

September/October 2003

VOLUME 19

NUMBER 5

Facilities Manager

The official publication of APFA: The Association of Higher Education Facilities Officers

Choosing to Stay Hungry

A Profile of President Brooks Baker

Nonprofit Org.
U.S. Postage
PAID
Permit No. 653
Alexandria, VA

Are you trying to reduce your total cost of operations?

Let **TMA** provide you a *comprehensive suite of software products* that will help you achieve your goal.



TMA SOFTWARE SOLUTIONS

- Work Order Management
- Preventive Maintenance Management
- Equipment Management
- Materials Management
- Handheld Paperless Solutions (Palm OS)
- Wireless Handheld Solutions (Pocket PC)
- Web Enabled Work Request Module
- More than 300 Built-in Reports and Graphs
- Asset/Building/Space Management
- Personnel Management
- Scheduling
- Project Management
- Contract Management
- Safety and Risk Management
- Hazardous Materials Management
- Bar Coding
- Estimates
- GASB 34/35 Compliant
- Cross-platformed with Mac and PC



TMASYSTEMS

The Power To Manage.
The Power To Succeed.

800.862.1130 (toll free) • 918.858.6600 (main) • www.tmasystems.com



SPECIAL FEATURE:

CHOOSING TO STAY HUNGRY:

A PROFILE OF PRESIDENT BROOKS BAKER SEE PAGE 37

by Alan Dessoff

42 2003 Effective & Innovative Practices Award Recipients Show Invention and Progress

American University

by Michael Griffin and William G. Suter

Emory University

by Robert S. Hascall

Slippery Rock University

by Michael Kukawa

University of Florida

by Jean M. Sweitzer

University of Miami

by Leonard Nash

FEATURE ARTICLES:

52 Introducing the Center for Facilities Research

by Maggie Kinnaman and Gary L. Reynolds

57 Why Do We Need Facilities Research?

by Theodore J. Weidner, Ph.D., P.E., AIA

59 Protecting Your Assets

by Wallace E. Glasscock

Facilities Manager

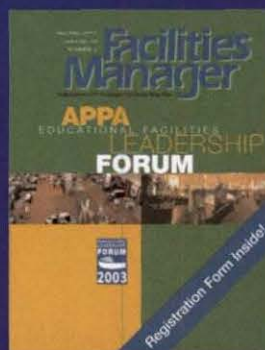
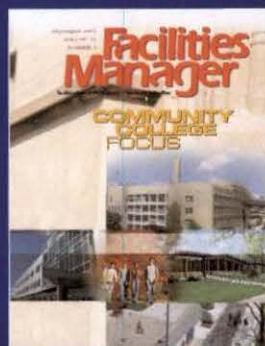
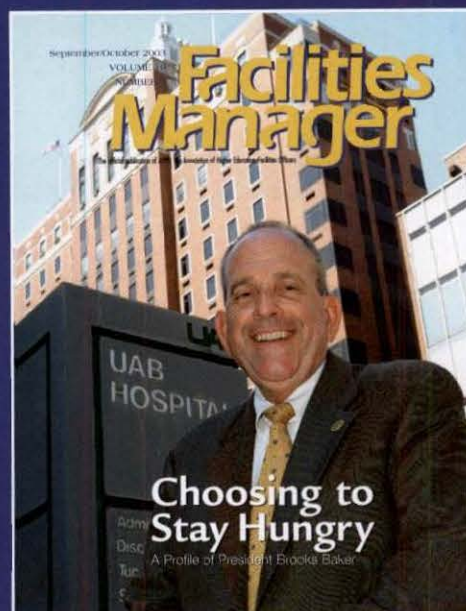
The official publication of APPA, The Association of Higher Education Facilities Officers

Volume 19 Number 5

September/October 2003

COLUMNS

From the Editor	4
APPA News	6
appa.org	10
APPA Continues to Evolve <i>by Suzanne Healy</i>	
Executive Summary	12
Higher Education—Private Benefit or Public Good? <i>by E. Lander Medlin</i>	
Perspective	15
Facilities E-Learning in the United Kingdom <i>by David Corless and Garry East</i>	
Membership Matters	17
What is APPA? A Long-Time Member Responds <i>by Alan S. Bigger and Linda B. Bigger</i>	
Nashville Forum Highlights	19
Field Notes	66
Doing the Right Thing/Doing the Thing Right <i>by James E. Christenson</i>	
Facility Asset Management	68
Theory of Everything—FM Style <i>by Robert G. Brooks, P.E.</i>	
The Bookshelf	71
Book Review Editor: Theodore J. Weidner, Ph.D., P.E., AIA Reviewed in this issue:	
<ul style="list-style-type: none"> • <i>Access for Everyone</i> • <i>Campus Housing Construction</i> 	
New Products	75
Coming Events	76
Index of Advertisers	76



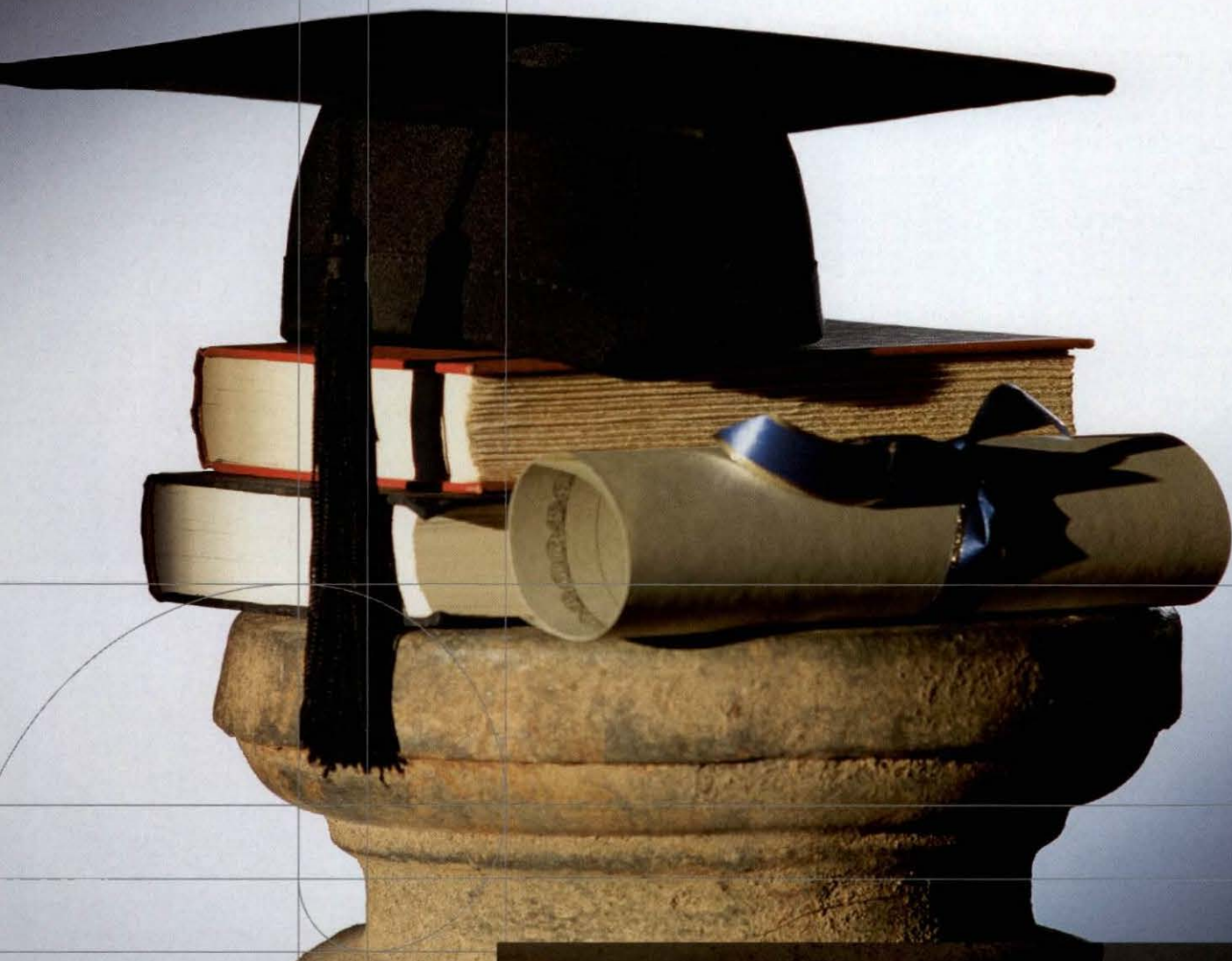
See an
article
you'd
like to
share?

Reprints are available
for all articles in
Facilities Manager.

Contact: Betsy Colgan
betsy@appa.org

SIEMENS

Siemens Building Technologies



Capitalize on our solutions for success.

Today's students have high expectations of convenience and comfort: gothic architecture may still be cool, but not gothic infrastructure! From laboratories to large lecture halls, our integrated facility solutions provide the needed versatility for supporting effective space utilization, while optimizing energy and operating efficiency. We have the extensive experience and resources necessary to help you provide superior environments for learning...and help you maintain a competitive advantage in recruiting and retaining a vibrant campus community. Leading universities and colleges are achieving greater success (and staying cool) by capitalizing on our solutions.

Siemens Building Technologies, Inc.
www.sbt.siemens.com

Facilities Manager

PRESIDENT: Brooks H. Baker III,
University of Alabama-Birmingham
EXECUTIVE VICE PRESIDENT:
E. Lander Medlin, Alexandria, Virginia

EDITOR: Steve Glazner
ASSISTANT EDITOR: Betsy Colgan
SUBSCRIPTIONS: Cotrenia Aytch
CREATIVE DIRECTION:
Creative Media Group
PRINTING: Corporate Press, Inc.
EDITORIAL OFFICE:
703-684-1446 ext. 236
FAX: 703-549-2772
E-MAIL: steve@appa.org
betsy@appa.org
cotrenia@appa.org

WEB: www.appa.org
ADVERTISING:
Gerry Van Treeck
Achieve Communications
3221 Prestwick Lane
Northbrook, Illinois 60062
Phone: 847-562-8633
Fax: 847-562-8634
E-mail: gvtgvt@earthlink.net

Facilities Manager (ISSN 0882-7249) is published six times a year (January, March, May, July, September, and November) Editorial contributions are welcome and should be sent to the address below.

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. For information on rates and deadlines for display advertising, telephone 847-562-8633 or 703-684-1446 ext. 238.

Copyright ©2003 by APPA: The Association of Higher Education Facilities Officers. Contents may not be reprinted or reproduced in any form without written permission. The opinions expressed are those of the authors and do not necessarily reflect the views of APPA. Editorial mention of companies or products is for informational purposes only and should not be construed as an endorsement, actual or implied, by the Association.

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

Published by APPA:
**The Association of Higher
Education Facilities Officers**
1643 Prince Street
Alexandria, VA 22314-2818

Global Partner in Learning

From the Editor

by Steve Glazner

Guckert and King Receive 2003 Rex Dillow Award

It is always a pleasure each year to share the names of the author or authors who were selected to receive APPA's Rex Dillow Award for



Outstanding Article in *Facilities Manager*. The 2003 Rex Dillow Award was presented at the Nashville Forum to Don Guckert, University of Iowa, and Jeri King, University of Missouri-Columbia, for their article, "The High Cost of Building a Better University," which was published in the

May/June 2003 issue. In addition, we are proud to note that this article was recently reprinted in *Business Officer*, the monthly publication of the National Association of College and University Business Officers.

