

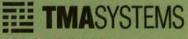
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features

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JANUARY/FEBRUARY 2009 Volume 25 • Number 1



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CAMPUS

Safety AND Security

Planning for Campus Safety By Alan Dessoff

Often called on to address campus safety and security issues beyond their usual responsibilities, these events serve to show how vital the facilities officer's services are to the operations of their campuses.

28 APPA 2009

30

43

22

APPA Participates in Innovative Effort to Enhance Campus Safety and Security

By Ruth E. Thaler-Carter

Nine associations collaborate on a five-stage proactive approach to dealing with emergencies facing educational institutions – both natural and man-made.

36 Blueprint for Safer Campuses

By the IACLEA Special Review Task Force In the wake of the Virginia Tech tragedy, a special campus law enforcement task force showcases 20 specific recommendations for higher education campus safety.

The Price of Paralysis

By Steven C. Thweatt

The author challenges us to consider the potential consequences that decision making paralysis has on organizations, facilities, campuses, and our planet. Isn't inaction actually an action?

columns

JANUARY/FEBRUARY 2009 Volume 25 • Number 1

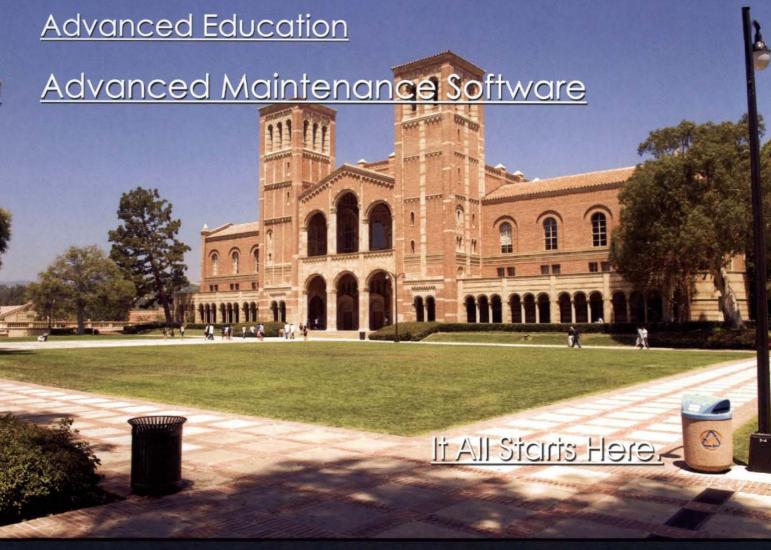


From the Editor By Steve Glazner	4			
Facilities Digest By Anita Dosik	6			
2008 Regional Reports	8			
Executive Summary Facilities — The One Constant Amidst a of Change By E. Lander Medlin		•		
Membership Matters	20			
By Derrick Johnson and Leslie Young				
Code Talkers What's Happening on the Code Front? <i>By Scott Edwards</i>	48	5	0	
Knowledge Builders				the man
The Development and Application of Pol Based Tools for Institutional Green Buildin By Anthony Cupido, P. Eng.	licy-	H24.	7/-26.9 W- 9/-34.7 II T-	177477 757516 177477 757516 177477 757516 17757 3470 7
The Bookshelf				and important
Book Review Editor: Theodore J. Weidner, Ph.D., P.E., AIA			Guidelines for	
New Products Compiled by Gerry Van Treeck			Transportation Safety, Security, and Risk	rofah:
Ad Index			Chicas	refabricating ARCHITECTURE Investmentations



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from the editor | by steve glazner



There is a lot to look forward to

from APPA in 2009. Through the current economic downturn, you will want to turn (or return) to APPA as your association of choice for answers and assistance as you support and guide your educational facilities operation. Following are just a few things coming your way this year:

Certification Exam Day for EFP. In addition to the several locations and dates already scheduled for APPA's certification and credentialing preparatory courses and exams, we will also introduce several Exam Days for the Educational Facilities Professional credential. The first will be conducted February 28 at locations throughout North America, thus allowing the student an opportunity to take the EFP exam at campus sites closer to home.

Improved and Enhanced Facilities Management Evaluation Program. A task force of FMEP participants is in the process of evaluating the program itself and will introduce improved processes and reports later this year.

Improved and Enhanced FPI Report. This year we introduced the new Essential Question Set for the Facilities Performance Indicators survey, and the FPI Report is built around those critical measures and metrics that will help you lead your facilities operation.

Development of the Digital Body of Knowledge. An ever-growing team of facilities professionals are in the process of updating the Facilities Management manual, which has important ties to the Institute for Facilities Management and our certification programs. The content will be available in early 2010 as a searchable library through APPA's website. Past APPA President Maggie Kinnaman serves as editor-in-chief for the BOK project.

New Books from APPA. Forthcoming titles include Facility Management Shared Services, an e-book on contracting from Jeff Campbell, and Facilities Reinvestment, written by Harvey Kaiser and Eva Klein.

Leadership Academy. April 26-30 are the dates for the 2009 Academy session, in

Ft. Lauderdale, Florida. As a 2008 grad of the Academy, I can attest to the value and meaningful content of the program throughout its four tracks. It's a great experience for your personal, professional, and organizational development, and I highly recommend it.

APPA 2009: Focusing on the Critical Few. Stephen R. Covey. Vancouver, British Columbia. High-level programming on leadership and collaboration; connection and communication; and solution revolution and technology. Be there.

Expanded Webinar Series. We had great success in 2008 with our webinars on *The Green Campus*, LEED points using APPA's *Custodial Staffing Guidelines*, and guidance on the FPI survey. With travel and training budgets being affected everywhere, APPA will increase the number and variety of webinar topics in 2009. On the drawing board are sessions on recycling and food composting; campus safety and security; capital budgeting; master planning; financing utility upgrades; developing a climate action plan; code advocacy; total cost of ownership; building staff morale; and much more.

We know that 2009 will be a difficult year for many of us. Do not hesitate to rely on APPA and your regional and chapter organizations for assistance, information, and reassurance. We are here to serve you. (5)



Coming in March/April 2009

- Special theme on Energy, Utilities, and Sustainability
- National Wildlife Federation environmental report card
- APPA's Sustainability Implementation Guide
- Case studies



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> Design & Production touch three

> > Printing Corporate Press, Inc.

Editorial Office 703-684-1446 ext. 237 Fax: 703-549-2772

Advertising

Gerry Van Treeck, 847–562–8633 gvtgvt@earthlink.net

www.appa.org/facilitiesmanager

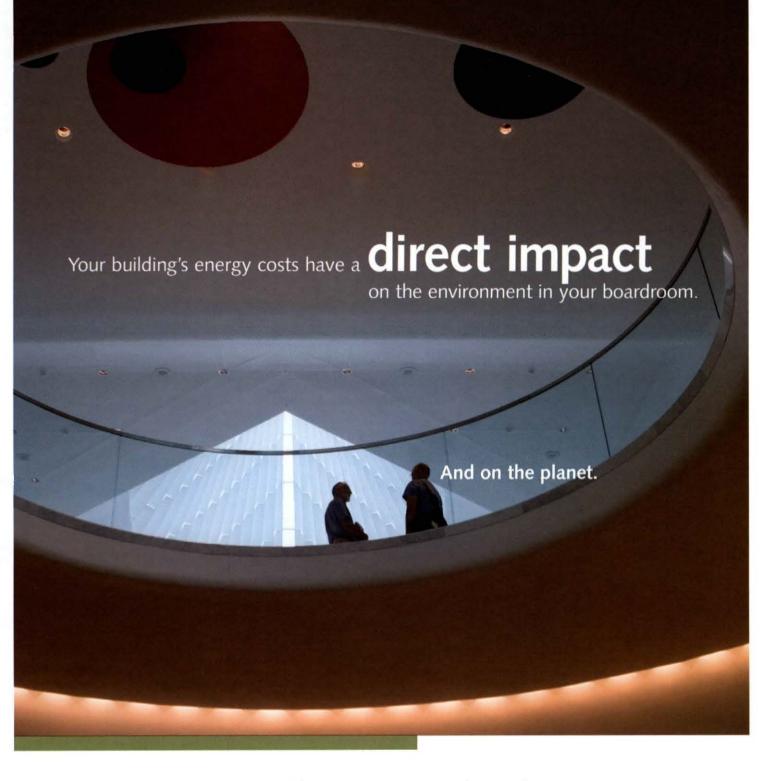
Facilities Manager (ISSN 0882-7249) is published six times a year (January, March, May, July, September, and November). Send editorial submissions to steve@appa.org. A portion of APPA's annual membership dues (\$53) pays for the subscription to Facilities Manager. Additional annual subscriptions cost \$66 for APPA members, \$120 for non-members. Contact the editorial office for article reprints.

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POSTMASTER: Send address changes to Facilities Manager, 1643 Prince Street, Alexandria, VA 22314-2818.

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. 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 5,200 educational facilities professionals at more than 1,500 learning institutions throughout the United States, Canada, and abroad. For more information, visit us at www.appa.org.



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2008 THOUGHT LEADERS REPORT RELEASED

APPA recently published the third report in our Thought Leaders Series - The Challenges of Demographic Changes and Accountability to Campus Facilities. Sponsored this year by Jacobs, the participants of this report identified major patterns and themes, significant challenges, relevant strategies and strengths, as well as potential obstacles to success for the educational facilities professional and their institutions. Also, as in the past two years, the facilities professionals in attendance identified the top critical facilities issues, and formulated specific questions to engage senior institution officers and facilities professionals in further dialogues at their individual institutions.

The summary report PDF is available at no charge to everyone at *http://appa.org/ tools/measures/tls.cfm*. Members can also request a free printed copy through the APPA bookstore at *http://appa.org/Bookstore/ product_browse.cfm?itemnumber=518*. There is a \$15 charge for non-members requesting the printed copy.

THE CHALLENGES OF DEMOGRAPHIC CHANGES AND ACCOUNTABILITY TO CAMPUS FACILITIES

Including The Top Facilities Issues



SHOW APPA YOUR CAMPUS COLORS CONTEST WINNERS

facilities

APPA has found some of the nation's most unique campuses through the Show APPA Your Campus Colors contest.

Students across the country submitted over 300 photos within four categories petitioning their school's facilities to be the absolute finest. Only 20 photos were selected as finalists, and the winners were determined from several thousand votes.

THE 2008-09 CAMPUS COLOR AWARD RECIPIENTS



OUR HOUSE – Unparalleled Stadium/Arena Milwaukee School of Engineering Submitted by Troy Giljohann



ROCKIN' LANDSCAPE – Most beautiful aspect of a campus University of Florida Submitted by Sarah Jane Guerrero

APPA also congratulates the other schools listed as finalists:

- Brigham Young University
- Michigan State University
- Saint Anselm College.

- · University of North Carolina (Charlotte)
- University of Tennessee (Knoxville)
- · Weber State University

Visit the APPA Fan Page today to see if your school participated in this contest. If not, make sure you join one of APPA's many virtual connecting opportunities to stay updated on future initiatives. Please see page 20 of this issue for more information.



STUDENT HANGOUT – Unique student union or gathering place Virginia Tech Submitted by Caleb Sharp



CHARACTERISTIC ARCHITECTURE – Distinctive construction Rose Hulman Institute Submitted by Sonia Cheung

EVENTS



2009 SMART AND SUSTAINABLE CAMPUSES CONFERENCE SET FOR APRIL

Environmental consciousness is at an all-time high and colleges and universities are experiencing increased pressures from stakeholders to lower carbon outputs, improve green campus operations, and graduate students equipped to lead **sustainability** initiatives in all sectors. Join APPA, NACUBO, AASHE, and several other education

associations for a comprehensive symposium on **sustainability**, including operational solutions, smart growth policies, and strategies for achieving climate neutrality.

The 4th Annual Smart & Sustainable Campuses Conference will be held April 5-7, 2009 at the Inn and Conference Center adjacent to the campus of the University of Maryland. Housing accommodations will also be at the Inn and Conference Center.

For more information, visit http://www.nacubo.org/x10606.xml.

FROM THE DESK OF PROFESSIONAL DEVELOPMENT

HAPPY NEW YEAR! There is no time like the present to renew your drive for professional excellence through our development training opportunities. To help in that effort here are a few key programs you will want to either register yourself or have a colleague take advantage of:

February 27-28, 2009

San Antonio, TX EFP Prep Course & Exam

February 28, 2009

EFP Exam Day For locations and additional details, contact Suzanne Healy, director of professional development, at *suzanne@appa.org*

April 6-7, 2009

Asheville, NC SFO Summit

April 26-30, 2009 Ft. Lauderdale, FL Leadership Academy & Supervisor's Toolkit

April 26-30, 2009

Ft. Lauderdale, FL EFP Prep Course & Exam CEFP Exam

July 8-10, 2009

Vancouver, BC Canada APPA 2009: Focusing on the Critical Few

For the latest on other programming offerings like our webinars and other development opportunities, please visit us at http:// www.appa.org/professionaldevelopment/.

APPA 2009 EXHIBIT HALL OPEN FOR BOOTH SALES

To APPA Business Partners: Join us at APPA 2009: Focusing on the Critical Few in beautiful Vancouver, British Columbia July 8-10, 2009. With Stephen R. Covey and many other worldclass presenters scheduled, APPA's annual conference promises to be a tremendous professional development experience for campus facilities professionals. For information on exhibiting at APPA 2009, contact Maxine Mauldin-Chappell at maxine@appa. org or 703-684-1446 ext. 245, or visit the exhibits website at http://appa.org/ training/appa2009/exhibitors.cfm. We look forward to seeing you in Vancouver.

APPA EVENTS - 2009

Apr 5-7 Smart and Sustainable Campuses Conference College Park, MD

Apr 6-7 SFO Summit Asheville, NC

Apr 26-30 Leadership Academy Fort Lauderdale, FL

Apr 26-30 Supervisor's Toolkit Fort Lauderdale, FL

Jul 8-10 APPA 2009: Focusing on the Critical Few Vancouver, BC, Canada

Jul 11 EFP Prep Course, EFP Examination, and CEFP Examination Vancouver, BC, Canada

Jul 12 EFP Examination Vancouver, BC, Canada

Sep 6-10 Institute for Facilities Management Hilton Head, SC

Sep 6-10 Supervisor's Toolkit Hilton Head, SC

Sep 11 EFP Prep Course, EFP Examination, and CEFP Examination Hilton Head, SC

Sep 12 EFP Examination Hilton Head, SC

Sep 20-23 RMA Regional Meeting Tucson, AZ

Sep 26-30 CAPPA Regional Meeting Grand Forks, ND

Sep 27-30 MAPPA Regional Meeting Iowa City, IA

Oct 4-7 ERAPPA Regional Meeting Portland, ME

Oct 7-9 PCAPPA Regional Meeting Universal City/Hollywood, CA

Oct 24-27 SRAPPA Regional Meeting Daytona Beach, FL

OTHER EVENTS - 2009

Apr 30-May 1 Symposium on Building Envelope Sustainability Washington, DC

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

NEW MEMBERSHIP YEAR APPROACHES

The 2009-10 APPA membership year begins April 1, 2009 and runs through March 31, 2010. The first membership dues notices will be mailed in February. Prompt payment is greatly appreciated and spares APPA the expense of sending multiple invoices. Your regional membership dues are also included on this invoice, so prompt payment helps your region as well. Please contact Director of Membership & Outreach Tom Base at *tom@appa.org* with questions regarding APPA membership. CAPPA ERAPPA MAPPA PCAPPA RMA SRAPPA 2008 REGIONAL REPORTS

> f you missed your regional conference last fall, this annual report will update you on what happened at the 2008 regional meetings.

