiated practice drills but many have not. NFPA 3000 attempts to fill a void. However, the initial draft of NFPA 3000 required a live practice drill for every building, every year, with building occupants. While a practice drill every year might work well for a single K-12 school building, when there's a college campus that

may have 30 buildings or more, there isn't enough time in the year, month, or week to plan or execute the initial requirement for practice drills. APPA members provided over one-third of the comments to the draft standard and helped shape it so it could provide meaningful awareness and preparation for the campus and occupants. The standard was released to the public in March this year in a much more manage-

able form, and ASCC sponsored a presentation at the APPA Annual Conference in August.

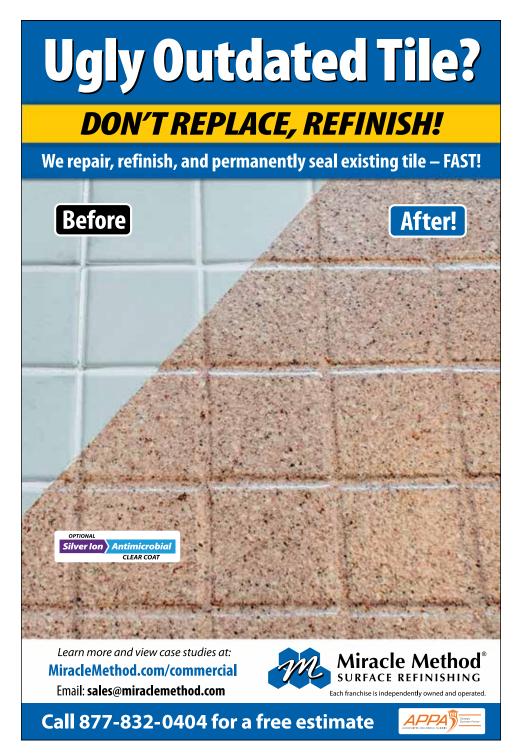
The ASCC initiated webinars this year to provide educational opportunities to approximately 2,000 attendees about different issues related to codes and safety. Based on the attendance, the webinars are a hit; they will continue. ASCC members are eager to hear suggestions of topics for future webinars.

The ASCC has supported efforts to become and SDO and a dedicated team of experts drafting a standard for Total Cost of Ownership (TCO). Last year, APPA 1000 was approved! The work continues with folks working on guidance to implement TCO. It's a big effort with over 20 people providing input under Ana Thiemer and Deke Smith's leadership.

In summary, the ASCC has made connections throughout the codes and standards industry. We have helped make APPA and its members valued and valuable sources of information for the built environment. As operators, and builders of large and diverse facilities, we have an opportunity to create meaningful influence on the industry. It's a unique and challenging opportunity and all ASCC members are happy to contribute. The work is rewarding for everyone in APPA whether contributing through volunteer efforts or taking advantage of the results.

I encourage all APPA members to think about how they can contribute either through their expertise or time. Sometimes there is no recognition, other times the recognition is between colleagues. The volunteer opportunities that APPA has are wide and important. Think about it. Volunteer. (\P)

Ted Weidner is an associate professor at Purdue University and consults on facilities management issues primarily for educational organizations. He is a member of the APPA Standards and Codes Council and can be reached at tiweidne@purdue.edu.





Internships: Enhancing Your Facilities **Network**

By Kristie Toohill



nternships in higher education are gaining in popularity. In support of making educational facilities a profession of choice, APPA encourages members to establish a facilities-related internship program and to make internships available for students seeking real-world experience. Both students and institutions recognize the potential value of internships as a significant part of preparation for careers and future leadership in facilities management. APPA and its community have been focused on growing our profession and ensuring that the next generation has a good foundation in facilities. In the current job market, employers are not only looking for workers with the right educational background, but for those with practical work experience in which they have demonstrated their abilities.