In their award-winning article, Guckert and King lay out the many reasons, and arguments, that lead to higher construction costs for institutions of higher education. Their article also includes a clever sidebar called "Your House on Campus," which responds to the comment often heard on campus, "You've got to be kidding! I could build a nice house for that amount!" Guckert and King use the example of an institution purchasing a house near the campus and facing the many costs related to renovating, modernizing, and bringing up to code for educational purposes. It's a great article well deserving of the APPA Rex Dillow Award.

The award, first presented in 1987, is named for APPA member emeritus Rex O. Dillow, formerly of the

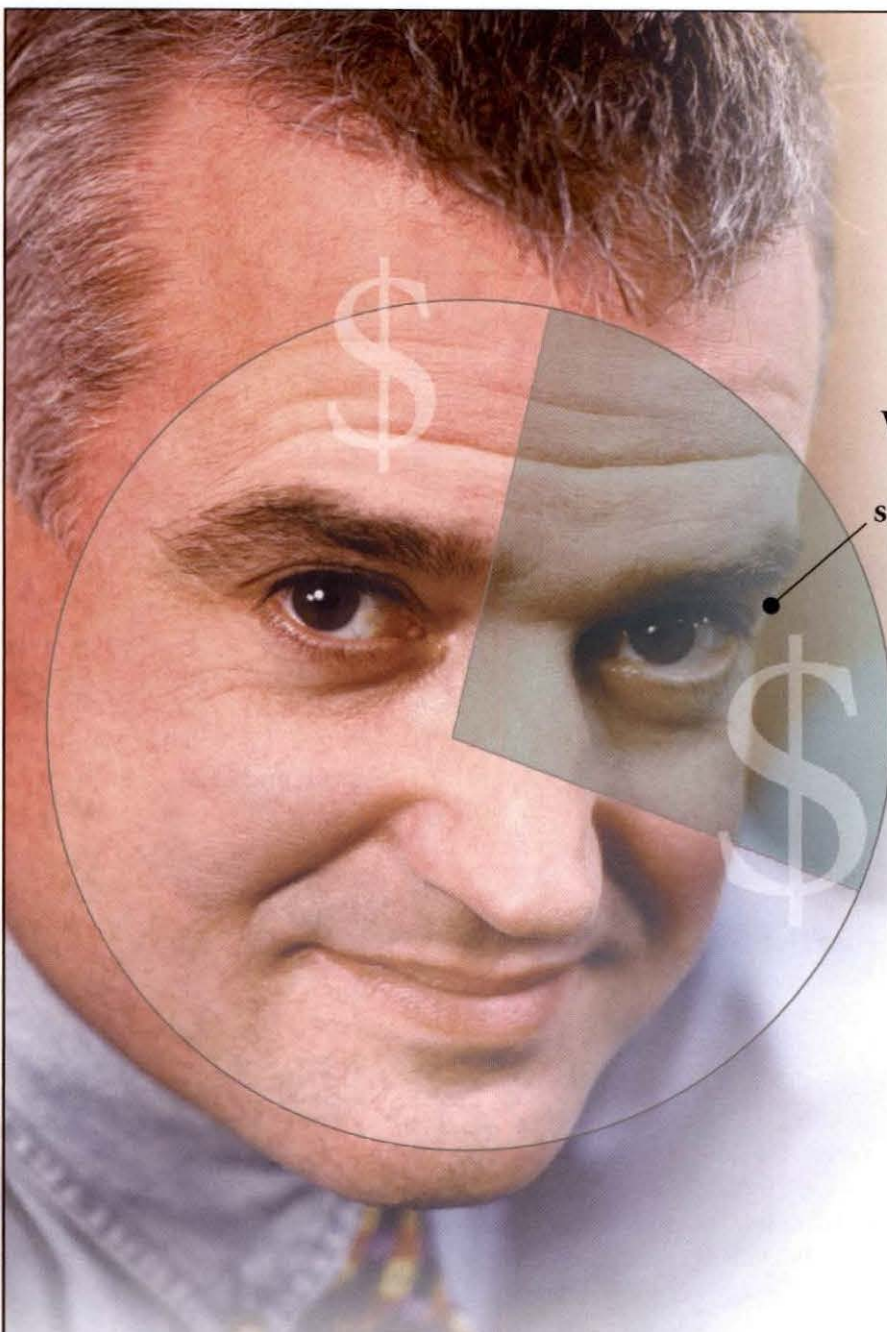
University of Missouri-Columbia, who contributed much to the development and improvement of APPA's publication and education programs during his active membership in the association. There were a record 25 eligible articles for this year's award, and we again congratulate Don Guckert and Jeri King for their excellent work.



An era has come to an end. The Australasian region of APPA, primarily comprising Australia and New Zealand, has elected to create its own independent association. AAPPAPresident Alan McGregor, Murdoch University, presented Phil Cox with a certificate of appreciation at the Nashville Forum that honored the relationship between APPA and AAPPAPover the past 14 years, and which looked forward to working together in the future. AAPPAP's new name will be the Tertiary Education Facilities Management Association (TEFMA). 🏠

Correction

In our profile of 20 community colleges in the July/August issue of *Facilities Manager*, we failed to identify the photographer of the aerial photo of Pima County Community College District on page 41. The photo is from Color Aerial Photography, copyright 2001, Lynn Douglas Lawver. We apologize for the oversight.



**We're helping
school administrators
save millions on custodial
and maintenance expenses**

SDI gives you campus-wide control of your facilities maintenance.

With control comes power. The power to centralize the management of all MRO supplies. The power to boost staff productivity and eliminate excess inventory.

The power to reduce total costs.

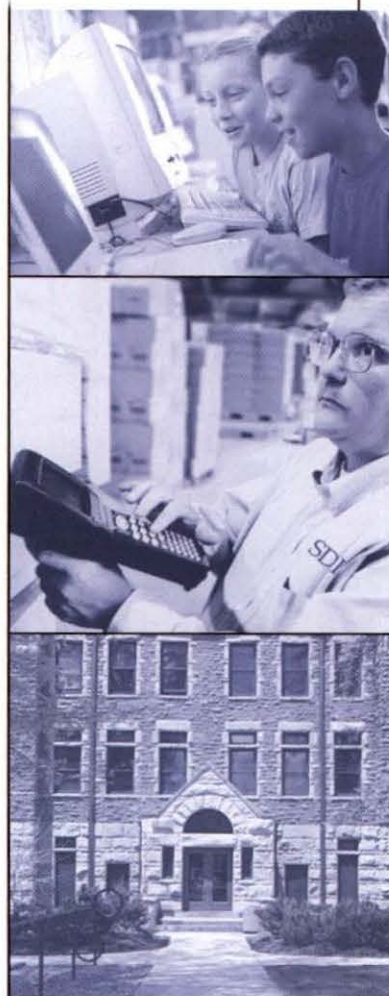
SDI is bringing the supply-chain integration solution proven to save millions of dollars in the business world to academia. Our supply-chain solutions streamline every aspect of your facilities operations – from purchasing best-price, quality supplies to tracking inventory to generating detailed reports for informed decision-making. All in a single, sophisticated system accessible via the Web and convenient hand-held technology.

It's the smartest way to take control of your facilities operations – and save.

Call 215-633-1900 or visit www.sdi.com.

**This is the power of integrating
your MRO supply chain. This is SDI.**

SDI



2004 Institute for Facilities Management

Registration opens November 1, 2003, for the next Institute for Facilities Management. The Institute will be held at the Tampa Marriott Waterside Hotel February 1-5.

Membership News

APPA Unveils New Membership DVD

Are you a member that wants to know about APPA's latest membership benefits? Or, are you a nonmember that is interested in joining APPA but unsure of APPA's myriad membership benefits? If so, then APPA's new "Membership Overview DVD" is the perfect tool for you. The DVD highlights APPA's exciting programs and benefits, including educational offerings, publications, the Center for Facilities Research, and recognition programs.

The "Membership Overview DVD" is complimentary so call for your copy today and learn what APPA can do to enhance you both professionally and personally. This DVD was produced with support from Eaton-Cutler Hammer. To receive your DVD, contact APPA Member Services at 703-684-1446 or e-mail mmauldin@appa.org or randel@appa.org.

Member-Get-A-Member

APPA is rolling out its Member-Get-A-Member campaign. If you sponsor a nonmember institution to join APPA between August 1-October 31, 2003, you will receive a complimentary copy of *Planning and Managing the Campus Facilities Portfolio* and a fully-paid registration to the 2004 APPA Educational Facilities Leadership Forum in Washington, D.C.

Surveys confirm that personal endorsement is the most effective re-

cruitment tool. Here are some suggestions, that if they result in a new member, will get you a new book and a fully-paid registration for the 2004 Forum.

- Contact a colleague at a nonmember institution.
- Share your APPA experience with them and let them know the benefits of APPA membership.
- Send the colleague the new membership DVD.
- Refer them to www.appa.org/newmember.



New Publications from APPA

Planning and Managing the Campus Facilities Portfolio, edited by William A. Daigneau

This book is based on one simple premise: The campus and facilities of a college should be managed using the same principles as any other investment in an institution's financial portfolio. Published with NACUBO. Member price \$30; nonmember \$50.

2001-2002 Comparative Costs and Staffing Report for Educational Facilities

This book provides comprehensive data on facilities management costs and staffing with more than 200 pages of statistical analysis and bar graphs of costs per square foot and key comparisons by Carnegie classification, student enrollment, APPA region, and more. Member price \$95; nonmember \$140.

Order these books today. Visit www.appa.org/applications/publications/index.cfm, fax to 703-549-2772, or e-mail cotrenia@appa.org.

PGMS Green Star Awards

The Professional Grounds Management Society has recognized 22 grounds management programs for excellence in the Society's 2002 Green Star Awards Competition. The 30th Annual Awards were presented in Nashville, Tennessee, during PGMS' Annual Conference held in conjunction with the Green Industry Exposition. In the Government Building/Complex Category, two Grand Awards were given. The George Bush Presidential Library in College Station, Texas, received one of the Grand Awards for the best maintained landscape in the government building/complex category. This 97-acre site is located on the Texas A&M campus in College Station, Texas, and encompasses 75 acres of turf and 22 acres of woody ornamentals as well as a two-acre reflecting pond. Texas A&M's Physical Plant has been responsible for the landscape maintenance of this facility since it was built in 1997. The Professional Grounds Management Society Green Star Awards program is conducted in cooperation with *Landscape Management* magazine. The 2003 awards will be presented in St. Louis in November.

Rise in Community College Enrollment

Community college enrollment has surged across the country as a result of the sour U.S. economy. According to a recent CNN.com article, several schools have reported double-digit enrollment increases. This surge is particularly apparent in industrial areas where factories cut 95,000 jobs and cost 2.2 million workers their jobs.