APPA's six regions serve member institutions across the United States and Canada. They function independently from international APPA and offer their own educational programs, annual meetings, publications, and other benefits. Each region also maintains its own set of officers, committees, and activities.

Participating in regions and state and local chapters is a great way to become active with APPA. Many APPA board and committee members began their service at a regional meeting.

CAPPA ERAPPA

REGIONAL REPORTS

Central Region

J.B. Messer CAPPA President

> ide open spaces. Songs around a campfire. Howls of a coyote in the night. It's what drew those first cowboys to Oklahoma, and it's the same spirit for adventure that brought us to Oklahoma City for the CAPPA 2008 Annual Educational Symposium & Business Exposition. The annual event reminded us that we're in it for leadership, in it for adventure, in it for self improvement. We provided an outstanding lineup of seminar speakers and exhibit business partners from throughout the country who are experts in their fields. And we still found plenty of time for fun - golf, tours and networking.

> From October 10-15, the CAPPA 2008 event had over 400 higher education and business partner (63 exhibition booths) attendees at the Sheraton Hotel, a block from Oklahoma City's Bricktown Entertainment District. Major events included a Sunday Night Football Party, Monday morning Keynote/Wel

come Breakfast (keynote was Chancellor Dr. Glen Johnson, Oklahoma State Regents of Higher Education), Monday evening outing to the National Cowboy & Western Heritage Museum (with square dancing and caller), Tuesday morning tour of host institution Oklahoma City Community College (educational session "Campus Transformation" with The Trane Company), Tuesday evening



CAPPA 2008: Oklahoma City Community College Host Staff

Host Staff Top to Bottom (L-R): Gary Belcher, Natalie Tobin, Tamara Duncan, Larry Barnes, Dave Anderson, Steve Duncan, Chris Snow, J.B. Messer, Paula Whitehead.

Awards Banquet (entertainment Captain Jack Parker), and the Wednesday morning Annual Business Meeting.

On Monday and Tuesday, four concurrent training tracks were provided through the coordinated efforts of the University of Oklahoma, University of Central Oklahoma, Oklahoma State University, and Oklahoma City Community College facilities department staffs. CAPPA 2008 also hosted APPA's Supervisor's Toolkit (31 participants) provided by CAPPA's certified instructors Steve McClain and Bill Tam, and a two-day Project Management Workshop (19 participants) provided by Bob Casagrande (SMU) and Andy Hicks at Alpha Building Corporation.

The CAPPA committees are thriving and dynamic entities of the organization.

2008-2009 CAPPA Board of Officers:

President: J.B. Messer, Oklahoma Cty Community College 1st Vice President: Larry Zitzow, University of North Dakota 2nd Vice Pesident: Ted Weidner, University of Nebraska-Lincoln 3rd Vice President: Bob Eckels, Missouri State University Immediate Past President: Mike Johnson, University of Arkansas Senior Representative: Dave Millay, University of Arkansas, Little Rock Junior Representative: John Greene, Trinity University Treasurer: Sue-Anna Miller, University of Oklahoma Secretary: Bobin Boley, Johnson County Community College Professional Development: Pat Apel, Maryville University of St. Louis Information Services: Terry Major, Southeast Missouri State University Membership: Matt Kadavy, Nebraska Wesleyan University Newsletter Editor: Vickie Younger, Missouri State University Historian: Ed Rice, Kansas State University

2009 Regional Conference 🔵 🔵

CAPPA's 2009 Regional Conference (Educational Symposium & Business Exposition hosted by the University of North Dakota staff) will be held September 26-30, 2009 in Grand Forks, ND.

CAPPA's annual Technology Conference will be held in San Antonio on February 27-March 3, 2009.



Willy Suter and Keith Woodward at the 2008 ERAPPA Conference.

Eastern Region

Dan Gearan ERAPPA VP of Technology & Communications

ore than 630 attended with 139 institutions represented at the 2008 ERAPPA Annual Meeting which took place September 28-October 1. The theme for the conference, ERAPPA 2008 Your Key to Success, offered many ways for the educational program and Business Partners to engage attendees and become part of their success. The keynote speaker was Dr. Ben Carson who brought us through his remarkable journey from a tough inner-city youth to a history making neurosurgeon. His talk celebrated the power we all have to excel and positively influence others.

The conference was hosted by the Maryland/DC Chapter under the leadership of Kevin Mann and Sheri Vucci. The host committee provided a 5-track education program and fantastic entertainment that took advantage of the host city of Baltimore. The conference finished with a wonderful Awards Banquet where outgoing President Willy Suter (American University) explored many types of "keys" and related how we are keys in our organizations with challenges that ERAPPA can help solve. "I have been honored to serve as your president" said President Suter, "and as we look forward to the upcoming meeting in Portland, I encourage you to pick up on the theme of that meeting and imagine what we can become if we take full advantage of the keys to success ERAPPA represents."

At the Awards Banquet recognition was made to ERAPPA scholarship recipients and APPA award recipients. ERAPPA Certificates of Appreciation and Merit were awarded to Committee Members, retiring Board Members, and Past Chapter Presidents.

Bylaws changes and updates were passed at the annual meeting, which included changing the name of the Education Committee to the Professional Development Committee, changing the title of the Vice President for Education to the Vice President for Professional Development. The makeup of the Scholarship Committee changed adding the Treasurer and the Secretary to this committee. And finally, the ERAPPA Scholarship Committee will return the applications of those not receiving an ERAPPA scholarship to their home chapter for possible inclusion in any chapter scholarship process.

Keith Woodward (Quinnipiac University) took over the President's position at the end of the annual meeting and looks forward to continuing to promote ERAPPA as the source for education and professional collaboration.

"I am going to try to continue to steer the ERAPPA ship in the same positive direction of the men and women before me. This year I am going to focus on membership and I am going to ask for your help." Woodward said in his inaugural address. He went on to ask everyone in attendance to identify potential new members back on our campuses and to encourage them to get involved.

In his closing remarks borrowed a phrase from Henry Wadsworth Longfellow, who was born and raised in Portland Maine (site of the 2009 meeting) and whose house is listed on the national registry of historic places and is a block away from where we will be staying next year.

"One if by land, and two if by sea, three if by air; and I on the ERAPPA shore will be, ready to ride and spread the news through every facilities department from Halifax to Ottawa to Pittsburgh to Washington, D.C. of your arrival to Portland.... down by the harbor.... "

2008-2009 ERAPPA Officers:

President: Keith Woodward,
Quinnipiac University
President-Elect: Jim Barbush, Pennsylvania
State System of Higher Education
Secretary: Kevin Mann,
Salisbury University
Treasurer: Lou Dursi,
Princeton University
Vice President of Annual Meetings:
Anne Babcock, Carleton University
Vice President of Chapter Affairs:
Terry Pellerin, Worcester Polytechnic
Institute
Vice President of Membership:
Greg Clayton, University of Prince
Edward Island
Vice President of Technology &
Communications Dan Coaran

Communications: **Dan Gearan**, Saint Joseph's College of Maine

2009 Regional Conference 🔵 🔵

The ERAPPA 2009 Annual Meeting will be held in Portland, Maine at the Holiday Inn By the Bay. The conference dates will be October 4 – 7, 2008. The theme is "Imagine."

MAPPA **PCAPPA**

REGIONAL REPORTS

Midwest Region

Gail Riese **MAPPA** Newsletter Editor

In between sessions, attendees visited with our valued business partners at 58 exhibitor booths. The ever-popular large school/small school exchange

> discussions concluded Monday's sessions. Later that evening all enjoyed the NFL Monday night



• he 2008 MAPPA "Partners in Success" Educational Conference and Annual Meeting was held Sunday, October 5 through Wednesday, October 8 at the Frank Lloyd Wright-designed Monona Terrace and Convention Center on the shores of Lake Monona in Madison, Wisconsin. The meeting was co-hosted by the University of Wisconsin-Madison, the University of Wisconsin-Milwaukee, and the Medical College of Wisconsin and was attended by 361 participants from 77 colleges and universities throughout the Midwest.

during the First Timers reception.

The activities on Sunday evening featured a reception for first-time attendees and a general welcome session. On Monday, meeting keynote speaker Professor Andrew Urich of Oklahoma State University used humor to describe five effective persuasion strategies. This was followed by concurrent educational sessions focused on topics ranging from sustainability to customer service best practices and employee motivation techniques.

football game along with faux gaming activities using currency with familiar MAPPA faces.

The annual general business meeting for both MAPPA and MiAPPA was conducted on Tuesday morning. It included committee and officer reports and enthusiastic remarks by APPA Vice President for Professional Affairs Kevin Folsom and APPA Executive Vice President Lander Medlin. Concurrent educational sessions followed until lunch. During lunch, members of the 2008 meeting host committee were recognized for their efforts and officer elections were conducted. Chuck Scott (Illinois State University) was unanimously chosen President-Elect and Brandon Baswell (Michigan State University) was elected Treasurer. Additional concurrent educational sessions followed lunch.

During Tuesday's banquet, outgoing MAPPA President Martha May expressed her heartfelt appreciation to colleagues and mentors for their support. She then recognized outgoing MAPPA Board Member Greg Fichter (Indiana University) for his contributions and presented the MAPPA Meritorious Service Award to past MAPPA and APPA President Alan Bigger (Earlham College). She also presented Presidential Service Awards to Chuck Scott (Illinois State University), past MAPPA president Fred Plant (Valparaiso University), and past MAPPA Newsletter Editor Ernie McVay (Ohio State University).

A special tiara was presented to "Queen" Martha, who then presented the presidential gavel and a scepter to "King" John Ott (Ohio State University).

The banquet closed with a performance by folk singers Lou and Peter Berryman.

Wednesday morning featured closing remarks and walking tours of the UW-Madison historic central campus and west campus cogeneration plant.

The 2008-2009 MAPPA Officers:

President: John Ott, Ohio State University President-elect: Chuck Scott, Illinois State University Treasurer: Brandon Baswell, Michigan State University Secretary: Ralph Zia, Northeastern Illinois University Newsletter Editor: Gail Riese, Purdue University Senior Representative: Jerry Carlson, **Butler University** Junior Representative: Fred Plant, Valparaiso University

2009 Regional Conference 💮 🔵

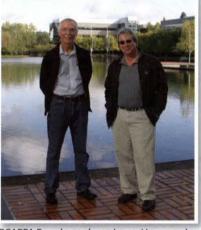
The 2009 MAPPA regional conference will take place September 27-30 in Iowa City, Iowa.

Pacific Coast Region

Robyn Pierce PCAPPA Vice President

his year's PCAPPA conference was held October 8-10, 2008 in Portland, Oregon, and was hosted by Portland State University. The conference theme was "Bridging Public-

Private Partnerships for a Sustainable Future." Over 200 participants were able to enjoy the annual conference in one of the west coasts most livable cities. They were able to enjoy Oregon's natural beauty in the scenery on the Oregon Country Side Tour, while the golfers enjoyed the tree lined course at Charbonneau Golf



PCAPPA Board members, James Vance and Brian Worley, reflecting on campus facility needs as they tour the Nike Headquarters campus in Beaverton.

Course. Portland has a bustling local scene with a large selection of restaurants and shopping, all enjoyed via eco-friendly mass transportation options including the light rail, street car, tram, and pedi-cabs. Evening and afternoon activities included the Shanghai Tunnel Tour, the Best of Portland (Green & Historical) Tour, and the Bridges to Blues Party.

Conference participants from throughout our region listened to keynote speakers and participated in educational sessions covering public private partnerships and sustainability. With emphasis on helping our members through the challenges they face from increasing demands for campus expansion despite declining public financial support, Dr. Lindsay Desrochers, PSU Vice President, spoke about creating opportunities to partner with public agencies, local government and private entities. Christine Ervin, former Assistant US Secretary for Energy and CEO and President of the US Green Building Council, presented on incorporating all facets of sustainability into the campus environment to facilitate efficiency and conservation in operations and construction.

Educational sessions were diverse within the major themes of Public-Private

> Partnerships and Sustainability. As part of the conference, the PCAPPA Board also hosted sessions on "getting to know PCAPPA" and "Small Facilities Forum: Getting it down with limited staff wearing multiple hats." There was also a presentation on the Joint Apprenticeship Program at Cal State University and SETC-United Skilled Trades. Also, this year's conference also provided the first regional delivery

of the Supervisor's Toolkit. PCAPPA is in the process of having three campus level professionals trained and certified by APPA.

Our Business Partners played a big role in the success of the conference again this year. We received significant participation and funding contributions, and the conference facility layout wove the partner booths through the large ballroom, creating great ability for informal discussions and lots of face time.

The Business meeting began with a welcome by President Tony Valenzuela. PCAPPA officers each then briefly took the stage to provide a status update. Members heard that the treasury is sound, the scholarship program is successful and available, and membership is growing.

2008-2009 PCAPPA Officers:

President: Mark Hunter, California Polytechnic State University President-Elect: Robyn Pierce, Portland State University Vice President: Robyn Pierce, Portland State University Conference Coordinator: James Vance, University of Puget Sound Secretary/Treasurer: Brian Worley, Claremont McKenna College Newsletter Editor: Richard Storlie, University of Nevada, Las Vegas College Rep: Towny Angell, Linfield College Vice President Elect Annual Meeting: Tom Brown, California State University - Northridge Awards & Recognition Committee Chair: Tony Guerrero, University of Washington, Bothell Education Committee Chair: Kathleen Schedler, P.E., University of Alaska, Fairbanks Membership Chair: John Wong, British Columbia Institute of Technology Information Services Chair: Richard Storlie, University of Nevada, Las Vegas Professional Affairs Chair: Tony Ichsan, Santa Rosa Junior College Senior Representative: Berger "Buzz" Nelson, University of Nevada/Reno Junior Representative: Tony S. Valenzuela, San Jose State University

2009 Regional Conference D Cotober 6-9, 2009 California State University – Northridge

Facilities Manager | january/february 2009 | 13

RMA SRAPPA

Rocky Mountain Region

Kevin P. Hansen RMA President

eber State University had the distinct honor of hosting the 56th annual meeting of RMA, which was held at the beautiful Canyons Resort in Park City, Utah on September 28th through October 1. Almost 300 RMA members, guests, business partners, and friends enjoyed the unseasonably warm weather, the fabulous mountain and alpine vistas, and an incredible array of presentations and activities during the event. The theme for the event was "Achieving Excellence," and the theme was demonstrated in the venue, in the presentations, and in the activities. Park City was the host city during the 2002 Winter Olympics for several events, including the ski jumping, bobsled, luge, and snowboard aerials. It is home to the Utah Olympic Park, one of only a very few training sites for winter Olympic athletes in the United States.

Among the distinguished guests were Alan Bigger, Immediate Past President of APPA, and Lander Medlin, Executive Vice President of APPA. Also among our distinguished guests were the new RMA members from Idaho. Idaho transferred from PCAPPA to RMA this past year, and we welcome the great folks from Idaho to RMA.