STUDENT INTERNSHIP PROGRAM

The APPA Student Internship Program offers a wide range of opportunities for students to enhance their personal and professional growth. Many individual institutions excel at offering internships to students through the facilities management department, but these internships are all different and are not necessarily connected to APPA. By developing a more formalized internship program, we can ensure that in addition to providing experience in specific

operational projects and tasks, students can find some consistency in the practical experience they gain, an awareness of the opportunities available in educational facilities, and an early connection to

The program is open for students at all levels and recent graduates in multiple disciplines. The typical fields in educational facilities may include facilities management, project management, construction management, safety, energy/sustainability, information technology, business administration, and training and development, among others. All APPA member institutions are encouraged to participate. Each host institution determines its own internship structure, including internship type (academic or nonacademic), duration, and scheduling. In addition to the internship structure, the host institution also determines funding for positions and/or other benefits, if available.

There are volunteer universities participating in a pilot program this summer. The feedback from this program will be utilized to improve and finalize the program before rolling it out to all APPA members. In the near future, the APPA website will include a newly designed webpage for the APPA student internships. Job postings, communications, resources, and more will be available for students and host institutions.

TASK FORCE

The APPA Student Internship Task Force reports to the Vice President for Information and Research and is supported by the APPA Board of Directors. To date, the task force has researched existing internship programs and best practices, developed program criteria, identified procedures and guidelines, developed the application process, and designed a

specific webpage. The task force meets monthly via conference calls and will continue to finalize the next steps for the program, such as creating a network of supporters, identifying strategies to connect to students and academic programs, building communication methods, creating a marketing plan, and so much more!

Sincere thanks to all the volunteers who have devoted time to develop this new APPA program:

Kristie (Kowall) Toohill—Chair (MAPPA)

Jessica Abbott (ERAPPA)

Kent Andersen (RMA)

Beth Clark (ERAPPA)

David Cox (MAPPA)

Anita Dosik (APPA)

Mac Gao (MAPPA)

Steve Glazner (APPA)

Gene Gussenhoven (RMA)

David Handwork (CAPPA)

James Harrod (MAPPA)

Markus Hogue (CAPPA)

Brian Johnson (RMA)

Leslye Kornegay (SRAPPA)

Winnie Kwofie (PCAPPA)

Erin Marsh (MAPPA)

Vimol Mitchell (RMA)

John Morris (SRAPPA)

Terry Pellerin (ERAPPA)

Gig Supanichrattana (MAPPA)

Tim Thimmesch (MAPPA)

Dave Turnquist (RMA)

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Norm Young (ERAPPA)

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PROGRAM GOALS



BENEFITS OF APPA STUDENT INTERNSHIP

Benefits to Institutions:

- · Bring new ideas to institution
- Learn new perspectives
- Enhance relationships with college and community
- Mentor potential future employees

Benefits to APPA Organization:

- Promote educational facilities
- Expand partnership with institutions
- · Enhance facilities networking
- · Connect with new generations

Benefits to Students:

- Learn new skills through professional experience
- Gain experience in facilities management settings
- · Build networking in their chosen career field
- Free access to resources and services

PROGRAM ROLES

APPA

- Provide internship website—(will be included on the APPA Job Express page)
- Review and publish internship positions on APPA Job Express
- · Continue to assist in developing the internship program

Host

- Submit internship position(s) on APPA Job Express
- Responsible for all communication with applicants
- Inform APPA of chosen candidate(s)
- Complete and submit required documents to APPA

Intern

- Apply for free APPA student membership
- Apply for position(s) posted on APPA Job Express
- Responsible for all communications with employers related to individual postings
- Utilize APPA website and social media to get connected with the facilities network
- Complete and submit required documents to supervisor and/or APPA

GET INVOLVED

It's FREE to join the APPA Student Internship Pilot Program. If you are interested in joining, feel free to contact Steve Glazner at *steve@appa.org* or Anita Dosik at *appainternship@appa.org*. ③

Kristie Toohill (formerly Kowall) is associate director of facilities management at Illinois State University in Normal, IL. She serves as the APPA Student Internship Task Force Chair and is a member of the Information and Research Committee. She can be reached at *klander@ilstu.edu*. Tanaporn "Gig" Supanichrattana is a project coordinator at Illinois State University and can be reached at *tsupani@ilstu.edu*. Mac Gao is also a project coordinator at Illinois State University and can be reached at *thmago@ilstu.edu*. Gig and Mac assisted on this article and are members of the APPA Student Internship Task Force; this is their first article for *Facilities Manager*.