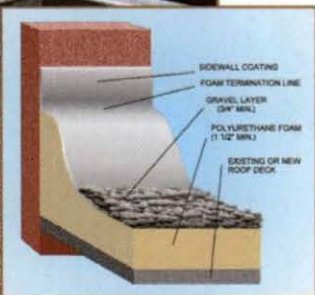
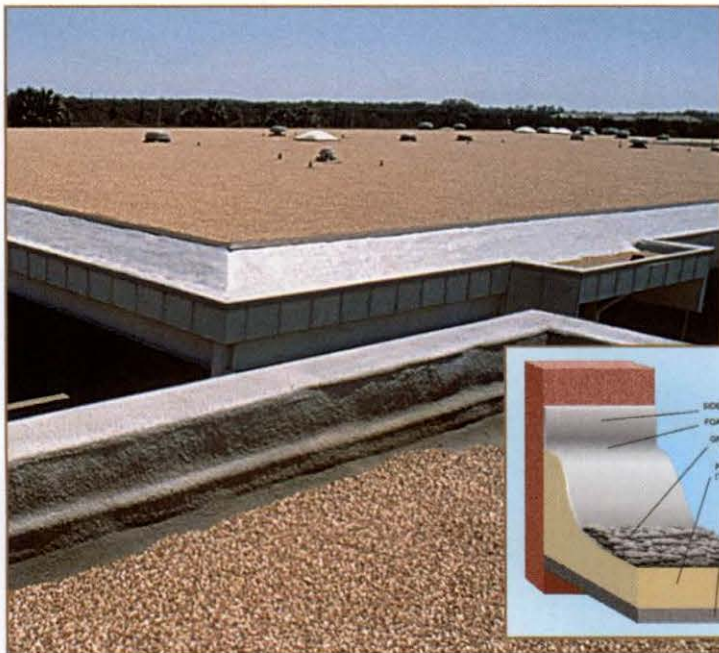
"We've felt the ripple effect of the layoffs. This is the biggest layoff the

Continued on page 8



Some schools aren't meant to be wet.

This proven, cost-effective, seamless GraveledFoam® roof can save you thousands of dollars each year on maintenance and energy costs. It can quickly end all your flat roof leak problems.



- **Leakproof** – seamless without flashings or overlaps, no way for water to penetrate
- **Energy Efficient** – GraveledFoam® roofs have built-in insulation for dramatic energy savings
- **Better Drainage** – can be channeled to eliminate standing water and improve run off
- **Weather Resistant** – rugged polyurethane provides superior protection against extreme conditions
- **Super Durable** – can be resurfaced easily to provide decades of leak-free service
- **Unmatched Economics** – lower installation and maintenance costs combined with year-around energy savings add up to tremendous lifetime value
- **UL 790 Class A** – sprayed-polyurethane-foam roofing system protected by a thick layer of gravel

For more information and the names of local installation contractors, call NCFI 800-346-8229 or send e-mail to: GraveledFoam@ncfi.net
Visit our Web page: www.NCFI.com



P.O. Box 1528 • Mount Airy, NC 27030
800-346-8229

Continued from page 6

area has seen in many, many years," said Sheree Utash, vice president for academic and student affairs at Cowley County Community College in Kansas. "It's driving more and more people to go back to school."

About half of the more than 10 million students who attend the nation's 1,150 community colleges each year go for job training rather than degrees, according to the American Association of Community Colleges. In order to meet this demand, many community colleges must constantly change their course offerings, from computer courses to cooking, or from retail management to radiology. The hottest careers currently are health and computer-related fields.

Financial aid for community college students has almost tripled in the past two years. The U.S. Labor Department provided states with about \$1.6 billion last year to retrain

laid-off workers—most of this money went to community colleges.

EPA Considers New Hazardous Waste Regulations

At a recent meeting with university officials, U.S. Environmental Protection Agency said that they are considering changes to some of the regulations and policies that govern the management and disposal of hazardous materials on college campuses (*The Chronicle*, June 19, 2003).

For several years, colleges and universities have complained that these regulations were written with large industries in mind and don't fit well in college settings, such as laboratories and art studios. There could be hundreds of laboratories on a single campus and professors and/or students cannot be expected to know and follow all the regulations of hazardous material storage and disposal.

"What we should be looking for is a very simple program where you can

go into a lab... and make sure that the people working there know to make sure that [hazardous materials] get to the appropriate person within the institution for disposal," said Bruce D. Backs, assistant vice chancellor for environmental health and safety at Washington University in St. Louis.

This meeting follows years of requests from university officials for change. Recent years have found the EPA vigorously pushing colleges to comply with the existing regulations. Lack of compliance has resulted in several hundred thousand dollars in violations for some universities.

An experiment to test a performance-based method of oversight, coupled with a more flexible interpretation of the existing regulations, was begun in 1999 by the EPA. According to an article in *The Chronicle*, October 15, 1999, the project, involving Boston College, the University of Massachusetts at Boston, and the University of Vermont, had met most of its goals and could provide a model for reforms at the national level. The EPA is expected to recommend that this project, which is scheduled to end in September, continue.

During this recent meeting with the EPA, college officials asked for two items:

- More flexibility in the storage time (more than 90 days) of hazardous materials; colleges that handle relatively small amounts of hazardous materials could then ship these smaller amounts less frequently, saving the college money.
- Better guidance, although not strict rules, about the conditions under which universities would be allowed to treat hazardous material on campuses rather than remove them.

"I feel like I've been waiting my entire career for this meeting," states Kimberly Dalton Ferris, director of environmental health and safety at the State University of New York College at Geneseo. "The EPA hasn't really listened to the regulated sectors before now." 🏠

Condition Assessments

Facilities Inventory

Capital Planning

CAFM

CAD

Life Cycle Planning

Facilities Management

Space Planning

www.tsigconsulting.com

1-877-GET-TSIG

TSIG CONSULTING 740 Broadway, New York, NY 10003

SPECIALIZING IN
COLLEGE/UNIVERSITY
CUSTODIAL SERVICES



WFF "Circle Of Quality"

Our singular goal is to partner with Physical Plant Directors to provide a clean & safe environment for your customers and ours...the student.

Professional Management

WFF Facility Services' management philosophy emphasizes a strong team approach between on-site management, regional management and corporate staff.

Trained Associates

WFF believes quality starts with professionally trained associates. They are the frontline of our company. The individuals our customers see everyday are our associates.

Advanced Technology

As a provider of custodial services to college and university campuses for over 25 years, **WFF** recognizes the importance of advanced technology in all aspects of our business.

Quality Assurance

WFF's Quality Assurance Program requires commitment to excellence by every member of our custodial staff. Our Management Team reinforces this standard of excellence each and every day!

For more information please call: 1-800-852-2388



WFF Facility Services

2815 Olive Street Saint Louis, MO 63103

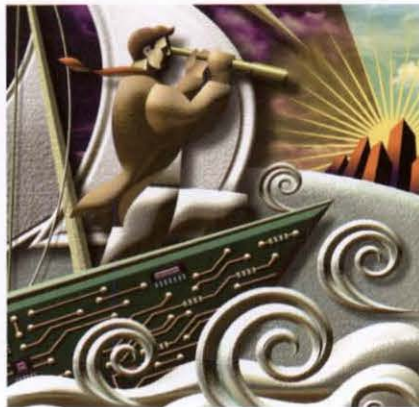
www.wfffacilityservices.com

APPA Continues to Evolve

by Suzanne Healy

Did you ever think that the APPA website could offer you best practices and innovative ideas? Your commitment and patience with the redesign and renewal of the website (although tough at times) has been outstanding. We have appreciated all the feedback you have provided. You may not see your thoughts and ideas in place yet, but that does not mean that we have not taken your feedback into consideration.

Suzanne Healy is APPA's director of meetings, conventions, and education. She can be reached at suzanne@appa.org.



During the next several months, APPA will move to an integrated database that will interface with the website. This will allow for more comprehensive use of member information and will increase member services considerably.

What does this all mean? Every spring when you begin budgeting for construction projects or renovations and then when salary review time is near, we hope you turn to APPA for support and information. If APPA can provide the statistics and trends that you need to do your job, then the association is doing its job. In order to do this, the staff will need some help from you. How? Data collection. The only way we can continue to be a source of information for you is for you to provide us with current member data. Members make this association what it is and staff will continue to look to the members to make sure we are fulfilling your needs.

This will be my last column under the appa.org heading. I have moved from the IT/Web department back into the Education Department where I worked as the meetings manager a few years ago.

I have thoroughly enjoyed taking APPA to the next level in its technical journey and hope to continue in some areas as our educational programming begins to move in the direction of a virtual environment. APPA is pleased to announce that Mary Jane Pimentel has been hired as manager of information services and she comes to this position with a great deal of knowledge and experience in the technological thinkings of associations. As she makes the transition in this new role, I encourage you to connect with her through the website and let her know, as you did me, what works and what doesn't. Mary Jane can be reached at maryjane@appa.org.

And I look forward to seeing all of you at the next APPA Educational Program. 🏰

WATER ALERT® SURFACE WATER SENSING ALARMS



**AVOID DOWNTIME
AND DAMAGE DUE TO
WATER LEAKS AND SPILLS!**

...used in computer room / clean room sub-floors, equipment rooms, and unattended or difficult access areas; anywhere undetected leakage can cause damage, operations shutdown, or time consuming clean-up.

**NEW!
SENSOR
CABLE**

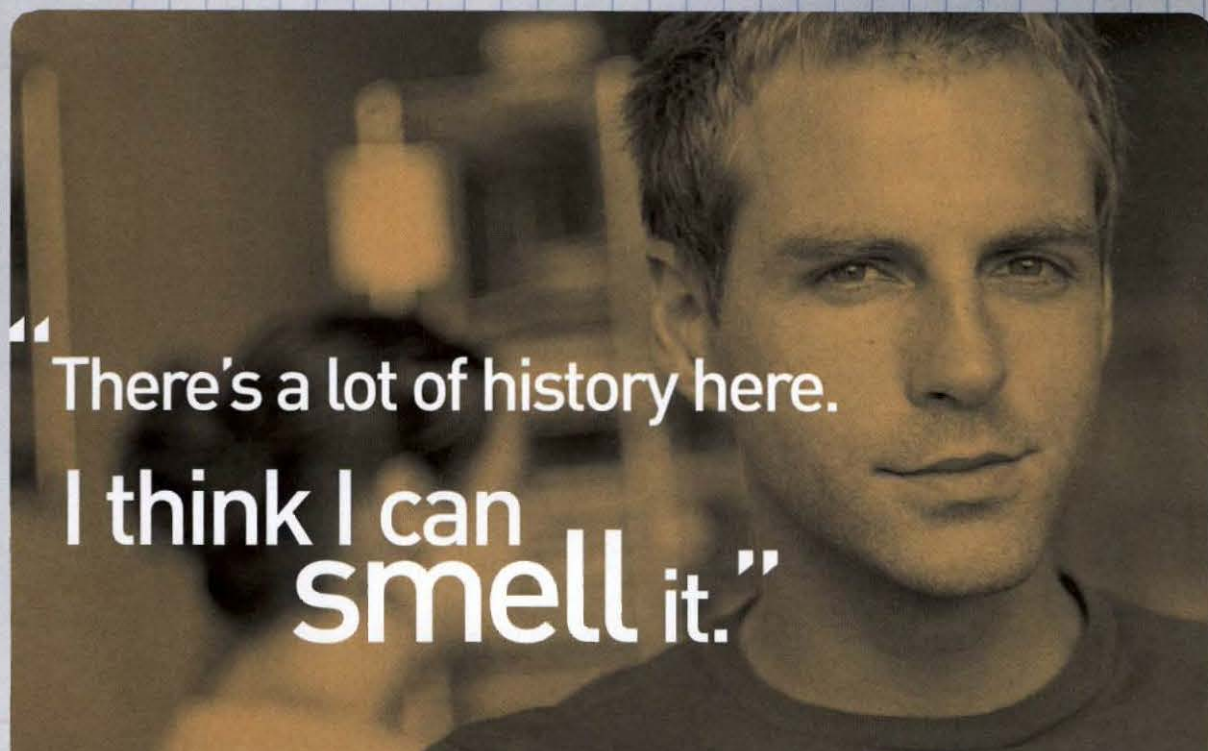
**FOR FREE CATALOG AND
PRICING CALL 1-800-533-6392 TODAY!**

WWW.WATERALERT.COM

Dorlen Products

6615 W. Layton Ave. Milwaukee, WI. 53220

WATER ALERT® detection systems are installed
in over 17,000 sites in the U.S.