Our conference theme, "Achieving Excellence," relates to the necessity we have as facility professionals to maintain our campuses to world class standards to attract high quality students, faculty, and staff and to create the atmosphere and environment where learning and research can occur unimpeded. This theme was tied into the level of effort and dedication that Olympic athletes must achieve if they are to be successful in competing on the world stage. Both Olympic achievement and facilities achievement are predicated on the same basic principles; a clear vision of what we want to achieve, dedication and persistence in the face of numerous obstacles, and an unwavering desire to be the very best we can be, coupled with lots of hard work. Olympic Gold Medalist Nikki Stone, the first American to win a gold medal in aerial skiing at any Olympics, was our keynote speaker and related her story in earning her gold medal to our challenges as facilities professionals in achieving our goals and making our facilities world class. She was exceptional, and really motivated everyone to greater levels of achievement and success.

The many educational sessions that were presented during the conference highlighted other areas where excellence has been achieved by institutions or business partners, or a partnership of both. For example, Southern Utah University gave a presentation on using native plants to conserve resources, turn problem landscaping areas into stunning water-conserving natural art, and make their campus much more appealing. Utah State University showed how, through a systematic program of preventive and predictive maintenance, safety, and comprehensive performance measurement, they made time available to craftspeople and managers and improved the campus environment for students and faculty. Other presentations covered other essential aspects of facilities management, including long range strategic planning, carbon footprint reduction, electric power management, contractor relations and the synergism that is possible with common goals and understanding, commissioning and recommissioning buildings, and community and higher educational institutions partnershipping opportunities to assist each other in achieving their goals We even had a presentation on what we can learn from Mickey Mouse in terms of customer service, creating a culture of success, and employee loyalty.

Golfers get

ready to start the day on the picturesque

course prior to the RMA 2008 Annual Confer-

ence.

Personal excellence that leads to organizational excellence was addressed by Kirk Duncan, a local entrepreneur who enthralled his audience with his story of the skunk stuck in a jar. Without personal excellence, professional and institutional excellence is much more difficult to accomplish.

Besides the powerful impact of the educational sessions, other events promoted networking, socializing, and an appreciation of the splendor of Utah. Many attendees enjoyed the quiet, relaxing ride on the Heber Creeper railroad through some stunning mountain vistas. Others enjoyed golf on the renowned Mountain Dell golf course. The theme dinner for the conference was a progressive dinner at

2009 Regional Conference 🔘 🔵

Our next RMA annual meeting will be held. September 20 to 23, 2009 in Tucson Arizona and is being hosted by the University of Arizona. the Utah Olympic Park museum. Guests were able to leisurely stroll through the museum while enjoying various food items set up at several different food stations. The history and impact of winter sports on Utah was evident in the museum, as well as the artifacts and history of the 2002 Winter Olympics. The highlight of the evening was the Flying Aces All Stars skijumping show. Several Olympic athletes and Olympic hopefuls presented a dazzling aerial ski-jumping exhibition from various ski jumps into a pool of water. Reaching altitudes of up to 50 feet above the water, the athletes demonstrated the skills, training, dedication and commitment they have had to make to achieve world-class excellence in their sport. Adding to the excitement was the fact that the show was presented at the training facility they use to hone those skills for Olympic level competition. It was an electrifying display of talent and skill for everyone present.

An essential element of the conference was the Business Partners Exhibit Hall. Thirty-eight business partners joined us for the conference and demonstrated new products, acquainted us with their services, and made presentations to keep us current on events in our industry. We truly owe a debt of gratitude to our business partners who contribute in such a meaningful way to the success of the RMA annual meetings.

2008-2009 RMA Officers

President: Kevin Hansen, Weber State University; President-Elect: John P. Morris, University of Colorado at Boulder; Secretary/Treasurer: Erik van de Boogaard, Adams State College; Newsletter Editor: Joseph Metzger, Arizona State University; APPA Senior Representative: Eakle Barfield, Montana State University – Billings; APPA Junior Representative: Mary Vosevich, University of New Mexico; Awards and Recognition Committee Chair: Jeff Butler, Montana State University – Bozeman; Membership Committee Chair: Viron Lynch, Weber State University; Information and Research Committee Chair: Greg Wiens, Athabasca University; Professional Affairs Committee Chair: Dave Button, University of Regina; Professional Development Committee Chair: Shawna Rowley, Weber State University; Annual Meeting Coordinator: Wayne White, Utah State University; Historian: Mark Shively, University of Wyoming



John Malmrose SRAPPA 2008 Conference Host

he Medical University of South Carolina, MUSC, hosted the 2008 SRAPPA conference in Charleston, South Carolina, October 25-28, 2008. Conference goals were for attendees to make new contacts and friends, learn something new, and have fun. The Conference Theme was "The Diverse Work Place." There were seven hours dedicated to interaction among attendees and exhibitors, and nine hours dedicated to educational sessions with three concurrent sessions during each of those nine hours.



A reception and dinner were held on the Aircraft Carrier USS Yorktown.

Social events included: A golf tournament at a course fronting the Charelston Harbor. A traditional low country meal at the American LaFrance Fire Museum, a wonderful display of fully restored historic fire engines and associated equipment. Campus tours of MUSC and Citadel, including a bagpipe performance at Citadel. A wonderful reception and dinner on the aircraft carrier USS Yorktown over-looking the Charleston Harbor was followed by music and dancing. The annual banquet was well attended, the host

committee was recognized for a great job, officers for the new year were sworn in, the gavel was passed, Embry Riddle gave a preview of the 2009 conference to be held in Daytona Beach October 22- 28, and the conference grand prize, a 2008 Smart Car, was awarded by drawing to Dan Wolfe, University of Alabama.

Special plenary speakers were Neal Petersen, an around-the-world-alone sailor born in Cape Town South Africa, who inspired us with this life story of over-

SRAPPA

REGIONAL REPORTS

coming adversity by engaging barriers as opportunities, and the Honorable Senator Glenn McConnell who gave an impressive and entertaining presentation about the history, recovery, and restoration of the Confederate Submarine H. L. Hunley.

Special companion events included: Wares from selected representatives of the Charleston Market. A story teller who told stories in both Gulla and English just outside the exhibit hall. Two Shag dance lessons in preparation for the Tuesday night banquet. Breakfast with NY Times Best Selling Author, Mary Alice Monroe. Attendance at the keynote address. And a tour of historic Charleston with lunch at Magnolias, a top-notch Charleston restaurant.

The conference started out great and got better as the week went on. At the

banquet, the host committee began to relax, the Rick Strickland Band began playing beach music, and folks flooded the dance floor to try out their newly acquired Shagging skills. Servers began taking up tables while diehards continued to dance, and the band played on.

2008-2009 SRAPPA Officers:

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2009 Regional Conference 🔘 🔵

The 2009 SRAPPA regional conference will take place October 24-27, 2009 in Daytona Beach, FL.

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Facilities — The One Constant Amidst a Sea of Change

By E. Lander Medlin

The worsening economy, the unraveling financial system, and the increasing concern about jobs, all paint a troubling picture for the future. The free-fall of the stock market has weakened institutional investment portfolios and the lack of consumer spending has dramatically impacted state sales tax revenues. Skyrocketing prices for goods and services have combined with already high tuition costs to limit the number of options for higher education institutions' budgets. Clearly, the educational system is no more immune to this growing global economic crisis than any other industry sector. Add global competitiveness and global warming and it looks as though CHANGE is the only CONSTANT . . . or is it?

Arguably, your facilities - the grounds and buildings; the sense of place, identity, and personality they create and the image they project - represent one real constant amidst this sea of change! Actually, your facilities can be considered a stabilizing force by maintaining a stable, safe, and stimulating environment so students can learn, teachers can teach, and researchers can innovate. Frankly, given the crises at hand (and they will be long-term), your institutions represent one of the major ways out. Why? The young people that set foot on your campuses and walk through your doors are the key to getting us out of this mess long term. They are our hope for the future!

Thomas Friedman, author of the book The World is Flat and most recently Flat, Hot, and Crowded, Pulitzer Prize winning columnist for the New York Times and keynote speaker at our 2006 joint conference with NACUBO and SCUP, stressed that education and green energy is the path to global leadership and being globally competitive. Recently on CNN, Friedman said more specifically, "Our thinking must move from drill baby drill to invent baby invent!" Our institutions represent a clear pathway to invention and innovation, just as they did during the years following Sputnik. However, the same old thinking is not going to work. It's like the definition of insanity: "Keep doing what you're doing and expect different results."

Given this global economic crisis, education is critical, requiring a rich, stimulating environment so our best and brightest can focus on creative and innovative ways to solve our most vexing problems. Archibald MacLeish said: "The future is won by those creating the future, not by

IRONICALLY, THERE IS A DEFICIT POTENTIALLY MORE DAMAGING TO OUR NATION'S LONG TERM WELL-BEING THAT PEOPLE EITHER DO NOT RECOGNIZE OR CHOOSE TO IGNORE – AN "EDUCATION DEFICIT!"

those trying to maintain the status quo." And, Hamel and Valiksngas said: "Institutions falter when they invest too much in 'what is' and too little in 'what could be'."

With certainty this won't be easy as the picture isn't pretty right now. But con-

sider the facts at hand...if you ask anyone about the U.S. trade deficit, you will hear words of concern. Ask anyone about the budget deficit and you will hear words of outright alarm. Ask anyone about our current financial deficit and you will hear words of outrage. Ironically, there is a deficit potentially more damaging to our nation's long term well-being that people either do not recognize or choose to ignore – an "EDUCATION DEFICIT!" Consider these supporting statistics:

- If you randomly select 100 eighth graders of today, only 18 will graduate college. What will the other 82 do in a world of knowledge workers requiring a degree to achieve middle class status?
- The United States ranks 5th amongst industrialized nations in high school completion rates.
- The United States ranks 7th amongst industrialized nations in college graduation rates.

And, far more compelling and telling. . .

- The United States produces onequarter (with the number years ago closer to 90%) of science, engineering, mathematics graduates (the tech-driven fields) in the world.
- Yet, we need a skilled, creative, innovative workforce. This situation threatens our global competitiveness. The "education deficit" is real. For sure, higher education is in a pivotal position to impact
 0 our nation and our future as an economic power. This has been demonstrated throughout our long history.
 - The Morrill Land-Grant Acts of the 19th century were established to educate the general populous.
- The G.I. Bill of the 20th century was established to educate more individuals to effectively enter the workforce.
- Yet, in the 21st century, this knowledgebased, global, competitive economy

requires record numbers of collegeeducated workers.

Indeed, we are the fuel for the world's economic engine. And, let's face it, the world's growth industries will follow this labor pool. Will we be ready?

The daunting challenge for higher education is that we must draw from the presently underprepared, underserved, minority, and low-income sectors of the population to create this labor pool. Yet, higher education's fundamental task is to get more people educated! An equally daunting challenge for educational facilities professionals is that we must deliver this labor pool amidst a competitive, high-tech, economically stressed, environmentally taxed climate. Educational facilities professionals' fundamental task is not only to get more skilled labor hired and trained (if we have the budgets to do so), but most importantly, we must maintain a stable, safe, and stimulating environment so students can learn, teachers can teach, and researchers can innovate. We must step up to this challenge. We cannot shrink from it - for the sake of our children and grandchildren, our nation and its democracy, our entire way of life.

It is critically important for educational facilities professionals to understand this situation more fully and these facts more clearly to ensure there is an increased awareness of what is on the minds of your senior institutional officers during these tough times. This knowledge puts you in the catbird seat given the actions you need to take and the decisions you need to make. You're not as invisible as you think you are. This is not as impossible a task as it may appear. Higher education needs your best thinking. Higher education needs your best efforts. Higher education needs your entrepreneurial spirit. I know you are up to the task.

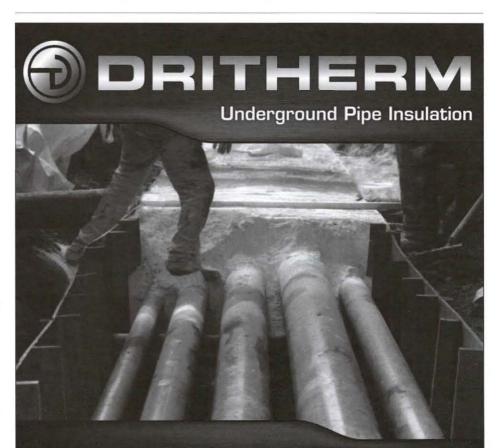
APPA can assist during these tough times with its rich network of colleagues, organizational evaluation services, comparative institutional benchmarking and performance indicators, core services staffing guidelines, and professional development/ training programs all targeted to improve organizational and individual efficiency and effectiveness. What has been so great about this association, our educational system, and the country overall is our collaborative nature. It is one that allows the free flow of ideas and information that, in turn, stimulates innovation, invention, and creativity. Although . . .

- The challenges are many;
- The stakes are high;

- The call for leadership is clear;
- We must do our part.

As a 17^{th} century Spanish philosopher once said: "If not us, then who? If not now, then when?" \bigcirc

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



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APPA's Virtual Connections

By Derrick Johnson and Leslie Young

APPA seeks to promote dialogue between our members as well as those interested in facilities outside of our membership. APPA offers a multitude of information, networking opportunities and programs to its members. However, it is membership that enables these elements to develop and thrive. Member experiences play a critical role in elevating APPA to great heights in the educational facilities profession.

One of our newest efforts has been to expand APPA's internet presence by engaging in online social networks and establishing a virtual connection community. To this

acebook is a social network that unites you with those who work, study, and live around you. This online community fosters communication between friends and coworkers. You are able to upload an unlimited number of photos, share links and videos, and much more. Facebook has more than 100 million active users; over twentyfour million photos are uploaded daily, and about 55,000 regional, employment, collegiate, and high school networks. Anyone with a valid e-mail address may join Facebook at http://www.facebook. com. Once you are part of this online community, spread the word to fellow professionals and students.

By engaging students not just in Facilities Management Programs, but all those interested in educational facilities, we will strengthen the profession, thus elevating the facilities professional. Facebook serves as the foundation of this initiative to reach out and engage students and professionals. APPA currently has two faces on Facebook: The APPA Group and The APPA Fan Page. The APPA Group serves as a

resource for professional development, informational materials and opportunities for students and professionals to contribute ideas and suggestions to APPA. Members have an opportunity to engage in discussions with fellow members through our discussion board, post links, view upcoming events, and see videos driven by field related topics. The APPA Fan Page is more interactive, and where we will host contests, polls, and other applications. The Fan Page offers an entertaining perspective to the field of facilities and campus life.

facebook

Linked in

APPA FACEBOOK CONTEST

Our first effort to engage students was through the Show APPA Your Campus Colors contest on Facebook. We reached out to students and encouraged campus participation in this contest. What better way to display buildings, architecture, stadiums/arenas, and landscape than through pictures? Students posted pictures in one of four categories on the APPA Fan Page and, after the final pictures were selected, all fans of APPA's Fan Page were permitted to vote

end, we have a new presence on Facebook.com, Linkedin.com, and Wikipedia.com.