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Options for Industrial Water Reuse

By Jared Galligan

very day in the U.S., more than 355 billion gallons of water are withdrawn from surface and groundwater sources to serve industry and the public, according to a 2010 report from the U.S. Geological Survey. As the strain on water sources steadily increases, it is critical for all water users to work toward water conservation.

The primary drivers towards water recycling and reuse practices are environmental compliance and water availability. Every five years, a facility that discharges to a public body of water must apply for and renew its National Pollutant Discharge Elimination System (NPDES) permit. During the renewal process, the local regulating authority may choose to impose tighter discharge restrictions on specific

constituents. In states like Iowa, iron and sulfate are targeted, while in Minnesota and Wisconsin, phosphorus is under greater scrutiny. The ongoing permitting costs, costs to comply with new discharge restrictions, or the threat of not being granted a permit are driving more facilities toward minimal or Zero Liquid Discharge (ZLD) operations.

For those facilities that receive municipal water or discharge to a Publically Owned Treatment Works (POTW), water availability may become an issue. As infrastructure continues to age and the costs to replace approach the hundreds of billions of dollars, according to a 2012 Washington Post article, communities may not be able to supply facilities and may be forced to choose between supplying residents or

supplying industry.

Those plants that are still served may face double-digit increases in water or sewer costs to maintain their services. It is these costs that have companies looking at alternative water sources, installing their own intake systems (surface or well), or evaluating reuse options within the facility.

Water reuse and recycling projects can be one of the most difficult water treatment processes to design and implement. These treatment processes often require a combination of chemical and mechanical solutions to be successful. They must also be designed by someone familiar with water quality requirements, air and water permitting, and the nature of plant operational cycles.

While it is easiest to design a greenfield plant to operate with a water reuse, or ZLD system, any plant in operation today must look to retrofit existing equipment. Generally speaking, the simplest and



Cold Lime Softening Clarifier at a Western dry grind ethanol facility where a ZLD system was implemented. CLS is this decade's old technology that is making a comeback as it is common in



Graywater reuse solutions have used a combination of: filtration, microfiltration, ultrafiltration (shown above), and reverse osmosis.

lowest cost option is to install equipment at the front end (raw water intake) of the plant to minimize waste water generation at the back end of the plant (i.e., cooling tower blowdown).

Because there is no single design that works for all applications, it is important to find the best integrated solution for each individual plant. In order to create a successful water treatment system design for a plant, it is necessary to have a thorough understanding of the chemistry and equipment aspects and plant conditions, such as: plant design, operating conditions, available water quality and quantity, available personnel and training, capital and operating budgets, and environmental restrictions.

Most water reuse and ZLD systems use one or multiple of the following water treatment technologies, in order of capital costs: chemical feed systems, membrane filtration, reverse osmosis, evaporation ponds (if climate allowable), cold lime softening, and evaporation/crystallization. While evaporation/crystallization may seem like the simplest solution, its initial capital investment and ongoing energy costs greatly exceed all other technologies combined.

As groundwater sources become more limited, facilities old and new are looking at alternative water sources to supply their plant. One of the most common sources today is municipally treated waste water, called graywater. This low cost, or sometimes free, water source is abundant and does not strain local water sources. While at first attractive from a financial perspective, graywater carries many

concerns in designing a water treatment system. The most common concerns in using graywater center around its variability from hour to hour and day to day, and its nutrient content.

Constituents like phosphorus and ammonia, which are common and abundant in graywater, can be costly to remove, and if left untreated can lead to scale formation on heat exchange surfaces, corrosion, and other biological-based concerns. The suspended solids content is usually much higher than most groundwater sources and requires its own method of treatment.

A Midwestern United States ethanol facility implemented a graywater reuse system that eliminated their need for freshwater. While first designed to operate on potable water completely, during construction the facility learned the municipality could not supply the quantity of water required by the ethanol producer. Forced to find another water source, the municipality offered to supplement their potable water with graywater to meet their demands. The alternative water source changed the facility's planned water treatment system to include microfiltration, a membrane-based filtration system excellent at removing suspended solids and other organics common to graywater, and additional reverse osmosis capacity. The plant has been operating successfully since system integration almost ten years ago. This facility was the first of its kind to use the technologies of microfiltration and reverse osmosis together for graywater reuse.