“There’s a lot of history here.
I think I can
smell it.”

The look of a historic campus can be a real draw for a college student. The smell is another story. Yes, students today expect a lot from a school. They love your ivy covered walls, but the technology inside those walls factors into their decision, too. Technology that creates environments that are comfortable, well-ventilated and safe. Thing is, more and more administrators face a serious backlog of deferred maintenance that hinders efforts to attract the best and brightest. Johnson Controls can help. We have the experience and know-how to create the finest, most advanced environments for learning and living. And we have innovative financial solutions that make improvements and new facilities possible. Best of all, you end up with the kind of campus today’s students have a real nose for. For details, call us at 1-888-214-0916.

www.johnsoncontrols.com

JOHNSON
CONTROLS

Executive Summary

Higher Education—Private Benefit or Public Good?

by E. Lander Medlin

For the next few minutes step away from the four walls of your campus; step off your state or provincial soil; and step into the national (and in some cases international) political and economic scene. My focus is to provide a broader understanding of the public policy issues and challenges that the higher education community faces, especially from the perspective of our senior institutional officers. It is important to know what is on their minds so we can frame our own issues accordingly and ultimately be heard. This alignment is essential if we expect to be able to work together for the greater good of the higher education enterprise.

First, let us understand the top ten public policy issues for higher education in 2003-04 (as published by the Association of Governing Boards) from the trustees, regents, presidents, and business officers' vantage point/perspective. They are:

1. *Homeland Security.* Colleges and universities must implement three new costly and complex federal laws designed to increase homeland security.
2. *Affirmative Action.* The Supreme Court resolved the legality of affirmative action in admissions, student aid, and faculty hiring by reaffirming higher education's right to address diversity in its enrollment.
3. *Deteriorating Economic and Fiscal Environment.* The federal and state governments face a daunting economic and fiscal



situation, with discouraging prospects for higher education funding.

4. *Surging Numbers of Diverse Students.* Colleges and universities must address the educational and financial needs of a new generation of college students (enrollments expected to reach 17.5 million by 2010).
5. *Rapid Tuition Increases.* Declining state appropriations have forced public colleges and universities to raise tuition at unprecedented rates, with more hikes on the horizon.
6. *Reauthorization of the Higher Education Act.* Congress must reauthorize the law that regulates federal student-aid programs, among other things. Changes to this legislation will affect who receives federal student aid and how much. Congress is focusing on the three "A's," access, affordability, and accountability.
7. *Federal Tax Policy.* Federal tax policies designed to stimulate the economy have sharply divided Congress and the nation.

8. *Assessment and Accountability.* The federal and state governments want institutions to prove their educational results and are devising stringent tests to hold institutions accountable.
9. *Scientific Research.* The scientific community faces challenges in the areas of maintaining balanced federal investments across all scientific disciplines, procedures for bringing research results to market, the ethics of cloning and stem-cell research, and the protection of human research subjects.
10. *Intercollegiate Athletics.* As the public embraces college sports as entertainment, colleges and universities continue to confront issues of control, finances, and equity.

These issues add up to a substantive concern we all must face whether we are employed by the institution or hope to have our children partake of its educational offerings. That core/key question is: "Will a college degree become an individual benefit or remain a public good?" In other words, will access to a higher education degree be assured for all who want to seek a degree? Unfortunately, this implied social contract threatens to be broken!

Why is a higher education degree so important? Several factors have converged to make it so.

- The advent of the information age has created a service economy that requires knowledge workers.
- The need for a high school degree has ostensibly been replaced by the need for a college degree to meet the demands of today's knowledge-intensive society.
- The individual's economic viability and professional mobility is

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

It is a demonstrable fact that a college education, along with the work going on at universities, leads to an improved economy and ensures our global competitiveness.

significantly enhanced (representing a \$1-3 million dollar differential in earnings over a lifetime).

The need for a higher education degree requires open access, equal opportunity, and choice. Will these opportunities continue to exist? Will a college degree become an individual benefit or remain a public good?

As an individual, why should you care? Most of us have children, or grandchildren for that matter, that we want the best for. As a nation, why should we care? It is a demonstrable fact that a college education, along with the work going on at universities, leads to an improved economy and ensures our global competitiveness.

So why is it so difficult now to achieve a college education versus other difficult economic times of the past? Several factors have converged to cause this difficulty. Higher education lags third behind Medicaid and K-12 schools for the allocation of funds (with prisons running a close fourth). Colleges and universities are a walking target for budget cuts. The situation has been dubbed as "the double whammy", i.e. increasing enrollments amidst decreasing resources. But it goes even further.

- More students are less well prepared.
- More students require additional financial aid (80%, up from 48%).
- State governments are "squeezing" institutions; the worst state financial crisis in 60 years.
- Endowments have been "crimped" (down 10%).
- Private donations and philanthropic giving are down 2%.
- Costs for programs and facilities are rising because of increased competitiveness among institutions for faculty and students.

The situation brewing can best be termed as the "perfect storm." So the question remains, "Are these factors driving us toward education as an individual benefit or as public good?" As you mull over your answer to this looming question, let us look at what our institutions are doing (or what they must do) in response to this situation/predicament. Some of the options that institutions are taking include:

- Increase tuition (16 states are raising it more than 10%, with an average increase of 12.5%);
- Assess mid-year student fees;
- Begin mid-year budget cuts;
- Cap enrollment;
- Began layoffs/attrition; freeze vacant positions;
- Restrict travel;
- Limit overtime;
- Cut consultant spending;
- Defer maintenance; cap or zero-out facility renewal or maintenance renewal and replacement dollars;
- Reduce technology equipment/library materials purchases;
- Seek productivity gains through technology
- Consolidate purchasing power (collective buying);
- Streamline back office functions;
- Increase class sizes or reduce course/class offerings;
- Rethink classroom use (given the added space crunch);

Yet, few institutions are ceasing new construction.

The answer is clearly unsettling for all of us. If left unabated, a college education will become an individual benefit only available for the few who are privileged. We must continue to do all we can to insist that broad access is a basic public good. With all the successes of the last 30 years, equal opportunity and open access remain our most compelling policy challenges. Yet, I believe that facilities

professionals are doing their part to best respond to this situation.

C. Peter Magrath, president of the National Association of State Universities Land-Grant Colleges, aptly stated, "Despite the flaws and imperfections we ourselves recognize, in the hard educational currency of the world, there is an inevitable fact: No nation matches the United States in having created a system of higher education that services so many, and generates so much socially beneficial and enriching research of high quality."

We in higher education face only one certainty: uncertainties and challenges. Yet while higher education and the facilities profession are facing these challenges and certainly some changes, it is a noble enterprise; a noble profession; a profession of which to be proud. Since I have had the wonderful opportunity to meet and talk with so many of you across the country, I see in the actions that you take and the decisions you make that you deeply care about our nation's most valuable resource—its educational system. For most of you, it isn't just a job; it's a passion. You are indeed ensuring that the next generation of leaders will be well educated. As APPA professes to "building our children's future one school at a time," you are indeed acting on this profession and making it happen. Make no mistake about it, we are at a crossroads that will require our best efforts and you are an integral part of the solution; you are an important player capable of framing new approaches for a better tomorrow. 🏛️

CONTROL



RESTORATION SERVICES...

Use Munters for disaster recovery services and get back in control fast!

CALL ON MUNTERS FOR:

- Water Extraction
- Drying Services
- Debris Removal & Cleaning
- Temporary Power
- Document Restoration
- Fire Restoration
- Mold Remediation
- Deodorization
- Disaster Planning & Consulting

When you use Munters, you will limit your loss and control your recovery cost by: minimizing the water damage, avoiding unnecessary reconstruction, reducing building downtime, and stopping mold growth.

We'll shorten your business interruption, save your documents, and help you throughout your entire recovery. Only the professionals at Munters can offer you the experience gained after 30,000 successful disaster recovery

projects. Call Munters first. We have the expertise and resources to put you back in control, fast!



Munters

1-800-MUNTERS

MUNTERS CORPORATION
MOISTURE CONTROL SERVICES
79 MONROE STREET, AMESBURY, MA 01913

www.muntersamerica.com/mcs/htm/wdr.htm

Facilities E-Learning in the United Kingdom

by David Corless and Garry East

Our association, as members of APPA, has access to *Facilities Manager* in the electronic format and our members certainly enjoy reading many of the published articles, which give us a good insight into matters pertinent to education in the United States. Contrary to belief, we have similar problems and experiences here in the United Kingdom.

Through increased developments in e-mail, the website, and IT generally, the world continues to become a smaller place because of the improved global communication these developments bring us. Indeed, speaking to the APPA staff is no different than speaking to anyone in the United Kingdom—only the dreaded time zone dares to interfere.

In an article in the March/April *Facilities Manager*, Suzanne Healy aptly recognizes the need to “Enhance Skills through E-Learning” as a fundamental requirement for today’s facilities professionals in order to stay at the top of their field.

This is no different right now in the UK where the higher education sector is a busy place to be as it continues to expand in order to reach government recruitment targets, increase legislation, and improve efficiency. For facilities



managers working within such environments, this creates further challenges and pressures, and along with other problems such as tight revenue funding, the need for facilities managers to keep abreast of changes and trends and do more with less is greater than ever.

One way to keep ahead of the game is to maintain your knowledge base through CPD (Continued Professional Development) courses, seminars, or continued study of higher qualifications. This can involve time away from your desk and valuable time away from the workplace, which is often not what your employer wants. This is a bigger problem in the United States because of the great geographical distances of the country. An excellent example of continued development in practice is APPA’s Institute for Facilities Finance.

In the United Kingdom, we have recognized the need to continue learning but at the same time have found it difficult to take time from our jobs to do this. So what was our solution you ask? Well, luckily for us, we found the answer in the form of an MSc course in Facilities Management conducted by Leeds Metropolitan University. This course is delivered online to minimize time away from the workplace which keeps the boss happy too.

The course consists of seven taught modules and a three-module dissertation. It takes two years to complete. To access the online course material,

Leeds Metropolitan University uses what is known as WebCT site—WebCT consists of a single Virtual Learning Environment (VLE) and the software that resides on a server. It is designed to manage or administer various aspects of learning. Everything that is needed for the course is on this site. The modules are broken down into units and these can be saved, downloaded in word or pdf format, or printed out if needed. There is also a discussion board and a global calendar to can make sure that our work is handed in on time!

Each module has its own set of Web pages, with links to other sites, exercises and answer pages, additional reading, and journal links along with some past examples of exam papers and answers. Some of the course books can also be accessed through the website which can reduce course costs. One of these sites is Spons e-texts eBookstore, which allows you access to your book online for a limited period, ranging from 1 day to 6 months.

The only required attendance is for the introductory modules discussions and for exams. If you have difficulty in attending either of these, videos of the introductory modules can be sent and exams can be arranged for another time and place.

The course is certainly relevant to anyone in the facilities field. To be able to access the course information anytime, whether at work or home is a great asset and guarantees that work commitments will not be affected by anyone taking a course.

If you are interested, take a look at the course via the link on the Association of University Engineers website at www.aue.org.uk. Perhaps you might be the first APPA member to join the course! 🏰

David Corless is the deputy director of property services at the University of Bath and is also vice chairman of the Association of University Engineers. This is his first article for Facilities Manager, and he can be contacted at d.corless@aue.org.uk. Garry East is the deputy director of facilities at Leeds Metropolitan University and is the website coordinator of the Association of University Engineers. He can be contacted on g.east@aue.org.uk.



FINALLY A FIRE SPRINKLER SYSTEM THAT HELPS ME STAY ON SCHEDULE AND BUDGET IN ALL LIGHT HAZARD APPLICATIONS.