It is our mission to engage and build a bridge between experienced professionals and rising facilities professionals by increasing membership, professional development, and virtual visibility and participation. And, in line with our seven key strategies, we are also reaching out to these online communities to help us achieve our desired outcomes of competency, collaboration, and credibility.

> for the best picture in each category. This contest was limited to full- and part-time college students only. Winners appear on page 6 of this issue of *Facilities Manager* and also on the APPA website.

LINKEDIN

We have formed another profile online through the business oriented social networking site called LinkedIn. Become a member at http://www. linkedin.com. The purpose of this site is to assist users to develop and maintain a directory of official business contacts. Once you are a member, you can create a profile that summarizes your professional accomplishments. Members may search through over 30 million registered users and organizations to find colleagues, businesses, or opportunities within one of the 150 industries represented. Employers are also able to provide a list of vacant jobs and search for potential candidates.

WIKIPEDIA

It is an ongoing mission of APPA to continue exposing the field of educa-

tional facilities management, answer directly related questions, and provide insight into the association. The next virtual presence of the organization will be on Wikipedia (*http://www.wikipedia. com*). This is a free multilingual online encyclopedia that is referenced often because of its connection with Google. Currently, there is no definition or description of APPA included in Wikipedia. Adding information about APPA will expand our audience and address our core visions of competency, collaboration, and credibility.

STUDENTS! THE FUTURE OF OUR WORLD

APPA has made its student membership completely FREE to provide more opportunities for students! Now full-time students studying facilities management or any related field at a degree-granting college or university will receive the electronic version of Facilities Manager magazine, Inside APPA (e-newsletter), have free access to Job Express and the APPA Resume Bank, participate in specifically designed contests, network with other students and professionals, and get discounts on professional development programs and publications. Students simply need to visit the student membership page http://appa.org/membership/student.cfm, download, complete, and return the student application. Please contact Santianna Stewart, membership and outreach manager, at santianna@appa.org for more information on student membership, or any membership APPA has to offer.

GOALS AND BENEFITS

APPA's goal is to increase our presence on the web so we can implement and execute our strategies and targeted outcomes. Ideas, opinions, and best practices should not be limited just to membership but expanded to the greater community that is interested or works within educational facilities. Sharing information is a global experience and APPA will greatly benefit from increased communication about the organization and community participation. It is also a way to engage young professionals in the areas in which they are accustomed while concurrently encouraging those interested in facilities to communicate with each other.

Visit APPA's Student Membership Page, http://appa.org/membership/student.cfm, or contact Derrick Johnson, professional development & certification manager at *derrick@appa.org*, for more information about APPA's virtual connections. This is his first article for *Facilities Manager*. Leslie Young is APPA's IT and Web Services manager; she can be reached at *leslie@appa.org*. (5)

Solving Student Housing Demands...

...In 120 Days Completion Time from Start to Finish

To cope with the growth in student enrollment, Ferrum College solves student housing demands with "System Built Technologies". Mod-U-Kraf, a member of the nations largest systems built provider, worked with the Ferrum staff to design and build a 3-story, brick dorm to house 117 students. Mod-U-Kraf successfully delivered this remarkable building in just 120 DAYS! Mod-U-Kraf completes over 60% of the construction process by utilizing modular sections built in their production facility. This building would not have been possible with out Mod-U-Kraf's system built technology.



Mod-U-Kraf, in affiliation with All American Building Systems, covers 35 states for product delivery. Let us solve your needs in student housing!

Contact John Fields for information on student housing needs for your school.

Phone: 1 888-MOD-KRAF or 540-483-0291 E-mail: homes@mod-u-kraf.com www.mod-u-kraf.com "We were able to build student housing to accommodate 117 additional students this fall. The building was completed on time and on budget. We are very pleased with the outcome." - Dr. Jennifer L. Braaten, *President of Ferrum College*

0 0



Planning



rom natural disasters to criminal violence, facilities officers are often called on to address campus safety and security issues beyond their usual responsibilities. Their experiences in coping with events largely unanticipated have produced a catalogue of lessons learned that can help them and their peers at other institutions who might face the same types of situations in the future.

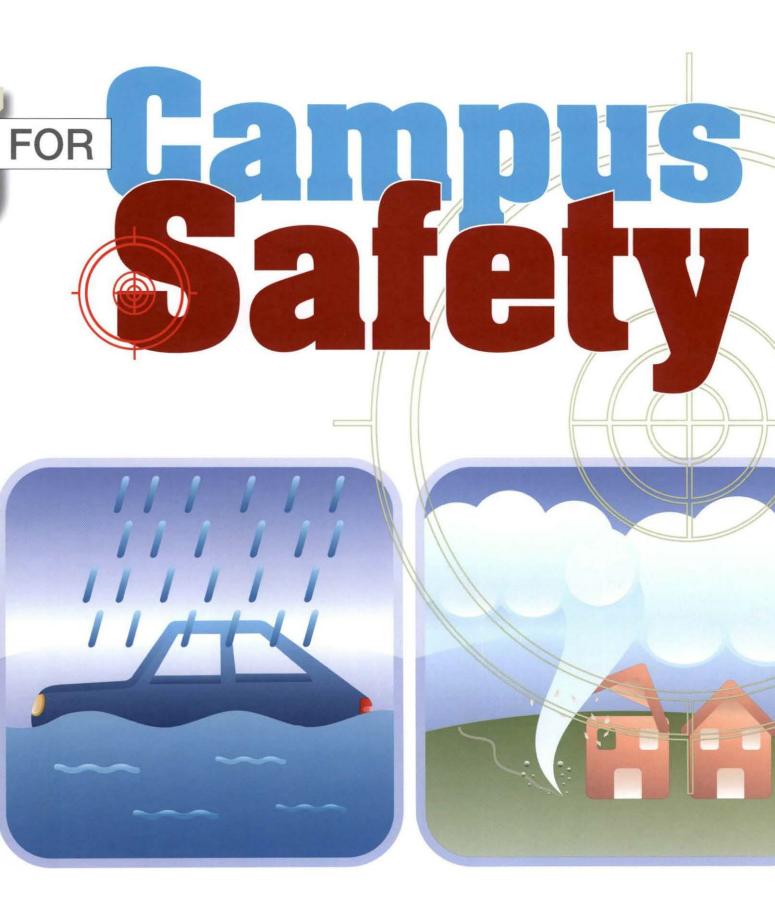
Many have to do with bad weather conditions that develop with little if any advance warning.

At Xavier University of Louisiana in New Orleans, in a region familiar with damaging hurricanes and flooding, facilities managers knew Hurricane Katrina was headed their way in August 2005 and "we did the normal things to prepare for it," said Marion Bracy, vice president of facilities planning and management. That meant "placing things high on desks, moving things away from windows, putting sandbags out and shutting down the Central Plant." But Katrina was a particularly devastating storm, the costliest and one of the five deadliest ever in the United States. "A lot of the things we did went by the wayside. We had a tremendous amount of water and placing sandbags by the doors just blocked the doors. It didn't stop the water from coming in right over the sandbags," Bracy reported. For more than two weeks, floodwaters covered the entire campus with four feet of water. The Central Plant was totally destroyed.

When the facilities staff returned to campus three weeks after Katrina struck, they "pushed out all the water" but faced other issues. "We didn't have any air going into the buildings. We couldn't introduce any electrical to the

buildings," said Bracy. Overall, Katrina caused about \$90 million in physical damage to Xavier and the university didn't reopen until January 2006.

BY ALAN DESSOFF



In April 2006, a group of senior university executives, including Bracy, was created to prepare a new Hurricane Emergency Plan for the university that became effective three months later. Bracy's department also developed its own plan and has taken a number of steps since Katrina to improve the security and safety of campus facilities.

"We've never been hit as hard as we were by Katrina," Bracy said. "It challenged us to think differently about a number of things we were doing that we just took for granted. We have learned a lot since then."

Some of it is "simple common sense," he said, like gassing up the trucks and moving university-owned vehicles and equipment to higher ground if a damaging hurricane seems likely.

In more complicated moves, the facilities staff has raised all electrical transformers on campus at least three feet above ground level. "That would never have happened before Katrina," Bracy said. "Most of what we're doing is trying to get equipment off the first floor of buildings." In new construction, "absolutely no laboratories" that are difficult and expensive to replace are put on the first floor.

Other steps include moving computers away from walls and being sure to shut computers down completely when hurricanes are threatened because "when the power comes back up there could be a surge that could create a great deal of damage," Bracy said. In addition, all buildings are getting lightning protection.

Some protective planning required special considerations. In an historic old building on campus, Bracy would like to install double-plated windows to help keep out the water. But "they don't want us to replace the existing windows for fear it will tamper with the historic integrity of the building," he said. "So we're talking about putting in a separate second window—a backup window; two windows in the same seal."



FLOODING IN IOWA

Sometimes even the best planning turns out to be not good enough. The University of Iowa had a flood emergency response plan based on experiences from a flood in 1993, the worst the

institution had experienced until then. The new plan was designed to cover the worst flood that facilities officers could imagine would happen in the next 100 years.

When a flood that ultimately would devastate more than 80 counties in the state

began last summer, "we went into red alert and executed our plan," said Don Guckert, associate vice president and director of the facilities services group at Iowa. That meant building sandbag dikes around the campus at sites and elevations specified in the plan.

Then problems developed. "If we had only experienced a 100-year flood, which would have been no small matter in itself, we would have been successful. But when it became a 500-year flood, it overtook us," said Guckert.

As the water kept rising, "we got to the point where we couldn't build sandbag dikes high enough because we couldn't find enough sandbags. So we had to throw away the plan and go into a different mode," Guckert said. "We reengineered the dikes and put in jersey barriers about three feet high and wrapped them in plastic and anchored them with sandbags."

But they didn't work, either, as the water level rose even higher. "So we had to take those out and use hesco barriers" four-foot-tall baskets filled with stone and lined with plastic, said Guckert.

> Meanwhile, the 100-year flood response plan did not contain an "evacuation trigger" and "it was left to a judgment call of the facilities organization, and we made a good call," Guckert said. The facilities staff moved an

> > art collection that alone was worth "more than everything that was damaged" to a secure location. Then it removed books from the library. "We started to evacuate before we knew we really had to and we saved millions of dollars in assets," he said.

As he began to attack the flood following the 100-year



plan, Guckert thought his 670-person facilities organization would be able to do the job alone. "We were well prepared," he said. But as the scope of the disaster grew and "got beyond our ability to respond," he called on contractors and "an enormous volunteer turnout" for assistance.

About a sixth of the 17 million-square-foot campus was lost to the flood, which peaked in mid-June. By mid-August, the facilities staff was able to reopen three classroom buildings, a library, and a residence hall. But campus cleanup, re-

pairs, and restoration were continuing late in the year.



EMBRY-RIDDLE TORNADO

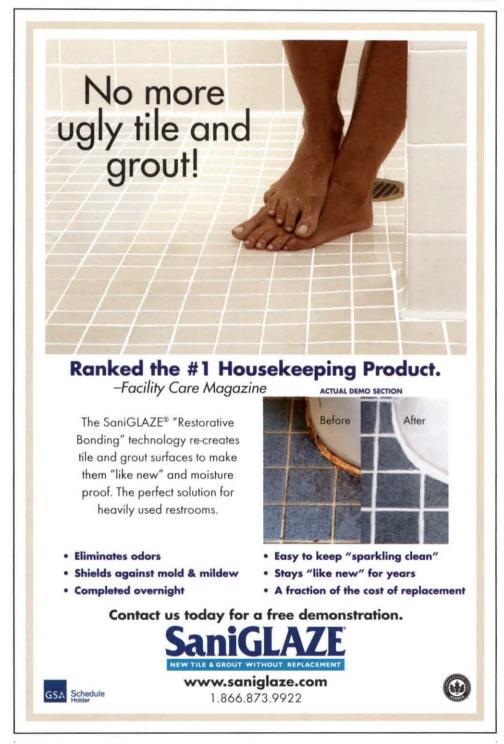
Embry-Riddle Aeronautical University in Daytona Beach, Florida was largely

deserted on Christmas Day 2006 when two tornadoes with winds of about 120 mph tore through the area, cutting a 100-foot-wide swath through the center of the campus. Although there were no injuries, the maintenance hangar was destroyed and there was substantial damage to several other structures, including the administration building and Student Center.

Daniel F. Young, the institution's director of facilities management, was in Ohio for the holidays but quickly learned of the disaster. "I had a phone call from one of the security guards who was hunkered down in a restroom," he recounted. "I wondered if it was a prank call and he said, 'For sure, Dan, this has happened. You'd better get down here." Within a half hour, Young said, he was on his way back to Florida.

At 7:00 the next morning, Young and his staff met to evaluate what they faced. "We started to look at cleanup first, and whether or not we had safety issues, what areas we could get back into, and where we needed outside help. We were pretty much in position to start engineering evaluations," he said. "Meanwhile, our grounds and maintenance crew had issues they had to take care of—electrical issues, HVAC issues, checking equipment that was damaged. We tried to get back to the mechanical contractors who had installed it to get replacements."

On the third day, said Young, "We had our financial people on site," checking on insurance coverage for equipment replacements and ensuring that they were "one-for-one" replacements.



By the end of the day, "we had the campus pretty well cleaned up and had identified what needed to be replaced and what didn't," Young said. His 50-person facilities team worked 12-15 hour days "to make sure we got everything back together" and he also brought in a roofing contractor and a general contractor.



The 2006 tornadoes were not the first natural disasters to strike Embry-Riddle. Three hur-

ricanes in five weeks in 2004 destroyed building extensions, canopies, "things like that, but nothing major," said Young.

"We're fortunate because our main product here is flight and we have a weather station with meteorologists who are here during the academic periods, so we have a good idea of what the weather looks like," Young said.

But since the 2006 tornadoes, "we have done a structural evaluation of all our buildings" to determine the ones that "can be considered ultimately safe," Young stated. Also now, after a structural engineer completes the initial design for a new building, "we have a different structural engineer come in and look at developing a safety cell within that building."

CALIFORNIA EARTHQUAKES

When Southern California officials organized a mock earthquake drill last November involving 5 million people, participants included facilities staff members from California State University, Northridge. "It was a short 'duck, cover, and hold on' exercise for most people. It was more of a reminder to the public at large that they should be prepared and understand that it could happen

again," said Tom Brown, executive director of facilities management at the institution.

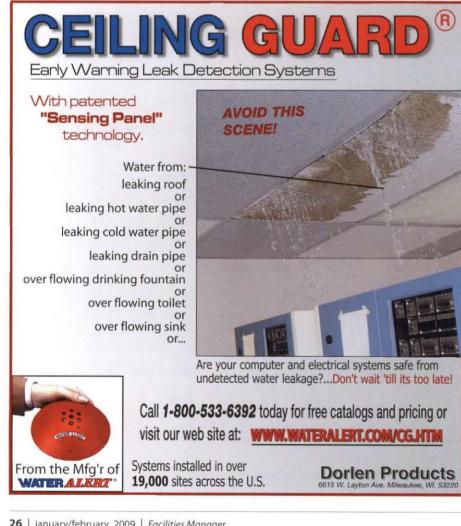
"It" was the earthquake with a magnitude of 6.7 that rocked the Los Angeles area in 1994, with its epicenter a little more than a mile from Cal State Northridge. Although the region is vulnerable to earthquakes and has experienced many shakes and shocks since then, they "pale in comparison" to the 1994 event that required the institution to spend about \$450 million over ten years in recovery, including major building repairs and renovations, Brown said.