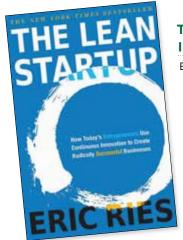
As water reuse and recycling projects continue to take center stage in a facility's long-term environmental plan, water-related projects will become even more common. Creative engineering and treatment technologies will continue to drive their advancement and further water conservation.

Jared Galligan is capital projects manager at U.S. Water in St. Michael, MN, and can be reached at *jgalligan@uswaterservices.com*. This is his first article for *Facilities Manager*.

the bookshelf

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

hange is the one constant in the world. Time changes, customers change, products change, everything changes. How we respond to change affects us and our environment. Here are two books that look at change.



THE LEAN STARTUP: HOW TODAY'S ENTREPRENEURS USE CONTINUOUS INNOVATION TO CREATE RADICALLY SUCCESSFUL BUSINESSES

Eric Ries, Currency, 2011, 336 pp., hardcover, \$28; softcover, \$15.95; ebook, \$13.99; audiobook, \$23.95

The facilities industry is changing. Sure, occupant needs haven't changed significantly; there's always been a demand for a comfortable work environment even when the comfort was provided by a stove in the middle of the room. However, the sophistication of work environment demands has pushed changes beyond those of new buildings or materials. Facility officers

must plan, measure, test, and adapt faster than ever before. Developing a rapid-fire innovation habit to keep up with user demands is well described in Eric Ries's The Lean Startup.

Some may argue that facility operations hardly represent a startup enterprise. But think about what is happening at your campus or facility today. The customers change at least once each year: As new students come to campus, they represent 25 percent or more of the total customer base, and they are different. They must be educated about how to work and learn in a new environment, but the facilities operation must also change to meet the needs and new demands of this large shift in customers.

What works? What doesn't work? What minor changes in how work gets done result in large changes in customer response? Did a change make things better or worse? How long did it take to discover that a responsive change was good or bad? What was learned from customer response/feedback? These questions and others are addressed by Ries, an entrepreneur and successful businessman, in The Lean Startup.

Education facilities have tremendous inertia; many still provide learning spaces that haven't changed in over 100 years aside from the addition of technology. There are still four walls, a ceiling, and a floor; the

students still sit in a set location looking at a writing surface for instruction (or for a projection of the writing). Research is still conducted in a specialized location, and students rest or recreate in separate areas from their classroom space. But as new students and instructors come to campus, these traditional modes are changing; the facilities and facilities operation must change also. But how?

The answers as to how a facilities organization must change are specific to a campus's mix of buildings and occupants—every campus is unique. One process does not fit all. But the process to identify the changes that work or don't work is described in *The Lean Startup*. The "secret sauce" is hardly secret. It's more an issue of recognizing that small steps are better than big ones when the solution is still unknown: Quick, small steps are better than slow, large steps; and quickly adjusting to an obstacle or negative response is better than accumulating a large list of problems. These are just a few of the techniques identified and discussed.

The techniques described are focused on a startup organization or company where the workforce is small, and communications can quickly touch everyone. But they can also be applied to a large organization that is entrepreneurial and makes changes with small, creative teams. Simply choose a work group or building and test a change, advises Ries. Measure the results and share feedback widely. Don't be afraid to make a mistake, but do remove the mistake quickly.

The book is compelling, easy to read, and has a website with additional information and exercises for the motivated reader. Clearly, the author practices what he preaches by recognizing that a book is static, but that a website can facilitate quick changes and provide better tools for learning and application. What a concept!

WHEN: THE SCIENTIFIC SECRETS OF PERFECT TIMING

Daniel H. Pink, Riverhead Books, 2018, 272 pp., hardcover, \$28; softcover, \$30; ebook, \$14.99; audiobook, \$20.95

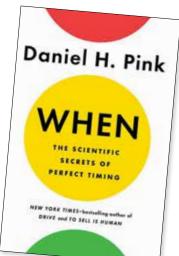
Are you an early riser or do you prefer to sleep late and work late? Why do some people get tired in the afternoon while others are very active? Why do some efforts result in disaster or soaring success depending on when they were conceived and executed? These are just some of the questions addressed in When: The Scientific Secrets of Perfect Timing by Daniel Pink. This is the third book by Pink reviewed here; he's written six books to date. Beginning with Free Agent Nation: The Future

of Working for Yourself in 2001, Pink continues to break the shackles of conformity and explore the details of the world around us.