BLAZEMASTER® CPVC FIRE SPRINKLER SYSTEMS

Deadlines and budgets. Two of a design engineer's worst headaches. High-quality BlazeMaster CPVC fire sprinkler systems ease the burden of both.

That's because our systems install quicker and easier than metallic systems. No pre-fabrication, in addition to on-site alterations, save up to 50% in design time. Lightweight and flexible, CPVC systems deliver the performance you require without compromising safety. BlazeMaster CPVC systems meet the highest safety standards and are approved for use in all NFPA 13 Light Hazard applications.

Hotels. College dorms. Hospitals. High-rises. Wherever there is concern

for safety, BlazeMaster systems are there. In fact, we're listed for more applications than any other non-metallic system. And unlike metal, BlazeMaster CPVC pipes and fittings are virtually maintenance free and immune to Microbiologically Influenced Corrosion (MIC). Designed for a 50-year life expectancy, our sprinkler systems work for you long after many other competitive systems corrode away.

Fast. Reliable. Long lasting. Fully approved. And cost effective.

Call today for more information.
888-234-2436

www.blazemaster.com

Listed for more types of applications than any other non-metallic system.

NEW UL LISTINGS FOR BLAZEMASTER PIPE AND FITTINGS:

- Use with light hazard, quick response, extended coverage sprinklers in exposed applications with maximum head spacing 20' on pendent and 18' on sidewall
- Return air plenums per NFPA 90A
- Exposed system risers in accordance with NFPA 13D and 13R
- Exposed solid wood joists in NFPA 13D basement installations

BlazeMaster™

Membership Matters

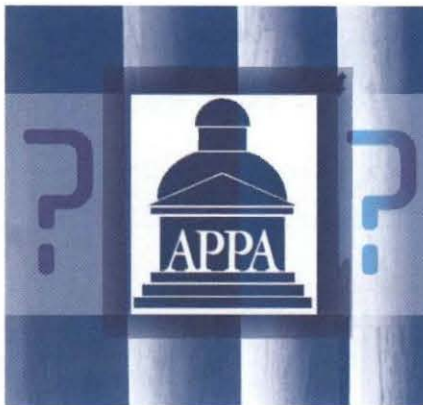
What is APPA? A Long-Time Member Responds

by Alan S. Bigger and Linda B. Bigger

A friend of mine asked me to consider attending a regional meeting of APPA with him in the 1980s. "What is APPA?" I asked him. He indicated that APPA was the Association of Physical Plant Administrators, and then he mentioned MAPPA. "What on earth is MAPPA?" I asked. He explained that MAPPA was the Midwest Association of Physical Plant Administrators, one of the regions of APPA that comprised a seven state area. I agreed to attend with him and now, nearly 20 years later, I am still attending MAPPA regional meetings and APPA's Educational Facilities Leadership Forum. What a rich and rewarding experience these meetings are for the institutional members as well as the business partners. I eagerly look forward to the regional meetings and have attended some outside the MAPPA region. A satisfied participant, I can attest to the high quality of educational sessions, the invaluable feedback from networking with industry professionals, and the tremendous camaraderie of meeting and sharing with peers.

In the November/December 2002 issue of *Facilities Manager*, Sarah Banick discussed the new effective and innovative practices awards program that celebrated its inaugural session in July 2002 at the Forum in Phoenix.

Alan B. Bigger is director, of building services at University of Notre Dame, Notre Dame, Indiana, and is APPA's vice president for professional affairs. He can be reached at alan.s.bigger.1@nd.edu. Linda B. Bigger is a freelance editor and can be reached at frugalperson@juno.com.



The cash awards for up to five institutions, of \$4,000 each, was and is underwritten by Sodexho. What a smash hit it was for the schools that won as well as for the members of APPA that joined together to celebrate

the achievements of the winners. We learned about Florida State University's facilities maintenance storefront partnership; California State University, Long Beach was recognized for an integrated facility information system, and the University of Miami won an award for the their facilities asset management program. The University of Missouri-Columbia from the "Show Me" state was recognized for an innovative method for volume purchases of bid document reproductions and distributions, and finally, the University of Oklahoma's Norman campus won an award for their physical plant evaluation system. All APPA members, all regional APPA members, and all shar-



GALE

Consulting Engineers

Engineered Solutions for Roofs, Walls, Windows, and Waterproofing.

Our Services Include:

- ▶ Condition Assessments
- ▶ Forensic Investigations
- ▶ Maintenance Plans and Budgeting
- ▶ Design Consultations
- ▶ Preparation of Design Documents
- ▶ Construction Period Services
- ▶ Construction Inspections
- ▶ Expert Testimony

Specialized Building Envelope Engineering Services for Educational Facilities Since 1964

Gale Associates, Inc.

1-800-366-1714
ejm@gainc.com

www.galeassociates.com

ing their knowledge and experience, free, with the entire membership—what a wonderful benefit for all! This year five more institutions were recognized at the Forum in Nashville this past July for their effective and innovative practices; Slippery Rock University, Emory University, American University, University of Florida, and University of Miami. Again, we as members can share in their celebration and we can also learn from their

award-winning practices by reviewing their accomplishments in this issue of *Facilities Manager* or at <http://www.appa.org>.

Regional and national membership in APPA places at our fingertips a wealth of information that is world class and that can be applied at both small and large institutions.

These tips and effective and innovative practices can be implemented at your institution, in most cases, with

Regional and national membership in APPA places at our fingertips a wealth of information that is world class and that can be applied at both small and large institutions.

minimal cost. Today, budgets are exceedingly tight and funds for consultants and travel are minimal. The gems of truth that can be gleaned from the awards programs can revolutionize your operation and facility without having to expend any consulting fees or travel funds.

However, regional membership is much more than just awards or even acquiring good ideas. It is a world class opportunity to build friendships, to support each other, and to grow together into world class organizations. What is APPA? APPA is a world class organization that positions facilities managers to be the best in their field. What is an APPA region? A region of APPA is a world class group of individuals that gathers together in a geographic region to assist each other and to help their institutions to be the best that they can be!

Each year, for the past few years, the world public has awaited with baited breath for the next volume of *Harry Potter*. As millions of others did, I received my copy of book number five on June 21, 2003—the book is read, completed, and on the shelf. A nice story, but now I am waiting for book number six. *Harry Potter* will come and go, but the knowledge acquired from regional and national membership in APPA will last a lifetime and beyond. Many items that we learn through our membership will last beyond our lifetime in the buildings that we build and maintain—buildings built, in part, with the mortar comprised of regional and national membership in APPA and the effective and innovative practices that we have learned from our peers and member institutions. 🏠

CUSTOM BUILT REPLACEMENT COILS



10 DAY SHIP

**Water, Steam, Evaporator
Condenser, and Booster Coils
Custom Built and Made-to-Fit
Field Measurement by Factory Trained Reps
Computerized Coil Selections
Quality Construction
ARI and ISO 9002 Certification
2 & 5 Days Expedited Shipments Available**

HEATCRAFT™

1-800-225-4328

www.heatcraftcp.com coils@heatcraft.com

Educational Facilities Leadership Forum 2003

The 2003 Forum held in Nashville was a huge success. An added value this year was the colocation of the meeting with the National Association of College and University Business Officers. Joint programming tracks for facilities finance, performance measures, and planning, design, and construction were developed for both the facilities and the business officer.

We take a look back at the Forum through the eyes of our photographer. We congratulate our membership, business partners, speakers, spouses, and guests for a job well done and hope that everyone learned a few things and had a great time.



And prepare to be lost.



But experience a unique environment



with friendly hosts



and an eager staff



with entertainment provided.



Everyone had a grand time.

Photos by Rhonda Hole



Breakfast of champions with "Minnie Pearl."



Opening the exhibit hall.



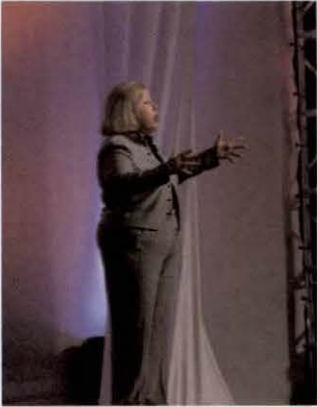
Everyone is eager to visit the exhibits.



One of the bigger draws of the exhibit hall were the fabulous lunches.

LEADERSHIP FORUM HIGHLIGHTS

Our General Session speakers inspired our attendees while sessions offering one of our three perspectives (customer service, information technology management, and environmental stewardship) provided them with valuable information.



Rosabeth Moss Kanter



Chuck Farnsworth



The Honorable Al Gore



President's Award

The President's Award is given to APPA members (both individuals and groups) who have demonstrated exceptional achievements in facilities management and who have made outstanding contributions to the association. Below Phil Cox awards the winners! (Absent: Robert Kelly).



2002-03 CFaR Advisory Council



Sam Polk



Supervisor's Toolkit Task Force

Pacesetter Award

This award is designed to further encourage participation in APPA among those who have already made significant contributions in their regions or chapters. Below, Alan Bigger, vice president for professional affairs, presents the award to the following individuals for their ongoing support and contributions.



Bigger, Robert J. Carter, Richard Robben accepting for J. Annette Bardouille, and Neal Swarnes.

Meritorious Service Award

APPA's highest individual honor is the Meritorious Service Award. Each year APPA presents this award to the individual member(s) who have made significant, life-long contributions to the profession of educational facilities management.



Alan S. Bigger



Edward D. Rice

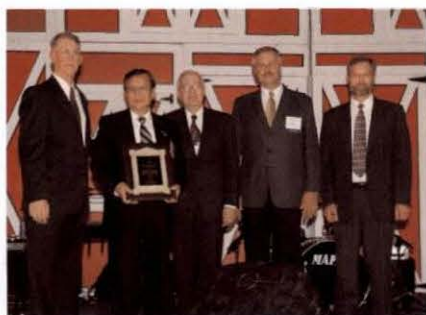
Rex Dillow

The Rex Dillow award is presented to the author(s) of the best article published in *Facilities Manager* during the previous calendar year. This year we congratulate Donald J. Guckert and Jeri Ripley King for their article in the May/June 2003 issue, "The High Cost of Building a Better University."



Award for Excellence

APPA's highest institutional honor is the Award for Excellence in Facilities Management. This award recognizes those educational institutions whose facilities management organizations have demonstrated excellence in overall operations and effectiveness.



Iowa State University of
Science and Technology



University of Maryland/Baltimore

Effective & Innovative Practices Award

This year's Effective & Innovative Practices Awards recognized programs and processes that enhanced service delivery, lower costs, increase productivity, improve customer service, generate revenue, or otherwise benefit the educational institution. This award is sponsored by Sodexho USA and was presented to the following universities.



American University for "Safety Alert Program"



Emory University for "Using Emory University's Building Acceptance–Occupancy Approval Checklist to Improve Turnover of Buildings from Construction to Maintenance and Operations at Occupancy"



Slippery Rock University for "Stockless Custodial Supply Chain"



University of Florida for "T.O.P.G.U.N. Journey to Customer Service Excellence"



University of Miami for "How the University of Miami's
 Reengineered Solid Waste Operation Produces
 \$140,000 in Annual Savings"

Eagle Award

The Eagle award is given to those individuals who on behalf of their company, have found additional ways to partner with APPA on projects and programs at various meetings. This award is given only when merited and is awarded this year to Ron Thompson of Eaton Cutler-Hammer.