The mock regional drill in November 2007 notwithstanding, Cal State Northridge now conducts its own more extensive drills annually when "we run through major scenarios," said Brown.

> The 1994 disaster also taught lessons in building design, construction, and maintenance that are being followed today. Brown cites steel moment frame buildings that initially were designed "to move and sway with the earthquake without catastrophic failure" but did not perform that way in 1994. Experts who examined structural damages on the Cal State Northridge campus found that steel moment frame buildings "did not move and flex as much as they thought they would and there actually were structural member failures."

> New designs include a determined "failure point," he said. "You'll see what looks like a dog bone in an I-beam. That's where you want it to fail if the stresses go beyond the movement and flex in a building."

Studies after the 1994 earthquake also revealed electrical problems with highvoltage power distribution feeders. "The ground movement caused failures as a result of underground cables not having enough flex in them," Brown explained. "Now we ensure that whenever we pull cables, particularly our high-voltage infrastructure cables, from underground conduits, we put in a loop so they will never be stressing the connectors and failing."



CAMPUS SHOOTINGS IN ARKANSAS

Sometimes, events caused by humans, not the weather, require emergency responses. At the University of Central Ar-



kansas in Conway, Arkansas, the facilities team is part of a campus emergency preparedness plan that outlines, among other things, "who is going to be contacted, how they are going to be contacted, and what role they will play," said Larry Lawrence, director of physical plant.

His team was contacted and had a role to play in a shooting incident in October 2008 that claimed the lives of two students. But before they could respond, they waited until campus and local police had secured the safety of the campus. "We don't want to send our people into a police setting where there is gunfire until we know there is an allclear," said Lawrence.

Once they received the all-clear, the facilities staff set up barricades to help university police block off certain streets and lock-down the campus. They also helped direct the media to a designated location. "Our grounds superintendent was there and he spoke with university police about where to put the

media, directing them to an area and holding them there," Lawrence said.

Further, he added, "There were some students in the library and they had concerns about walking back to their residence hall, so we provided a vehicle and driver who shuttled them back there."

There was no damage to campus buildings and university police were in charge of the response to the shootings. "Our role was small, a supporting role. We asked the police, 'What can we do to help you?'" Lawrence said.

Facilities officers who have had to deal with harrowing unanticipated events agree that a key lesson learned from their experiences is to train and prepare staff members to respond to just about anything.

LESSONS LEARNED

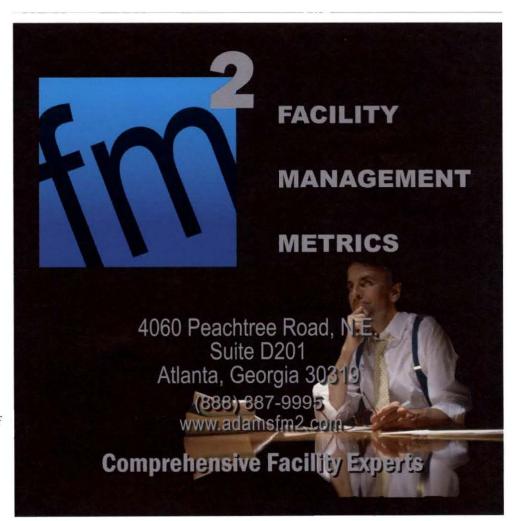
"I'm a firm believer that the most important preparation for your response to emergencies is on your staff side," said Brown. "It's the planning, the exercises, the training. Ongoing staff development is critical to provide the resources you will need immediately."

Facilities officers who have had to deal with harrowing unanticipated events agree that a key lesson learned from their experiences is to train and prepare staff members to respond to just about anything.

Young credits the "professionalism" of his facilities team in coping with the disasters that struck his campus, but says it took the experience of early hurricanes to "get them focused." With many maintenance people, he explained, "when you give them a scenario of the possibilities, they always take the positive side and say 'it hasn't happened here in 30 years, it won't happen again.' But after the second hurricane, I had their attention, and after that, when they had to respond, they were there."

Similarly, at Iowa, the experience of "many on our staff who have been around a long time" proved to be both an asset and a liability, said Guckert. Facilities employees who experienced the 1993 flood were an asset because "they had been through this drill before and knew where the points of vulnerability were,"

(continued on page 52)



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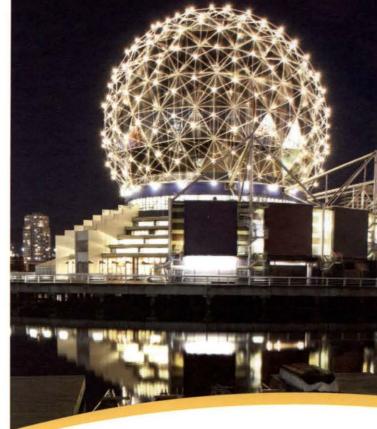
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College and university campuses may be safer environments than the "real world" around them, but recent years have made it clear that they are not immune to frightening and dangerous events, either natural or manmade. Today's campuses and their facilities professionals have to be prepared to respond to crises caused by both nature (think of hurricanes Katrina and Eric, and the floods in Iowa) and people (such as the shooting incidents at Virginia Tech, Northern Illinois University, and several other schools). Rather than being reactive or relying on traditional risk management and crisis-planning models, APPA and eight other higher education associations are working together to create an innovative, proactive approach to this important concern-and facilities professionals are essential to the process.

PARTICIPATES IN INNOVATIVE EFFORT TO ENHANCE CAMPUS SAFETY AND SECURITY

3

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9 Associations collaborate on proactive approach; facilities called *KEY* to process

BY RUTH E. THALER-CARTER





AN ENCOMPASSING APPROACH

The National Safety and Security Project is a five-stage effort, launched and led by the National Association of College and University Business Officers (NACUBO) under James A. Hvatt, NACUBO project director and principal investigator, and now senior vice president for business and finance and chief financial officer at the University of South Florida in Tampa. The other participating associations are APPA and the Association of Governing Boards (AGB), University Risk Management and Insurance Association (URMIA), American College Personnel Association (ACPA), International Association of Campus Law Enforcement (IACLEA), National Association of College and University Attorneys (NACUA), EDUCAUSE, and Campus Safety Health and Environmental Management Association (CSHEMA).

"Institutions are subject to a wide variety of emergencies, both natural and man-made," said Hyatt. "When a crisis occurs, everyone pulls together, but the idea here was that we should do so *before* an emergency occurs. We're taking an 'all-risks' approach."

What makes the Safety and Security Project unique, Hyatt said, is that "nine associations have come together and said this is a concern to all of us that we should address together."

Hyatt, who was at Virginia Tech at the time of the campus shootings there in April 2007, designed the process. The first three steps involved literature research on the current state of affairs in the safety and security arena; a survey of NACUBO members that has received 400 responses to date; and site visits to a broad range of campusesboth two- and four-year institutions in Arizona, Maryland, New York, Oklahoma, and Pennsylvania to date-to create case studies. The remaining steps will include a symposium on findings by mid-2009 and producing a white paper with the results of all

project activities, which may include an assessment tool that institutions can use to improve their systems. NA-CUBO started the ball rolling and the Lilly Endowment has provided support for the project's site visits.

"This has been a masterful process," said APPA President Bill Elvey, APPA's representative to the project, who is currently director for facilities management at the University of Texas at Dallas and also was working at Virginia Tech at the time of the shootings there. "This project is allencompassing, involving university presidents, provosts, chief academic officers-the whole spectrum of university officials collectively who are all responsible for the safety and security of campuses. We're looking at New York state legislature ideas for course credit in the aftermath of disaster, and at mental health issues and threat assessment from a prevention standpoint."

Elvey reinforced the recognition of the Virginia Tech events as an impetus for the project. "The Virginia Tech tragedy, when viewed in the context of events both before and since that time, provided a unique opportunity for circumspection and investigation into how higher education can better position itself with respect to its safety and security programs," he said. "There is no doubt that a university's record of dealing with safety and security is a decisionmaking factor by prospective students and their parents who are shopping for a college or university to attend. In many cases, even a perception that a university may not be focused on these issues can be a problem. The idea behind this project is to provide a timely review of the issues surrounding safety and security on college campuses and to share the results of the research, survey, site visits, and a national symposium on the subject with the at-large higher education community."

As a member of the project Steering Committee, Elvey has reached out to several other APPA member facilities professionals by asking them to participate in several site survey visits and help prepare business case studies on the topic. They include Harvey Chace of the University of New Mexico, who visited Arizona State University; Jeff Foster, University of Rochester, who visited Cornell University; Terry Ruprecht, University of Illinois/Urbana-Champaign, who visited Purdue University; and Glenn Smith, Bryn Mawr College, who visited Tulsa Community College.

"The country as a whole is aware of the precipitating factors for this project, but there are other, less-public concerns," including a pandemic, according to Anne Gross, NACUBO's vice president for regulatory affairs and parent of a Virginia Tech student herself. "We're looking at the whole area of risk management and mitigation. It's increasingly at the top of mind on all campuses," she said. "We have to plan for an emergency, not respond differently to all emergencies."

Colleges are still "very safe places compared to crime statistics for the country as a whole, but that doesn't mean they're without problems," Gross noted, "Students are young—we're dealing with a population that feels invulnerable. Schools clearly need to be prepared."

THE ROLE OF FACILITIES PROFESSIONALS

One rewarding finding of the National Safety and Security Project is its acknowledgment of the importance of facilities and physical plant professionals to ensuring campus safety. "Facilities people are absolutely critical, not only in dealing with a crisis but as a key to getting things back into operation," said Hyatt. "Before an emergency, facilities managers should be part of the emergency-preparedness team. In project site visits, we are seeing facilities as part of

that process. Facilities are also essential because they are involved in new build-ings and in renovations."

Said Elvey, "Facilities management is just one stakeholder on a college campus when it comes to safety and security. This is why we have partnered with NACUBO and eight other influential higher education associations to ensure that as many perspectives as possible are obtained during the research project. As representatives of the higher education facilities manager profession, we want to ensure that our roles and responsibilities are both understood and appreciated across the board when it comes to campus safety and security issues." Gross sees the role of facilities management as essential to the process of protecting campuses against risk and danger. "If we can engineer around risks, that's better than relying on the human factor," she said. "Schools on the West Coast have been strengthening buildings against earthquakes. Others are installing equipment to warn people of danger, or installing high-tech locks to protect people. People in facilities management are all over their campuses, so they're a good set of eyes for danger or risks, and for noticing anything suspicious."

Elvey said that one obvious area for facilities involvement is in access controls. "On one level, that could be buildings and locks, but even that has evolved to a higher level of technology, such as biometrics and electronic card access; I've got a system for a three-story office building that uses a wireless key fob," he noted.

Teamwork that includes facilities is also essential to a safe and secure campus, Gross noted. "The only way schools can succeed is if everybody comes together as a team that functions across the campus," she said. "The impetus (for better teamwork) can come from anywhere in the campus community, but we need to be prepared. We need to spend time and money on being prepared."

In Elvey's eyes, that means enhancing the role of the profession. "From a facilities standpoint, we need to ensure that we provide a strong supporting role to the university administration in the area of emergency management planning, response, and recovery," he said. "By being as proactive as possible, we should not only be able to plan for all threats that might occur on our campuses, but also be better trained in responding in case should something happen."

The reality is that "we play a big role on the response and recovery side of the equation during and after an emergency," Elvey said. "I was at Virginia Tech when that tragedy occurred, and facilities management played a major role in

The Participating Associations

American College Personnel Association (ACPA) www.myacpa.org APPA www.appa.org Association of Governing Boards (AGB) www.agb.org Campus Safety Health and Environmental Management Association (CSHEMA) www.cshema.org EDUCAUSE www.educause.edu International Association of Campus Law Enforcement (IACLEA) www.iaclea.org National Association of College and University Attorneys (NACUA) www.nacua.org National Association of College and University Business Officers (NACUBO) www.nacubo.org. University Risk Management and Insurance Association (URMIA) www.urmia.org/urmia.cfm recovery operations. We had to decontaminate and restore facilities so they could go back to being used as intended. We will always play that kind of role."

EARLY RESULTS

The project site visits were conducted in October and November 2008 and had not yet been completed at presstime for this issue of *Facilities Manager*. However, in those completed by presstime, Elvey said, "We are seeing a variety of approaches and frameworks that have been applied at different locations depending on a highly unique set of environments. In other words, one size doesn't fit all, when it comes to either the challenges or the opportunities to approach the rather complex topic of maintaining a highly safe and secure campus at all times."

The very diversity of facilities management responsibility can add to the challenge of enhancing safety and security on campus, Elvey noted. "We manage the portfolio of buildings and grounds; it could be different for everyone at each campus—there's no one cookie-cutter model. When I was at Virginia Tech, for instance, I was also responsible for parking and transportation functions," he said. "What we're finding out with our surveys and site visits is that every university is organized differently. Emergency response can be handled by the academic or the business side. In fact, that is one of the challenges – whether it's handled by facilities vs. emergency management per se, vs. the police/security department." At his campus, Elvey added, "We try to keep who has access to what on the police or security side—we make sure locks and doors operate properly, but we don't decide who gets the keys."

THE APPA ADVANTAGE

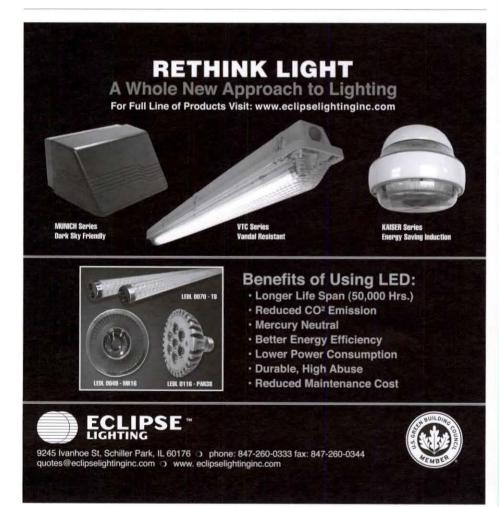
Just by being involved in their professional association, APPA members "should already be highly engaged team members at their institution in this area," said Elvey. "By being members of APPA, they have the opportunity to network to obtain information about success stories and best practices through a number of professional development programs, such as local, regional, national, and international conferences and meetings. APPA's discussion list is also a useful tool for sharing knowledge on the topic of safety and security."

FUTURE INVOLVEMENT

As the project moves into its final stages in the new year, Hyatt would like to see the participating associations make its results part of their annual reports, documentation processes, and more. "The amount of outreach we can do will be significant before another Eric, Katrina, Northern Illinois, or Virginia Tech occurs," he said—and that could make prevention possible and responses far more effective, should they be needed.

Hyatt also sees an important ongoing role for facilities professionals. "We absolutely want more involvement," he said. "That's why we're doing the site visits. Facilities needs to be engaged in the whole issue of emergency preparedness, and facilities people are vital to the team." He urged APPA members to "get engaged, review your institution's plan, and—more importantly—get involved in *creating* a plan." **(**

Ruth Thaler-Carter is a freelance writer/ editor based in Rochester, NY and a regular contributor to APPA publications. She can be reached through www.writerruth.com.