When explores the relationships between time and the mind. Time—or more specifically, its measurement—is a human invention created to provide a measure of light and dark cycles, hot and cold seasons. The units of time were conceived by humans and not derived from nature like the meter or kilogram.

Interestingly, time or how we experience it influences each of us. Some people are "larks"—they get up early and do their best work in the morning. Others are "owls" and excel in the evening or nighttime. But the cycle is not limited to a 24-hour window, there are subdivisions in a day where we perform well or poorly.

There are physiological influences that occur over time. Teenagers prefer late hours and don't perform well early in the day until they are nearly 30. Older adults have cycles that affect performance and are more prone to mistakes at the trough of their cycle. There are ways to overcome or shorten the troughs, such as the "power nap" or adjusting one's diet. Pink explores these and other devices in an enjoyable manner in *When*.



As he has done in all his books, Pink reveals details about human interactions that would be buried in scientific journals if not for his artful style and inquiring mind. When is an enjoyable read, something that will provide a release from the pressures of the day and maybe answer some nagging questions about why you're so astonishingly brilliant sometimes and frustratingly dense other times. (§)

Ted Weidner is an associate professor at Purdue University and consults on facilities management issues primarily for educational organizations. If you

would like to write a book review, please contact Ted directly. He can be reached at tjweidne@purdue.edu.





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S-5! has published its 2018 Attachment Solutions & Products brochure and made it available for download. The 20-page brochure can be found at https://www.s-5.com/resources/ download-library, with all other S-5! literature. The brochure contains information about what S-5! attachment products can be used for and how to use them correctly. The

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products are extremely versatile, fitting most standing-seam and exposed-fastener metal roof profiles, including most structural and architectural profiles. In the brochure, find solutions for attaching solar panels, snow retention systems, signs, banners, pipes and conduits, HVAC and rooftop equipment, satellite dishes, lightning protection, fall protection, and more. For more information visit S-5! at www.s-5.com.

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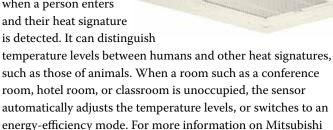


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continuously scans the room for occupancy and adjusts to maintain comfort. The sensor intelligently monitors the thermal profile of a space, automatically identifying when a person enters and their heat signature

Electric US, Inc. visit www.mitsubishipro.com.

is detected. It can distinguish temperature levels between humans and other heat signatures, such as those of animals. When a room such as a conference room, hotel room, or classroom is unoccupied, the sensor automatically adjusts the temperature levels, or switches to an





WIEGMANN offers the WA series of NEMA 4X-rated electrical enclosures with screw covers. These stainlesssteel enclosures offer protection for electrical components in a variety of harsh environments. Wiegmann's WA series NEMA 4X screw cover enclosures feature 304

stainless-steel construction with continuously welded seams that are ground smooth. Covers include closed cell, oil-resistant neoprene gaskets. Stainless-steel screws thread into sealed wells to maintain a superior seal. This enclosure design is intended for use as a wiring box, junction box, pull box, or terminal box. The enclosures are free of standard holes or knockouts, ensuring that the units are sealed against liquids or dust in a variety of outdoor or corrosive indoor applications. For further information on Wiegmann visit www.hubbell.com/wiegmann/en.

MATS INC. introduces its newest adaptation of the most sustainable multipurpose sports flooring, with additional features



and colors inspired by the latest trends for school sports teams. The new MultiLino collection offers the same professional sports performance and durability as the prior collection, with a new lower cost and lighter-weight materials for quicker installation. MultiLino was engineered to provide a safe playing surface for athletes while resisting damage from tables, chairs, high heels, and street shoes during nonsport school or community events. For more information on Mats Inc. visit http://matsinc.com.

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