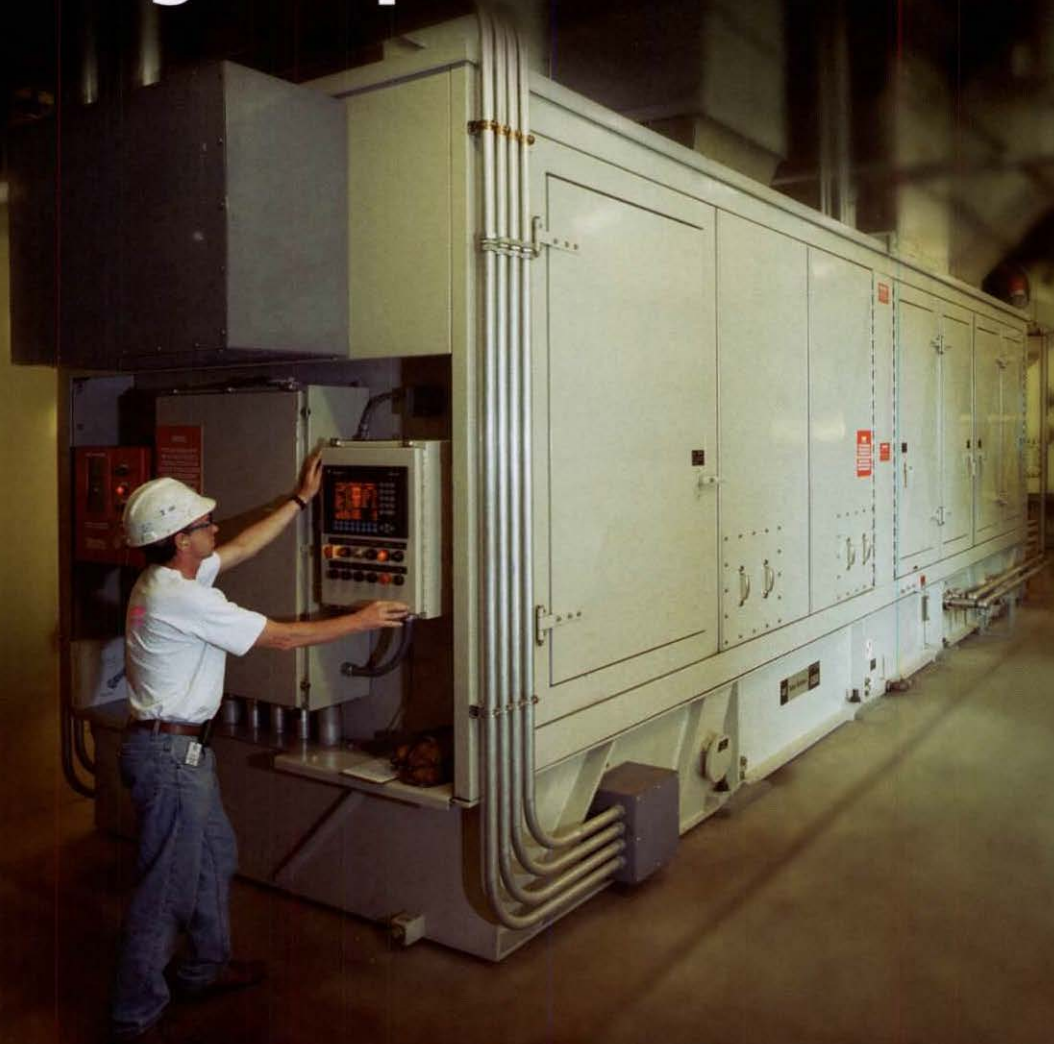


Individual Rising Star Award

The Individual Rising Star award is awarded to those individuals who are "up and comers" in the organization's eyes. This year the award was presented to Bob Brooks of Applied Management Engineering, Inc.



**It doesn't look like a bank, but it's
a great place to save money.**



Solar[®] turbines for power generation.

Solar turbine generator sets give you the power to save money. In today's energy markets, you need a reliable, cost-efficient power source. Whether you're generating combined heat and power for maximum energy efficiency, preparing for peak demand periods, or protecting against downtime, you can count on Solar Turbines.

With the latest pollution-prevention technology, Solar gas turbine generator sets provide clean, cost-saving solutions for your operation. And as part of our commitment, we offer a full range of support services, including maintenance, training, financing and complete turnkey operations.

So if you want to achieve the highest energy efficiency and the lowest emissions in a total solution, contact Solar Turbines. For more details about our money-saving systems, visit www.solarturbines.com or call (619) 544-5352.



Solar[®] Turbine

A Caterpillar Company

APPA's 2003 Business Partner Award Recipients—Exceeding Expectations

APPA's Business Partners are companies that provide products and services to the facilities management marketplace or have an interest in reaching facilities managers in the educational environment. There was an enormous amount of support this year from the Business Partners in their sponsorship, educational support, and individual projects throughout the year. The Business Partner Reception allowed us to say thank you to all those Business Partners who have collaborated with APPA during the past year. Below are the 2003 award recipients.

2003 Platinum Award Recipients



Applied Management Engineering, Inc.



Eaton Cutler-Hammer



Sodexo USA

2003 Gold Award Recipients



FAMIS



Johnson Controls, Inc.



Siemens Building Technology, Inc.

2003 Silver Award Recipients



*Lerch, Bates and Associates Inc.
Elevator Consulting Group*



Maximus

2003 Silver Award Recipients



ONDEO Nalco



Sebesta Blomberg & Associates



UNICCO

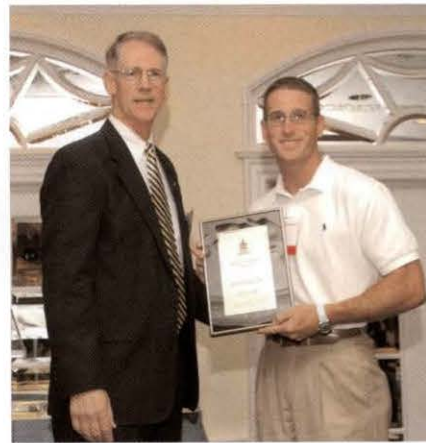
2003 Bronze Award Recipients



Gage-Babcock & Associates



ThyssenKrupp Elevators



TMA

Absent: ARAMARK

Staff Award



Mallory Thompson



Sam Polk

Charity

The mission of this year's charity, Edgehill Center, is to empower families and individuals by providing quality childcare, youth enrichment programs, parent education, and community services for low- and middle-income residents of the South Nashville area.

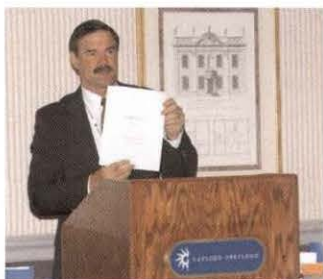


Just a few of the 200 items that were available at the silent auction.



Edgehill children welcomed hungry attendees as they made their way to the Welcome breakfast.

CFaR Unveiled at Business Partner Reception

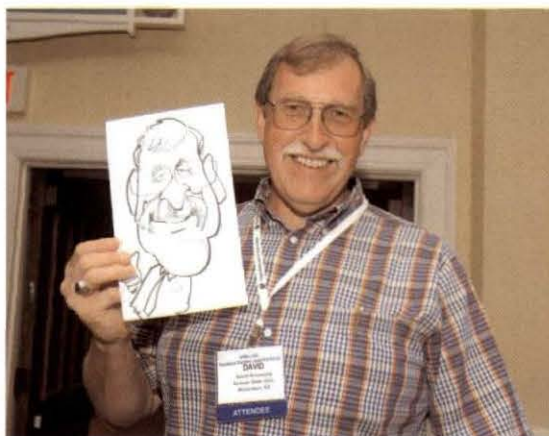


The Center for Facilities Research (CFaR) program is explained by Gary Reynolds and Maggie Kinnaman.



A Korean fan dance is performed by Chong-Hie Choi, APPA's director of finance and administration.

What's Going On in the Exhibit Hall?



Hey, does this really look like me?



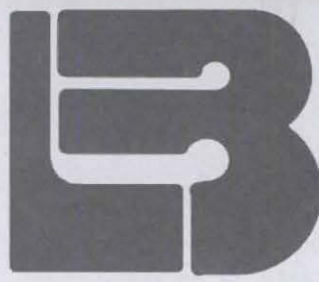
APPA's popular cyber cafe allowed members to keep in touch with home.



APPA's booth—the quiet before the storm.



And as usual, pin trading made a strong showing.



**Lerch, Bates & Associates Inc.
Elevator Consulting Group**

**WHEN IT COMES TO
ELEVATORS**

ROI = ROI

Your

Your

Return On Investment Equals Rate Of Involvement

- Victim of "Value Engineering"?
- Victim of "Poor Maintenance"?
- Victim of "One Sided Maintenance Contracts"?
- Victim of "Proprietary Modernizations"?

— GET INDEPENDENT ASSISTANCE —

**20 Offices In North America - Certified Inspectors
55th Anniversary**

For Information Call: (303) 795-7956

E Mail: busdev@lerchbates.com

Website: www.lerchbates.com

- Employee-Owned Firm - Equal Opportunity Employer -

Where were you when you weren't in sessions?



Cotrenia Aytch of APPA assists in publication sales.



Members check out APPA's new releases.



Break time . . .



Back to Business ...



2003-04 Board of Directors—Installation ceremony performed by Phil Cox.

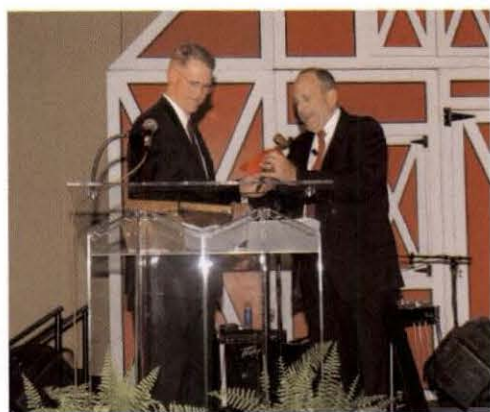
Our week together begins to wind down



Attendees enjoy their last chance to network at the banquet reception.



Phil is pumped!



The gavel is passed.



Marsha Cox is thanked for her hard work and support this past year.



And Phil is thanked for his service.



Edgehill receives a check from APPA.



A big round of applause for The Tim Watson Band, who stopped mid-song to pose.

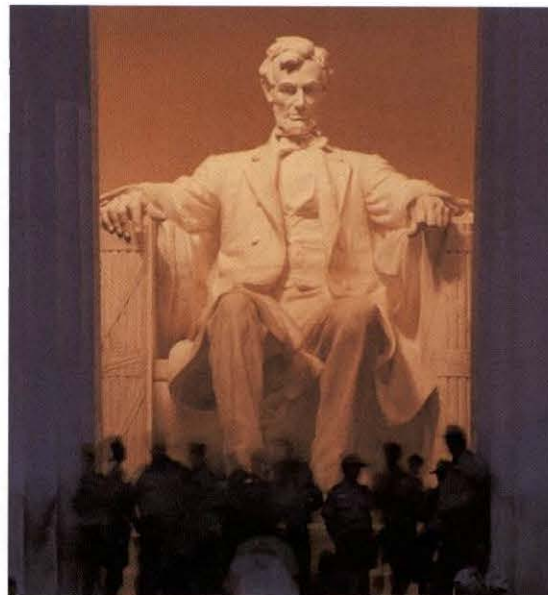


And our new, fiddle-playing president.