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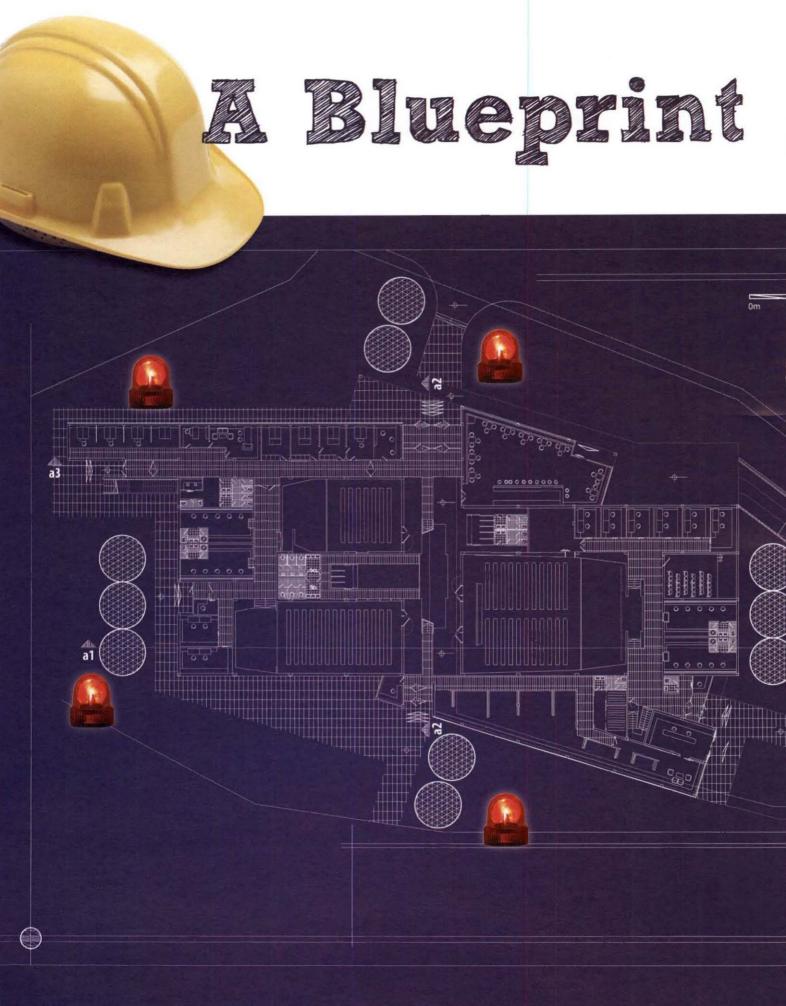


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Recommendations for Campus Safety by the International Association of Campus Law Enforcement Administrators

By the IACLEA Special Review Task Force

he impact of the rampage shootings at Virginia Tech on April 16, 2007 continues to be felt across the U.S. and the world. Clearly this incident, along with other active shooter incidents that have occurred since the Virginia Tech tragedy, has impacted our awareness of campus safety and security. A number of states, other governmental entities, and non-governmental organizations have convened groups to examine the lessons learned from the tragedy at Virginia Tech and other aspects of campus safety. We applaud these ongoing efforts and believe that the attention focused on this issue presents an opportunity to initiate a national dialogue to strengthen campus public safety and enhance the protection of the estimated 15 million students attending the U.S.'s 4,200 institutions of higher education.

In August 2007, in the wake of the Virginia Tech tragedy, the International Association of Campus Law Enforcement Administrators (IACLEA) sought to develop a set of recommendations for institutions of higher education through a public safety lens. While there are many recommendations that arise from these lessons learned for each of the disciplines that bring to bear expertise, IACLEA has identified 20 specific recommendations. They represent priorities for the betterment of campus safety and reinforce key goals and objectives in mitigating and responding to threats at institutions of higher education. They are not designed to be all inclusive, but do represent emerging best and promising practices which institutions should consider now and implement when possible.

IACLEA'S KEY RECOMMENDATIONS

Emergency Planning and Critical Incident Response

- All colleges and universities should conduct a threat and vulnerability assessment as part of the institutional risk management strategy. The assessment should consider the full spectrum of threats (i.e., natural, criminal, terrorist, accidental, etc.) for the campus. The results of this assessment should guide the institution's application of protective measures and emergency planning assumptions. The assessment will necessarily be unique given the specific characteristics of individual campuses.
- 2. Institutions should use an array of means and methods to disseminate information to the campus community during emergencies. A campus emergency mass notification system and plan must include multiple means of sharing information, including high-technology (i.e., mass notification system) and low-technology (flyers, loud speakers) solutions. Institutions selecting systems should ensure theirs meet these minimum criteria:
 - a. Multi-Point Communication: The service should enable the campus to notify the entire campus community via multiple channels. The system should be capable of



All colleges and universities should conduct a threat and vulnerability assessment as part of the institutional risk management strategy.

reaching its audience through multiple points of contact, such as voice messages, e-mail, and text messaging/SMS.

- b. Capacity: The system vendor should have sufficient, demonstrated capacity to deliver all messages quickly and reliably.
- c. Security and Redundancy: If the institution uses a third-party vendor, access to private student and employee data must be limited only to authorized personnel. The system must have redundant capabilities in all the power interconnects.
- **d. 24/7 Client Care:** A contract with a third-party vendor should include training, customer service, and technical support.



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- e. Experience: The vendor should have significant experience delivering calls at institutions of various sizes across the country.
- f. Assessment: The service should have reporting capabilities that allow the institution to monitor, manage, and measure the system's effectiveness.
 - Campus public safety officials as well as other appropriate administrators should have the authority and capability to send emergency messages from on/off campus and from anywhere around the world.
 - Campus administrators should consider the follow criteria before sending emergency messages: 1) the message should be timely; 2) the information must be accurate; and 3) the notice must be useful to the recipients. Recipients of emergency messages should be urged to inform others.
- Institutions should use the National Incident Management System (NIMS) as the framework to manage emergencies and should have a decision-making process and structure to facilitate interaction among institutional leadership, institutional resources, and local first responders.
- Institutions should develop succinct emergency response plans that allow for a coordinated, organized response to critical incidents while avoiding complexity and obfuscation. The

plan should comply with the National Incident Management System and the Incident Command System per Homeland Security Presidential Directive 5 (HSPD-5).

Ideally, such plans will specify levels of an emergency and the general responsibilities of the emergency response and policy groups at each level. Appendices may include incident action plans for specific critical incidents (i.e., snow storms, bomb threats, or violent crime). Institutions should conduct annual training for the emergency operations and policy group, and include campus service providers in addition to public safety first responders.

5. Universities and colleges should work with their local government partners to improve plans for mutual aid in all areas of emergency planning and critical incident response, including that of victim services. The IACLEA "Guide to Strengthening Communications between Campus Public Safety Departments and Federal-State-Local Emergency Response Agencies" contains model policies and practices for developing and nurturing these important relationships. The Guide is available on the IACLEA website at *http://www.iaclea.org/visitors/WMDCPT/cprc/aboutcprc.cfm*.

6. Institutions should consider providing First Responder or EMT training to a sufficient number of campus public safety officers to ensure there is the capacity on the campus to provide potential life-saving treatment to injured persons at the scene of a critical incident in the event that EMTs from outside agencies face delays or otherwise cannot get to the scene in a timely manner. First Responder training generally refers to a 40-hour course of training and the EMT course typically consists of 120 hours of training in providing pre-hospital care for medical emergencies.

Empowering and Resourcing the Campus Public Safety Function

7. The campus public safety executive must report directly to the senior operations officer with institutional decision-making authority. The campus public safety director or chief of police should be part of the emergency operations team developing emergency response and recovery plans. Additionally, the campus public safety executive should have direct access to the most senior decision makers during an emergency.

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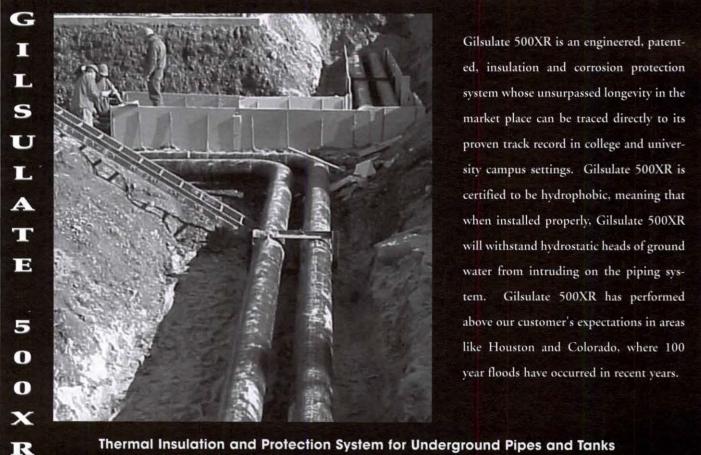
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- 8. Institutions should regularly review the physical security infrastructure, including locking mechanisms on all doors, to ensure optimal safety of faculty, staff, students, visitors, and guests.
- 9. The nature of the emergency should direct what and how campus authorities communicate with the campus and under what timeframe (see earlier recommendations on timely warning process.) Universities and colleges must comply with the Clery Act, which requires timely public warnings of imminent danger. Institutions must have a policy that describes their timely warning practice and in that policy, they should develop an individual definition of "timely" in relation to available technology, available communication systems, and nature of the crisis.
- 10. Interoperable communications is an absolute must for effective critical incident response. Interoperable communication systems allow two or more responding agencies, even those using disparate communications systems, to exchange information directly. With interoperability, onscene personnel can quickly access each other to coordinate needed rescue and emergency activities. The Public Safety Wireless Network program (a joint initiative of the U.S. departments of Justice and the Treasury) has identified the following as two important types of interoperability:

- a. Day-to-day interoperability covers routine public safety operations, such as a building fire that requires backup from a neighboring fire department, or when a vehicle chase crosses between towns.
- b. Mutual aid interoperability supports a joint and immediate response to catastrophic accidents, large-scale incidents, and natural disasters. It supports tactical communications in response to airplane crashes, bombings, forest fires, earthquakes, hurricanes, and similar events that occur without warning.
- 11. Each state should pass enabling legislation that allows their colleges and universities the choice to employ a sworn police agency in lieu of or in addition to non-sworn security professionals.
- 12. Campus public safety agencies should explore accreditation through the Commission on Accreditation for Law Enforcement Agencies (CALEA) and the International Association of Campus Law Enforcement Administrators (IACLEA).
- 13. If the institution employs a full-service, sworn law enforcement agency, then the officers should have access to a range of use of force options including lethal (firearms) and less-thanlethal (impact tools, chemical, and electronic control devices). In short, sworn officers should be armed. Campus public



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safety personnel who are provided any defensive weapon should be trained to the standards required for public-sector law enforcement personnel within the political subdivision.

Campus law enforcement or security personnel provided with weapons should meet the standards established for use of those weapons as determined by the state or province in which the community is located. Clear policy statements should be implemented establishing such weapons as defensive weapons. NOTE: IACLEA has a long-established position statement that supports this recommendation.

- 14. Campus public safety authorities must clearly understand their authority in addressing involuntary hospitalization procedures for members of the community they interact with who suffer from acute mental health disorders.
- 15. The complex nature of law enforcement demands knowledge, skill, training, and experience. Judgments frequently required are beyond the training, preparation, responsibility, or authority of private citizens. Personnel who do not have the necessary judgment resulting from the acquisition of this knowledge and skill acquired through law enforcement training should not be assigned to functions that may require them to question, detain, or restrain the movements of citizens.

Prevention and Education Programs to Address Campus Safety Risks

- 16. Institutions should implement a process whereby all members of the community upon application (admissions and employment) are asked whether or not they have been charged or convicted of a crime and all related details. Institutions should conduct criminal record checks for their students, faculty, and staff as appropriate.
- 17. Institutions of higher education should have a behavioral threat assessment team that includes representatives from law enforcement, human resources, student and academic affairs, legal counsel, and mental health functions. Specifically, campus public safety should be included on the team.
- 18. Institutions should employ a comprehensive program to end violence against women crimes on campus. These crimes include stalking, sexual assault, and relationship violence. In addition to self-defense for women, prevention training focused specifically on men and key campus constituencies should be required. These areas include Athletics, Student Affairs, Judicial Affairs, Academic Support, and Residential Life.

The institution should establish protocols and procedures that support a woman's decision not to participate in a criminal or judicial proceeding, but which allow the institution to take action against the accused independent of a criminal investigation. Campus public safety should be trained to conduct these investigations and inquiries.

19. Faculty, staff, and students should be trained on how to respond

to various emergencies and about the notification systems that will be used. This training should be delivered through a number of delivery options, such as in-person presentations (i.e., residential life programming; orientation sessions for students and employees); Internet-based delivery; and documents.

20. Campus public safety should develop collaborative, supportive relationships with victim advocacy services in order to respond directly and immediately to the needs of victims of crime.

CONCEALED CARRY OF FIREARMS ON CAMPUSES

IACLEA does not support the carry and concealment of weapons on a college campus, with the exception of sworn police officers in the conduct of their professional duties.

Security technology, such as automated card access systems, intrusion detection systems, and security cameras, can serve as force multipliers on a college or university campus.

IMPLEMENTATION OF SECURITY TECHNOLOGY

Security technology, such as automated card access systems, intrusion detection systems, and security cameras, can serve as force multipliers on a college or university campus. In fact, some systems, such as automated access control, have become the industry standard.

Campuses should continue to implement proven security technology in an attempt to enhance safety on campus. Some systems, such as security cameras, have proven valuable in specific circumstances and have not only increased the community's sense of security, but have also aided in the apprehension of criminals. As with any system, policy, or practice, IACLEA recommends that the campus evaluate existing literature and research to ensure there is ample evidence of the system's effectiveness prior to implementation. (5)

The IACLEA Special Review Task Force consisted of authors Raymond H. Thrower, convener, and Steven J. Healy, Michael Lynch, Gary J. Margolis, Dolores Stafford, and William Taylor. The complete document and more information can be found at *www.iaclea.org*.

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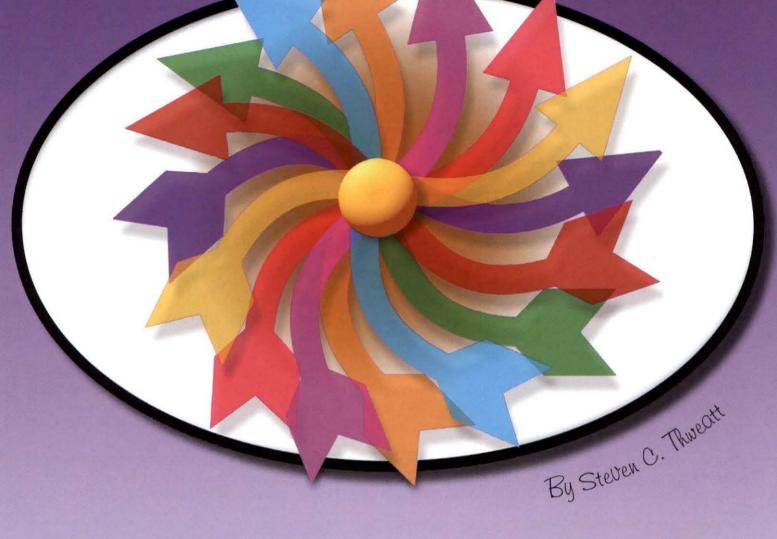
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The Price of PARALYSIS

ave you ever been stopped at a traffic light, deep in thought solving one of the world's most vexing problems, and when the light turns green, you remained fixated on your thoughts oblivious to your surroundings? We have all done that at some time, yet when someone reminds us to pay attention with a not-too-gentle blare of their horn, we get jolted into action and accelerate towards our destination . . . or do we? What if you decided to just stay at that light, not moving ahead, until you had resolved your problem? What would that look like? Can you imagine the traffic issues that we would have if people felt empowered to stop and wrestle with their problems until they were all resolved?