LEADERSHIP FORUM HIGHLIGHTS



*Washington, DC,
July 25-27, 2004—See you there!*



*Special Thanks to the following 2003 Educational Facilities
Leadership Forum sponsors:*

Platinum Level

*Applied Management Engineering, Inc.
Eaton Cutler-Hammer
Sodexo USA*

Gold Level

*FAMIS
Johnson Controls, Inc.
Siemens Building Technologies, Inc.*

Silver Level

*ARAMARK ServiceMaster
Lerch, Bates and Associates Inc. Elevator Consulting Group
Maximus
ONDEO-Nalco
Sebesta Blomberg
UNICCO*

Bronze Level

*Gage-Babcock & Associates, Incorporated
ThyssenKrupp Elevator
TMA*

Before you commit
to a heating system,
it pays to meet
the family.

A tradition of innovation
since 1949.

For more than five decades, AERCO has been the first to stand up with design breakthroughs and customer-focused innovations that have withstood the test of time.

We created the first tankless water heater — a standard in the industry. Our modulating and condensing gas-fired boiler established the high-efficiency category in the US more than 15 years ago. We were also the first to publish part-load efficiencies, and today, they're still the best indicators of real-world performance.

No one is more passionate
about heating efficiency.

Our engineers are obsessed with enhancing the performance of your total heating system. The unmatched 20:1 turndown of our gas-fired Benchmark boilers and their condensing design deliver up to 98% energy efficiency, while minimizing the size and cost of heating-loop components. And our advanced controls are designed to integrate seamlessly with today's building automation systems.



Have your cake and eat it too:
performance and cost savings.



Innovative engineering also keeps our water heaters and boilers easy to install and maintain. Our line of indirect-fired equipment, for example, leverages a self-descaling, helical coil design that creates more usable heat and reduces maintenance costs ... all at the same time. It's the perfect marriage of performance and efficiency.

Get the facts on high
efficiency heating.

Find out why so many customers remain faithful to AERCO. To get your FREE "Fuel Saving Innovations" booklet, call 1-800-526-0288 ext. 242, or visit www.aerco.com/fm

Fuel Saving
Innovations

AERCO
Heat You Can Bank On

AERCO
Heat You Can Bank On

Copyright 2003 AERCO International, Inc.



Choosing to Stay Hungry

A Profile of President Brooks Baker

By Alan Dessoiff

Raised on the same farm in Warrior, Alabama where he lives now, Brooks H. Baker III became well grounded early in his life on what it takes to achieve success. "You learn a lot of good stuff growing up in the country with nobody around to talk to except farmers and small-town folk," says Baker, associate vice president for facilities at the University of Alabama at Birmingham (UAB).

One lesson came from a friend, who told Baker one day, "Brooks, you have to stay hungry" to become successful. Baker took the advice to heart and says "Stay Hungry" will be the core of his agenda as APPA's new President.

"Being hungry equates to never letting yourself get into a position of being satisfied or complacent," Baker explains. "It also means having an intense sense of pleasure when you are reaching for a goal. As with our appetite for food, staying

hungry in other ways can bring tremendous satisfaction when you begin to satisfy that hunger.

"You must learn to stay hungry in all areas of your life, especially physically, mentally, spiritually, and in your career. My goal will be to encourage our membership to stay hungry."

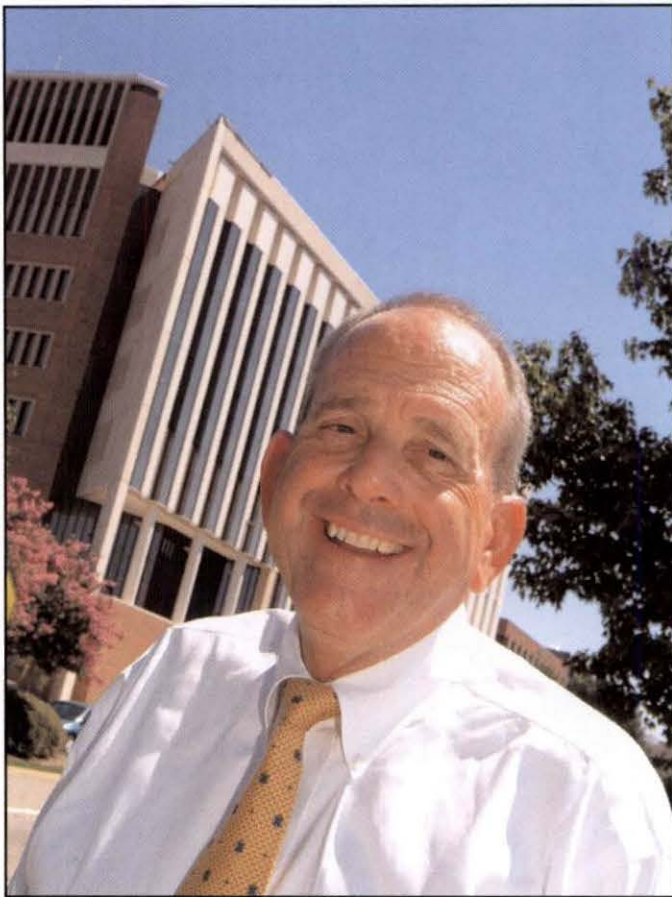
Career development for APPA members is one area that Baker says he will emphasize. He uses another farm analogy to describe what he means: "Back on that farm, we cleared a lot of trees to get more ground for growing crops. We used axes and chain saws to do the cutting. Occasionally, the saw or axe would get dull and we had to make the decision—do I keep on cutting wood or stop and sharpen my axe? In our careers, we have the same dilemma: Am I too busy chopping wood to stop and sharpen my axe? We must keep educating and motivating ourselves to be innovative, energetic, and effective, and APPA is here to help in that regard."

APPA as an association also must stay hungry to be successful, and that means having the support of its members, Baker says. "We are seeing our institutional membership inch downward. To turn that around, we need our members to re-

Alan Dessoiff is a freelance writer who has interviewed many APPA presidents for Facilities Manager. He is based in Bethesda, Maryland and can be reached at dessoiff@erols.com.

Photos by Steve Wood, University of Alabama at Birmingham

Above: Concert hall in the Alys Robinson Stephens Performing Arts Center



Volker Hall which houses the School of Medicine Educational Tower

cruit our counterparts in nonmember institutions to become members.”

He calls for a “grassroots membership” effort and cites another farm experience from his youth. “We have a type of Bermuda grass in Alabama that has roots that can go four or five feet deep. We would plow and plow, thinking we had rid ourselves of the grass, but guess what? It would spring back after the first rain and grow through the fields.” Similarly, at APPA, “we have membership roots that we can call on to bolster the association and help us move forward to new records in membership this year.”

Also, “as an association, we need to be sure that we aim our services at the typical member institution, not just large institutions or those members who have been fully engaged and involved in APPA for years. The small institution or member new to our industry must be able to plug into what this great association is and be able to grow rapidly through the use of the tools we offer.”

“APPA is a strong player in the facilities arena and will continue to provide value to its members,” Baker continues. “One of its strengths is its wonderful staff and another is its vice presidents. They are the ones who do all the work and make things happen.”

Baker says APPA has a particularly strong role to play these days because of economic stresses the facilities management

industry is experiencing. “The industry is being pressured in most of our states to continue to provide quality services to our customers—faculty, staff, students, patients—while decreasing our budgets for operations,” he says.

“In times of budget crisis and other difficulties, most executives in the facilities business realize that cutting off communication to the larger pool of resources provided by APPA and its members is not a wise decision,” Baker asserts. But it is more difficult, he acknowledges, “to convince our bosses that maintaining APPA membership and dialogue with peers in our industry is critical for becoming more effective and efficient.”

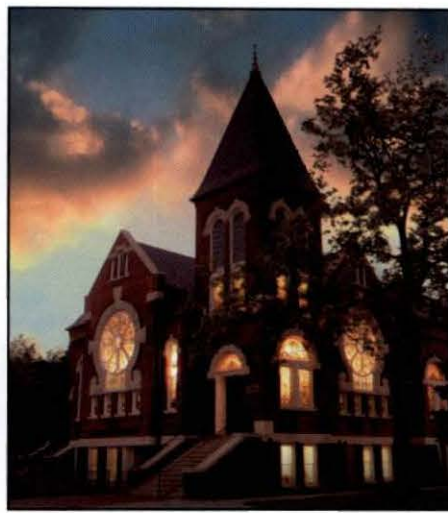
Funding for travel to APPA educational programs “is often a source of conflict when budgets may not be able to provide the bare necessities,” Baker says. But APPA’s Educational Forum and other programs “are undoubtedly the most intense and power-packed events available to facilities managers. Our task is to help these managers convince their bosses that a ban on travel for educational purposes must be weighed against the value received for that travel expense. In every case, the cost of APPA programs surpasses the expense of attendance.”

In his own state, Baker relates, “we have been fortunate to escape some of the drastic budget cuts, but this year we are looking at a 6 percent cut in state funding, which will translate to cuts in facilities budgets. That means some services may have to be cut back.”

At UAB, the cost of maintenance is less than half what it was in the 1980s, Baker says. “Our first approach as we began to get squeezed was to reduce management staff. That worked for a few years, but when we had reduced managers to the minimum level possible, we began to look for other ways to economize.”



One of the two log cabins located on the farm in Warrior



(left to right) S. Richardson Hill University Center, Spencer Honors House, Engineering Complex

Technology advances in housekeeping and maintenance have improved efficiency in those areas but budget reductions demanded more. "Reluctantly, we began to reduce the level of service provided by the various facilities-related departments. I am sure this is a common scenario among colleges, universities, and medical centers across this country and others," Baker states.

Baker also wants APPA to become more of an advocate on code issues related to facilities design, construction, and operations. "The association will work in the various code-making bodies to have an impact on what these various codes require us to do," Baker says. As an example, he cites the codes established by the National Fire Protection Association (NFPA). These are "consensus codes," Baker says, which means APPA members "have the opportunity to have input and vote" on them. "Helping to bring common sense" to these and other code requirements "can have an impact of millions of dollars annually in our industry."

Baker is recognized for his expertise in the fire protection and life safety arena and has been involved in NFPA for many years. Among his achievements at UAB, Baker lobbied NFPA to remove "overly burdensome" code requirements, resulting in savings of millions of dollars annually in healthcare and higher education.

Baker has spent his entire career in his native state. Following early experience as a plant engineer and then a superintendent at Phifer Wire Products in Tuscaloosa, he joined the UAB facilities staff as a maintenance engineer in 1979. He was promoted the next year to director of hospital maintenance, then to executive director of facilities management. In 1995 he became assistant vice president for operations. He has been associate vice president for facilities since 1997.

The two senior positions are similar in their roles and responsibilities, which include facilities planning, design, and management of maintenance, janitorial services, energy, and grounds and landscaping; design and construction of capital

projects; in-house design and construction up to \$1 million per project; facilities standards and code compliance; and occupational health and safety. Baker has managed operational budgets of more than \$79 million annually; managed the design and construction of projects totaling \$400 million over six years; implemented numerous large computer systems; and implemented Total Quality Management (TQM) within the Facilities Division, resulting in substantial improvements in customer as well as employee satisfaction, even during periods of economic stress.

Baker is particularly proud to be associated with several major construction projects that have been completed in recent years. He cites one underway now—a new 14-story biomedical research building that he says will be "a jewel" for the university.

Baker authored and assisted in lobbying for passage in the state legislature of a measure to allow the use of owner-controlled insurance programs (OPIC) in state entities. He designed and implemented an OPIC for capital construction projects that will save UAB \$7 million over five years.

To evaluate the cost and effectiveness of facilities departments, Baker benchmarked against outside companies such as Trammel Crow, ServiceMaster, and Johnson Controls. But all facilities functions remain in-house at UAB "because of the excellent cost and performance comparisons," Baker says.