Of course this is a very unlikely scenario, and yet there are situations in which people feel that it is perfectly acceptable to take no action at all, given a certain set of circumstances. Not only is this a generally unacceptable approach to problem solving, but this type of paralysis can have far reaching and unintended consequences.

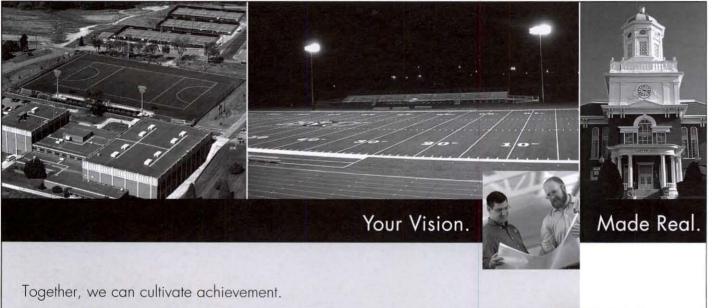
Think about what it would be like if we chose to not take action in certain situations. What would it really hurt? There are probably times that we are all tempted to "do nothing" about a particularly troublesome situation. The last house that we bought developed cracks in many of the walls shortly after we moved in and an investigation showed that the problems stemmed from sagging joists in the crawl space. Further investigation also showed that the cracks had developed long ago, but were patched without any permanent correction to the underlying problems in the structural foundation. The previous owners approach of "doing nothing" to correct the real problem simply postponed the inevitable. Since childhood, we have at times held out hope that if we don't take whatever difficult action is required to resolve a problem, perhaps it will simply go away. Experience tells us, however, that this type of paralysis only leads to even greater problems as the original problem continues to grow, or even spawns other related problems. Paralysis almost always leads to more serious consequences than taking some kind of action. Think about it. Isn't inaction actually an action?

Before we look at the potential consequences of decision paralysis, let's look at some of the common reasons that this might occur. First, we might have what a now-defunct television show terms, "The Fear Factor." At times we are frightParalysis almost always leads to more serious consequences than taking some kind of action.

ened by the prospects of making a clear decision and commitment toward a certain plan of action. Our fear is that the wrong decision could have disastrous results and expose our own leadership weaknesses.

Secondly there might be a multitude of potential options available for the particular situation and we are faced with making a decision that requires a commitment to one particular solution over another. The wide variety of solutions available causes paralysis toward any one particular solution.

A third potential reason for inaction is grounded in different people persuading us to lean toward their own personal agendas. If we are not diligent in pursuing the best solu-



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tion, we can be overly influenced toward differing solutions depending on the strength of the people pulling us in their specific direction. Without the ability to discern among the arguments presented and find the best solution, we can appear to flip flop and remain indecisive to the point of paralysis.

Finally, if we only see bad choices surrounding a particularly troublesome situation, we are reluctant to intentionally

make a tough decision even in the face of bad alternatives.

I invite you to examine four different areas of responsible leadership and the potential consequences of inaction in each of those areas focusing specifically on organizations, facilities, campuses, and the global impact of decision paralysis.

ORGANIZATIONS

Are you satisfied with the status quo? Have you achieved the pinnacle of success in your own organization? Perhaps you have, but chances are that you aren't the world leader in organizational development and could use improvements in at least a few areas.

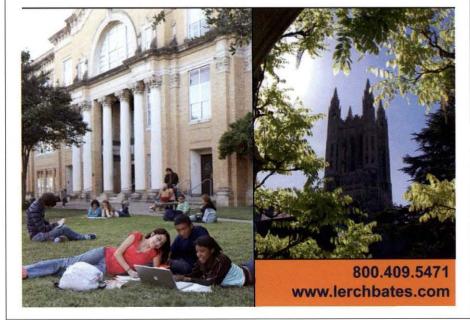
Think about what might happen if you do not take action toward improving your organization. The best you are likely to achieve is your current status quo and you can be certain, that a downward slide is in your future. When you become satisfied with the status quo, problems are often neglected and things that may not seem so bad grow into larger problems until they become significant enough to regularly divert your attention from more important matters. This pattern continues until you spend most of your energies chasing problems with little focus and attention on improvements or strategic efforts. The dog is simply chasing its tail.

This pattern is followed by a steady decline in employee morale. Employees need to have a vision for the future while embracing good values and feel that they are contributing toward a higher level of achievement. This can only be provided by leaders that have enough vision and decisiveness to show the way. Organizational paralysis will decay whatever progress had been previously made toward institutional priorities. Rather than forward momentum taking an organization to the next level, backward momentum will drop an organization to the next lower rung on the ladder. Momentum is powerful and any momentum is hard to change, but backward momentum is particularly difficult to reverse. With decision paralysis, the entire future of your organization is potentially at risk.



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Deferred maintenance or simple neglect?

FACILITIES

Imagine doing nothing about the condition of your facilities. Of course a certain backlog of capital renewal is to be expected on almost any campus, except for those fortunate few whose administrators have seen the wisdom in adequate facilities funding strategies. In those rare situations, their resources are sufficient to meet the needs and they seldom face extreme choices in maintenance and capital renewal expenditures. Yet most of us deal with situations that are far from ideal. If we fail to position our decision makers to make the right decisions about allocating resources to support our physical facilities, we will continue to see a steady decline in our buildings, grounds, and infrastructure. This is particularly troublesome since the problem has the propensity to exponentially increase over time. The neglect of our facilities is a certain recipe for disaster.

If our facilities become increasingly neglected, then it follows that our customers will become increasingly unhappy. Systems failures, utility outages, deteriorated finishes and unkempt grounds are only tolerated for so long before changes are demanded. If these persistent problems are the direct result of failing to make the right decisions with whatever resources we have available, or our inability to take action on the most important elements of deterioration, then our career in higher education facilities management could be in jeopardy. Likewise, a failure to maintain our facilities in a minimum level of condition will result in an exponentially growing backlog of needs. As the backlog grows, more demands are placed on the maintenance staff until they are unable to keep up with the constant failures experienced around campus. The end result is a disaster for the campus and the loss of all credibility for the responsible facilities organization.

Directly related to the deteriorating condition of the facilities and the growing impatience of our customers is the cost of repairs. As conditions decline in our facilities, the measures required to restore them doesn't increase in a straight line equation, but has exponentially increasing implications. The cost associated with repair work is far more severe and costly if our facilities are continually neglected as compared to keeping pace with crucial repairs as they are

discovered. Many of our building systems and their associated infrastructures are interrelated and deterioration in one area will often result in unintended consequences in areas that would otherwise be fine.

One example might be a water leak. If a leak develops in some area and persists from neglect, it will most certainly cause deterioration in many areas that surround the original problem area including staining, rotting and possibly mold. As you can imagine, it will be infinitely more expensive to replace finishes, make structural repairs or clean up a mold problem than it would be to fix the leak when it is initially discovered. This scenario also has the net effect of increasing the cost of capital renewal needs and the total cost of ownership in buildings.

CAMPUS

As we have already seen, a continuing degradation of our facilities due to decision paralysis has serious implications on the condition of our facilities and their growing capital needs. Neglect of our facilities ultimately leads to a deterioration of our campus infrastructure, even if we don't intend it. When more resources are directed toward mounting facilities issues in response to specific complaints, then our entire infrastructures begin to experience neglect. With no specific campus advocate waving their flag for infrastructure needs except for facilities professionals, they are vulnerable to these unintended consequences. This is particularly acute in research and health care environments where utility reliability is crucial to their existence. A multitude of problems begin to arise with a crumbling infrastructure.

Utility outages begin to occur with greater frequency causing disruptions anywhere from minor inconveniences to major loss of research data, eroding sewer pipes begin to fail causing disruptions to the routine business of educating our students and flooding occurs in campus areas that don't drain properly. These are just a few examples of how our "*invisible*" infrastructures silently support the business of higher education, research and health care. When these crucial systems fail, we become exposed to increasing criticism from the campus community and our political support begins to disintegrate.

Without corrective action, this leads to a spiraling downward freefall of our budgets as resources are directed toward more politically favorable areas. This simply compounds the problems and we begin to see an erosion of quality student applications as the institution's marketability begins to suffer. Previous CFaR research projects [APPA's Center for

Facilities Research] have already validated the importance of our physical facilities in the recruitment and retention of quality students.

GLOBAL

From the global perspective, these increasingly disruptive occurrences that result from the inability to make seemingly simple decisions can begin to have adverse effects on our surroundings in a global sense. To begin with, the impact to our sustainable environment can become significant. Indoor air quality issues have a direct impact on people's health and performance; contaminated water supplies can cause unnecessary illnesses; inappropriate storm water discharges can reduce the quality of the regional storm water quality; ineffective building systems can waste large amounts of energy and unnecessary resource consumption reduces our ability to meet future global demands. With a growing awareness and focus on sustainability issues surrounding our campuses, this creates an unacceptable risk for the institution and their ranking among their peers, not to mention the

The inability to make good decisions or take decisive action when required is an insidious enemy that lurks just below the surface of most crucial situations.

continuing degradation of the overall global environment.

In addition to the direct impact on our environment, eroding facilities can undermine the very research that we embody. Without reliable facilities and utilities, we are unlikely to continue receiving grants and awards for major research initiatives. After all, successful research begets more research. If we fail to attract more research grants, then the potential opportunities to make significant contributions to society that research provides, may never be fully realized. The lost opportunities in this area are immeasurable.

(continued on page 52)



What's Happening on the Code Front?

By Scott Edwards

Probably the most important change that is happening within the Fire/Life Safety Codes and Standards arena is the 9th Edition of UL864. The important question is this: have you heard of the changes?

For those not familiar with specific UL Standards, this particular standard deals with the listing of Fire Alarm Control Units (FACP). The important event unfolded on December 31, 2008 is that all UL864 panels must be compatibility



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listed with signaling appliances used on the panel from this date forward. Some may be saying that this is already happening or is already being practiced. Not true! There has never been a compatibility requirement by either NFPA (National Fire Protection Association) or any nationally recognized testing laboratory. The only requirement for compatibility listing prior to this change was the listing of two wire smoke detectors. The only listing for notification appliances was that a panel manufacturer was required to submit a notification appliance to the testing laboratory to indicate that the notification circuit was indeed functional.

So why are we changing now? What was broken that needed fixing? Some said that strobe lights were overloading their control units' power supply. Some were saying that the strobe lights simply didn't work. Still others said that the strobe lights were being damaged. As a manufacturer of strobe lights, I can tell you this: the number of units that were returned because of electrical damage won't even fill up the back of one of those new Smart cars.

REAL-LIFE APPLICATION

What does this mean to facility managers and building owners? Let's first start by looking at when you decide to put an addition on a facility. If you replace the panel, then all signals down stream from the panel will also have to be replaced because now they are no longer "compatibility" listed with the new panel you just installed. Even if the signals are still functional, they won't be listed with the new panel, and therefore the AHJ (authority having jurisdiction) will not allow their use. That is probably the biggest obstacle facing the building owners and managers out there today. Change a panel and you are now required by code/ standard to change all signals because they are no longer compatibility listed with the panel. Seems like a waste!

We have been trying to get a code change into UL864 that would require that all panels have at least one regulated circuit. With one regulated circuit you would be able to use an extender panel and use all the legacy signals that are currently in place. However, we have been running into opposition from some panel manufacturers that listed all their control units to the special application criteria. This special application listing was misused, and we have been told by one of the listing laboratories that they didn't anticipate the manufacturers of panel to list to special applications as they did.

But seriously, what better way to limit what you can use on a panel? You may not have the choices you once had; this may have an adverse effect on commerce and obviously be more costly to building owners and facility managers. If we go back to the genesis of this issue we can see that prior to the ADA requirements, signals (especially strobe lights) made up less than 10 percent of any fire alarm installation. Now with the new requirements for ADA, not only are we installing more appliances, but we are also installing appliances that draw more current. So was there an issue? Or did we just create one?

NEW REQUIREMENTS

Another change coming in the National Fire Alarm Code deals with intelligibility testing. The important thing to remember here is the subject based testing will still be one of the options for you to use. NFPA has done a lot of research on intelligibility testing and we commend them for that research. As we use more and more speaker systems in our facilities we should make sure we can understand what the message is when it is transmitted. Chapter 7 of NFPA 72 will have new criteria for testing and placement of speakers included in their chapter. There is also a new appendix document which will help with the installation of speakers to meet the requirements for an intelligible communication system.

New this year in the NFPA Fire Alarm Code is the chapter on Emergency Communication System requirements (Chapter 12), formerly known as Mass Notification Systems. This is a new chapter to NFPA 72. A lot of work has gone into this new chapter and with anything new we must work through all of the bugs as these new requirements come into being. For example there is already a controversy over whether the amber strobes used to alert the occupants to an event (other than fire) need to be polar plotted as white or clear lens strobes listed to UL 1971. There are positives and negatives to requiring these amber colored strobes to be polar plotted. One huge negative will be the current draw increase which equates to more batteries, and more batteries mean more expensive systems. On the positive side, if you want to go that route would be that these appliances would meet the same light distribution as the white light units for the hearing impaired.

There is also a new requirement coming out for the Hard of Hearing (HOH). This will be that a 520HZ square wave signal exist in the rooms that are occupied by hard of hearing individuals. We believe that the Single and Multiple Station Committee in NFPA 72 indicated that wherever the hearing impaired rooms are, they will also be equipped with an appliance meeting this new requirement. So we believe it is only a certain percentage of rooms that will require this new appliance. As you all probably are aware from NFPA 720, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment was recently released. Along with the NFPA Standard it is our understanding that the International Residential Code also adopted the requirements for CO detection in Section 313. Also regardng the International Residential Code, and probably not that important to facility managers, they recently adopted the requirements that all new one to two family dwellings be installed with a sprinkler system in accordance with NFPA 13D.

Stay tuned as there are many issues taking place every day! (3)

Scott Edwards is vice president, Fire Protection Products Group, for Gentex Corporation in Zeeland, MI. He can be reached at *scott.edwards@gentex.com*. This is his first article for *Facilities Manager*.



The Development and Application of Policy-Based Tools for Institutional Green Buildings

By Anthony F. Cupido, P. Eng.

n May 2008, APPA forwarded a Web-based survey on behalf of the author, an APPA member and current President of OAPPA (in Ontario), to all designated representatives of member institutions. The purpose of the survey was to determine

if institutional policies are an important criterion for an institution's sustainable building practices and the use of Leadership in Energy and Environmental Design (LEED®). The survey specifically focused on water conservation and rainwater harvesting.

This research consisted of a Webbased survey to gather information about an institution's sustainable building practices and the use of specific tools or instruments such as policies, guidelines, standards, laws, or goals for "green" buildings.

Initiating this survey through APPA's Center for Facilities Research (CFaR) has provided an opportunity to expand and strengthen the facilities body of knowledge, as well as engage members in groundbreaking research regarding green building policies in the United States and Canada.

The survey was completed by 218 members and represented a good participation rate of approximately 20 percent.

Follow-up interviews were conducted during the summer, with 24 individuals who volunteered to participate with additional detailed questions. The number of individuals was selected to ensure that four members in each of APPA's six regions were chosen to give a geographical balance across the United States and Canada. These interviews provided



more in-depth insight into the approach senior facility officials use while working with sustainable policies, guidelines, standards, laws, or goals. Barriers and challenges adhering to existing policies or adopting new policies were explored. Understanding the use of consultants for the LEED registration and subsequent documentation, as well as related costs, was examined.

Related research has concluded that university sustainability policies are important because they seem to determine the degree to which a university will attempt environmental change and engage in sustainable initiatives. While there is a growing movement toward a sustainable future in higher education, there is clear evidence that an opportunity exists to enhance policy development and application in higher education as it relates to the promotion of sustainable building practices and the application of LEED.

PRECIOUS WATER

With respect to water conservation and rainwater harvesting, the critical importance of water as a precious natural resource cannot be overstated. As ongoing pressure from economic growth continues, concerns will be introduced regarding reduced reliability of water supply and water management. The results of these concerns may include policies relating to the development and adaptation of innovative technologies and processes. Many APPA members are experiencing water restrictions in their state or local municipality due to weather and climate changes that are impacting their respective campuses.

Rainwater harvesting provides the opportunity for institutional buildings to limit their demand for conventional potable water supplies. As part of the design and construction of a new Faculty of Engineering building at McMaster University, the objective is to collect rainfall from the roof of the five-story building and to reuse it for both potable and non-potable uses in the majority of the building.

Preliminary results and conclusions of the recent survey and interviews are indicating the following:

> RELATED RESEARCH HAS CONCLUDED THAT UNIVERSITY SUSTAINABILITY POLICIES ARE IMPORTANT BECAUSE THEY SEEM TO DETERMINE THE DEGREE TO WHICH A UNIVERSITY WILL ATTEMPT ENVIRONMENTAL CHANGE AND ENGAGE IN SUSTAIN-ABLE INITIATIVES.

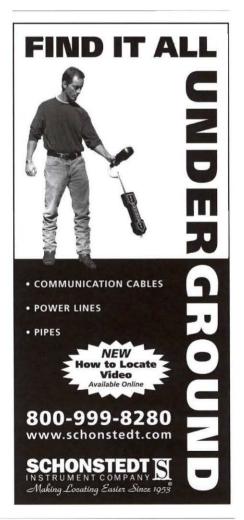
- APPA members are playing an important leadership role in the development of institutional policies, guidelines, standards, or goals for "green" buildings. They are providing the vision for sustainable buildings at their respective campuses or helping to lead sustainable teams of stakeholders for that purpose.
- That LEED is the dominant tool used by institutions as a policy, guideline, standard, or goal to establish a "green building" on their campus.
- In their capacity/role on a new "green building" design team, over half of the respondents wished that they had a green building policy to ensure that they could obtain a particular "green" building standard such as LEED and/ or a particular level of LEED that others may be arguing against for various reasons.
- When asked to rank the importance of water conservation with the conservation of electricity and natural gas, approximately 70 percent acknowledged that it was equally or more important.
- Waterless urinals are problematic to maintain and are becoming less favor-

able by APPA respondents to specify for new construction and renovations.

The results of this survey and the follow-up interviews will provide us with an opportunity to enhance policy development and application in higher education as it relates to the promotion of sustainable building practices and the application of LEED.

A comprehensive review and analysis of the survey data and interviews is still taking place and will be completed in the spring of 2009. The results of the survey and the analysis of follow-up interviews will be published on the CFaR website when the review and analysis is completed. **(5)**

Tony Cupido is the assistant vice-president of facility services and a Ph.D. candidate with McMaster University in Hamilton, ON. He can be reached at *cupidot@mcmaster.ca*. This is his first article for *Facilities Manager*.



(continued from page 27)

he said. "The liability was that they had a mental block that we could get something a lot worse than 1993."

Emergency plans on paper are valuable tools "but rarely anything goes according to plan in an emergency," declared Brown. "People who think they have a plan to respond to something extraordinary and that it's going to go just like that are in for a rude awakening. The planning is really practice, and the practice gets your people ready for the extraordinary. You can always be assured that extraordinary things are going to happen."

"Never assume that the disaster you just had is the worst that can happen to you," agreed Guckert. "We are studying now what we should do to protect our facilities in the future and we are not assuming we have seen the worst that we will ever see in our lives."

"It's 'what do you do if...?" said Bracy. "You never know what's going to happen."

But Guckert suggests that even the worst disasters provide a positive opportunity for facilities officers. The Iowa flood "gave us a showcase opportunity to show the institution what we were made of," he said.

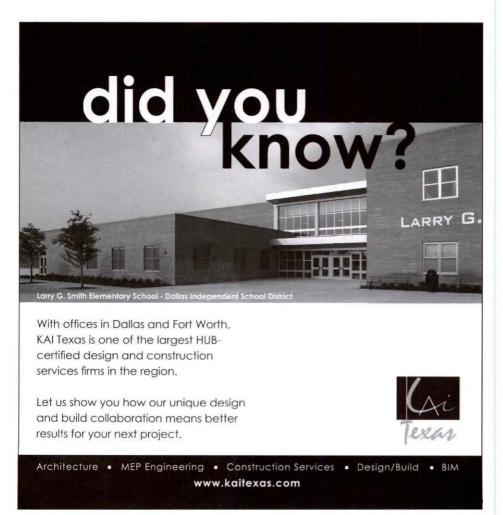
As conditions worsened, daily meetings that began "modestly"

"...planning is really practice, and the practice gets your people ready for the extraordinary. You can always be assured that extraordinary things are going to happen."—Tom Brown

with attendance by campus officers from different facilities began also drawing in the university president, vice presidents, and senior staff in communications, public relations, and other operations. "We were the organization in charge of protecting the campus and all institutional eyes were on us and how we were responding," Guckert said.

"It was an opportunity for people to see what we were capable of doing; how we could marshal our staff and redirect it and effectively deal with all the challenges we were facing. People realized how systems and the buildings they long took for granted —and now were losing — were so vital to the operation of the campus. It gave the institution an enormous appreciation of the complexities of higher education facilities and what it really takes to keep a campus up and running." (5)

Alan Dessoff is a freelance writer based in Bethesda, MD, and a frequent contributor to *Facilities Manager*. He can be reached at *adedit@verizon.net*.



(continued from page 47) CONCLUSION

Picture a world without great thinkers and inventors. If they were paralyzed by the inability to make decisions or to continue testing their ideas in the face of repeated failure, we would be missing many of the greatest inventions of all times and would be stuck in times gone by. The inability to make good decisions or take decisive action when required is an insidious enemy that lurks just below the surface of most crucial situations. Don't let it get the best of you causing some of the unintended consequences discussed above. Sometimes we need to take decisive action even when the choices are difficult, or as Nike likes to say it, "Just do it!" 🗊

Steve Thweatt is associate vice president for planning, design, and construction at Emory University, Atlanta, GA; he can be reached at *steven.thweatt@emory. edu*. This is his first article for *Facilities Manager*. Book Review Editor: Theodore J. Weidner, Ph.D., P.E., AIA

The new year brings us an

opportunity to start afresh and so I've found one book focused on "out with the old and in with the new". Then, because of the never ending need for safety, an esoteric book on hazmat transport. I hope these and other books presented in the coming year result in increased success for all.

Ted Weidner

REFABRICATING ARCHITECTURE; HOW MANUFACTURING METHODOLOGIES ARE



POISED TO TRANSFORM BUILDING CONSTRUCTION By Stephen Kieran and James Timberlake, McGraw-Hill, New York, 176 pages softcover, \$19.95

Decades ago I remember my father ordering a car with the options and

colors he wanted and waiting several months for it to be fabricated and delivered; a big improvement over Henry Ford's "any color as long as it's black" slogan. Now, we're able to get online and order a car or to custom-design a computer by selecting from a variety of options, colors, and accessories. Provide a credit card (or arrange for financing online) and delivery address and within a week the computer arrives at your doorstep or the car is available at a local dealer. Even children can get online and custom-design a Muppet toy.

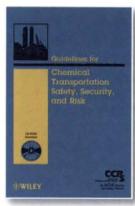
There are numerous other consumer products where this can be done to the point where many people believe it should be the norm in the marketplace.

Campus architects face the question, why does it take so long to design a building when "I know what I want"? That's the question Kieran and Timberlake ask in *Refabricating Architecture*; why can't we bring numerous components assemblies of many smaller components such as valves, lavatories, counters, waste lines, and traps — and install them whole into a building and shorten the design, manufacture, and assembly process. Airplane manufac-

turers, Airbus and Boeing have been doing this: wings made in one country, flight deck in another, seats in a third. They bring them together and produce the end product in a fraction the time, with significant cost savings.

Kieran and Timberlake claim to have done this themselves in a residential college renovation project for Yale. Checking with the campus architect for the project, Pam Delphenich (now at MIT) said while the suggested cost savings weren't realized, the improved construction schedule and sequencing was. She enjoyed working with their creative thinking about the construction process. Now, rather than getting that creative thinking only when a campus hires them, Kieran and Timberlake are pushing the design and construction industry to rethink and refabricate what design and construction mean.

Long on examples but clear and focused, *Refabricating Architecture* provides readers with the rationale and methods to think about building construction differently; to become more client and outcome focused, and to improve the way we deliver capital construction to campuses that long for new and better ways to get through the facility issues and to focus on the programs that the facilities serve. While not for everyone, this book suggests new ways of focusing on the our real goal of serving faculty and students better.



GUIDELINES FOR CHEMICAL TRANSPORTATION SAFETY, SECURITY, AND RISK MANAGEMENT By Center for Chemical Process Safety, Wiley, New York, 162 pages, hardcover, \$125

This book is written mostly for the company transporting hazardous ma-

terials either from the process plant to end-user or waste hauler from end-user/ generator to disposal facility; not many of us fall in that category. However, for those of us with large or distributed campuses and hazmat responsibilities, this book has relevance.

Chemical Transportation is all about process, risk assessment, and the development of scenario responses. Most scenarios deal with accidents and preventing an accidental release but since 9/11, transporters have to worry about deliberate releases of hazardous materials resulting from terrorist actions. Our heightened awareness of potential deliberate releases is greater when we look at disaster preparedness on campus; initially it is gunmen but next it could be a chemical release.

So while this book isn't for everyone and it doesn't look at campuses in particular, it provides the tools to analyze hazards and work through procedures and processes to create a safe way of moving hazardous materials from one point to another. It is evidence and support for those of us responsible for more and more of the uncontrollable parts of campus operations. (**§**)

Ted Weidner is assistant vice chancellor of facilities management & planning at the University of Nebraska-Lincoln and president of Facility Asset Consulting. E-mail him at: *tweidner2@unlnotes.unl.edu*.

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products provide a full line of dependable and durable temporary power products to stay safely connected on the jobsite, avoiding the power interruptions that slow down work in the field. For additional information visit Cooper Wiring Devices at *www.cooperwiringdevices.com/temppowersolutions*.



Capital Safety introduces the Parapet Wall Anchor for personnel working on parapet wall-type structures such as balconies or roofs. The Parapet Wall Anchor has a unique nonpenetrating design. Installation is a simple two-step process that involves adjusting the sliding

arm to fit over the wall then reinstalling the detent pin and hand-tightening the screws until snug. This design allows the anchor to be installed and removed without the need to drill and patch holes, avoiding refurbishment costs. The anchor is lightweight, allowing it to be transferred between locations with ease. For more information about Capital Safety visit *www.capitalsafety.com*.

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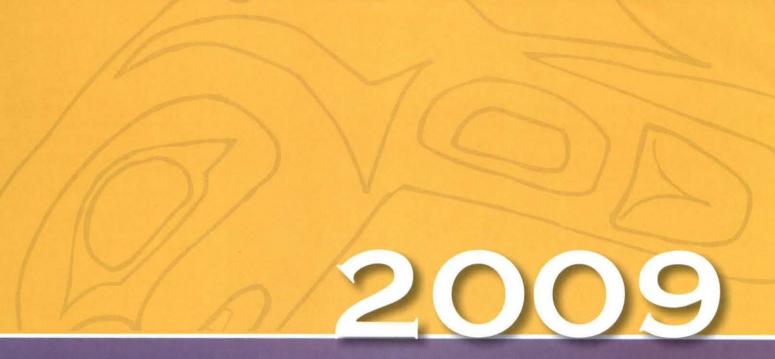
gouging applications. For additional details visit Hypertherm at *www.powerfulplasma.com*.

Chromalox & Massey Services team up to introduce "green" solutions ideal for schools and other multi-unit facilities. Colleges, universities, and other multi-unit facilities battling bedbugs now have an effective, chemical-free alternative with the ThermEx Heat Remediation Solution developed



by Chromalox, a manufacturer of electric heat and control products, and Massey Services, a service

provider in the pest management industry. Research shows that heat is more effective than traditional pest management approaches in eliminating bedbugs, because they hide in cracks and crevices and do not come in contact with residual products. However, bedbugs are vulnerable to high temperatures sustained over a short period of time. ThermEx Heat Remediation Solution includes a Chromalox custom heating unit and comprehensive technical training by Massey Services. The Chromalox unit heats the room to targeted temperature range, which kills bedbugs at all stages of development; egg, larvae, pupae, and adult. For more information about Chromalox visit *www.chromalox.com*. For more information about Massey Services visit *www.masseyservices.com*.



FOCUSING ON THE CRITICAL FEW

SAVE THE DATE JULY 8-10 2009



Penco Products, Inc. offers the Penco Smart Tool Crib™. The Smart Tool Crib system permits authorized employees to log into the system using their existing ID cards and to select specific tools or equipment from compartments identified on a flat panel monitor. After successful login, the doors open automatically permitting removal of the items. Closure of the door identifies the compartment as empty, and records the identity of the person who accessed it. User access, duration of possession, and time of return are all logged, which in turn support a number of report-



The system shown incorporates a mix of 48" tall 2- and 4-tier compartments accessed using a standard keyboard and card swipe interface. Optional configurations incorporate a fully integrated touch panel monitor and control cabinet For further information visit Penco Products, Inc. at www. pencoproducts.com.

New Products listings are provided by the manufacturers and suppliers and selected by the editors for variety and innovation. For more information or to submit a New

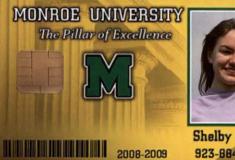
Products listing, e-mail Gerry Van Treeck at gvtgvt@earthlink.net.

ing options. Administrators can open all doors in seconds, or lock down the system altogether. The Smart Tool Crib is a variant of Penco's SmartLocker® electronic locker system.

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