Baker started an apprentice program at the university that graduates air conditioning mechanics, plumbers, electricians, and others each year. He also encouraged professional development among facilities management staff. As a result, several employees received college degrees and MBAs.

One of them was Baker himself. Already the holder of a Bachelor of Science degree in mechanical engineering that he received in 1971 from the University of Alabama, Baker went back to school, this time to Vanderbilt University, where he earned a Master of Business Administration degree, with honors, in 1997—at the age of 48. "I got the Methuselah award," he says.



An outside view of the Alys Robinson Stephens Performing Arts Center

He is not finished yet. He is preparing his dissertation to complete work on a Ph.D. in civil and environmental health engineering at UAB. He also has completed architectural design courses at Harvard, the APPA Executive Development Institute at Notre Dame, and numerous other continuing education courses.

In addition to his service on APPA's Board of Directors, Baker has been involved extensively in other professional organizations. He is a Past President of the Southern Regional Association of Physical Plant Administrators.

"Brooks is an excellent manager. He is organized, he listens, he delegates, he is very interactive. He doesn't just sit in his office; he is out in the field," says his boss, Richard Margison, vice president for financial affairs and administration at UAB. "He is a dedicated and decisive leader who leads by example. During these tough fiscal times we all face in higher education, it's getting more challenging to keep our aging physical plants operating with fewer dollars, and he is doing a great job of that."

"His real strength is dealing with people. He has books on how to manage people, help people develop. And he practices all those ideas," adds one of Baker's employees, Jim James, executive director of facilities planning and design and university architect at UAB.

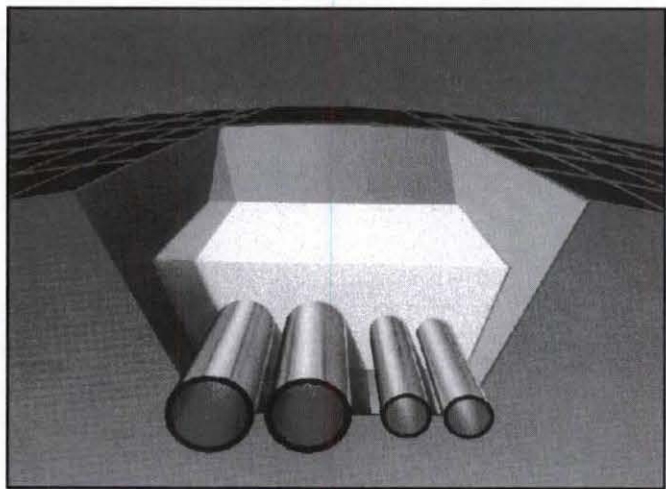
Baker relates just about everything about his career and life's experiences to his 250-acre farm in Warrior, where he grew up. "Farming the land has always been a joy of mine," he says. He moved away for 15 years and says he and his wife, Virginia, and their three children lived comfortably in a well-to-do urban neighborhood in Tuscaloosa. But he decided that "I didn't want to raise my kids that way. I wanted them to learn to work for everything they got and see what it was like to live off the land." For that reason and because of the illnesses of his father and father-in-law, he "quit a good job" at Phifer Wire Products, went to work at UAB, and moved his family back to the farm.

The Name That Started It All! **GILSULATE® 500XR**

Providing Superior Quality Since 1949

**Thermal Insulation & Protection
System for Underground Pipes
& Tanks at 35°F to 800°F**

- ♦ District Heating & Cooling
 - ♦ Cogeneration
- ♦ Retrofit Existing Systems
 - ♦ New Construction
 - ♦ Hydrophobic
 - ♦ Load Bearing
- ♦ Simplified Installation

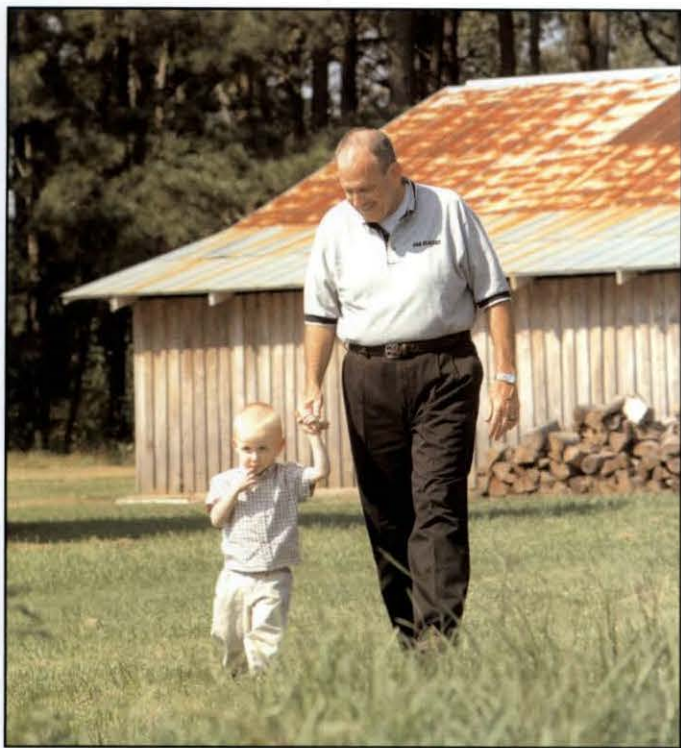


If You Can Stand On It, You Can Backfill It!

For complete material & design assistance visit our website

at www.gilsulateatp.com or contact:

American Thermal Products ~ 3371 Bonita Beach Road ~ Bonita Springs, FL 34134 ~ 800-833-3881 ~ Fax 941-992-9152



Brooks with his grandson Benjamin on the farm in Warrior

The children are away now, pursuing their own educational and career goals. The youngest, son Hop, is studying horticulture at Auburn University "so he can keep on farming," his father says. With Hop's help, Baker raises hay and up to 150 head of cattle on the farm. In a garden they grow okra, corn, beans, watermelon, tomatoes, and peppers. Baker also enjoys quail and deer hunting and bass fishing on several beautiful lakes in the area.

While his professional goal at APPA is to encourage the association's membership to stay hungry, Baker says his personal goal is to stay hungry in every aspect of his life. Physically, he has been a runner most of his life. Before sustaining an ankle injury last December, he had been running four to six miles a day, up to a high of 40 miles in one week. He says President George Bush, who also runs, "is my hero" in terms of staying hungry physically.

For Fathers Day in 2000, his wife bought Baker an 1860 log cabin located far back in the Alabama woods. They disassembled it and moved it to the farm, then began restoring it. A Creek Indian friend who was helping ran across an even older 1826 cabin that was about to be torn down to allow construction of a shopping center. Baker bought that cabin's logs and with his friend and their sons put them back together next to the 1860 cabin, adding such modern features as a kitchen and bath, central heat, and air conditioning. The cabins "have become a real labor of love for us," Baker says.

Whether he is restoring old log cabins or building a state-of-the-art 14-story biomedical research center, Baker finds that staying hungry helps him achieve success, just as his friend told him it would. 🏠

*For pollution abatement
and odor control
(quietly)...*

Tri-Stack ROOF EXHAUST SYSTEMS



**Tall stacks are good, but
Tri-Stacks™ are best!**



**Low profile, quiet solutions
for roof exhaust problems
for laboratory workstations
and industrial processing**

- **Prevent re-entrainment**
- **Eliminate odor**
- **Reduce noise at the property line**
- **Comply with architectural/aesthetic ordinances**
- **Lower energy costs**

Tri-Stack systems are ideal for new construction and direct replacement of conventional centrifugal exhaust fans. Tri-Stack systems feature unique design, high efficiency operation for lower system static pressure, reduced energy costs and provide two-year payback in most installations. Tri-Stacks are also virtually maintenance free, operating continuously — without periodic maintenance — for years under normal conditions. Contact us today for full technical details or to discuss your application.



First we invented the technology.
Then we perfected it.

**Strobic Air
Corporation**

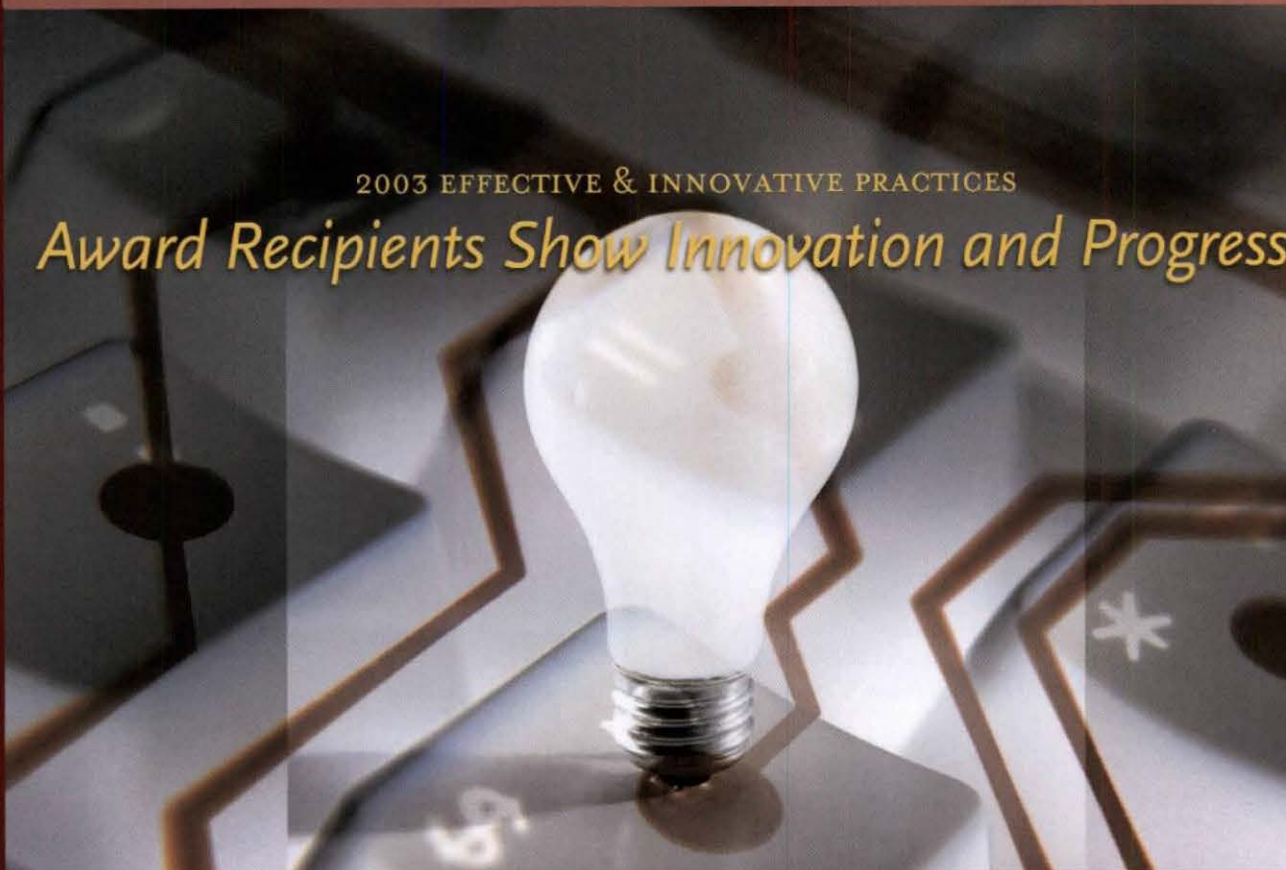
160 Cassell Road
P.O. Box 144
Harleysville, PA 19438
Tel: 1-215-723-4700
Tel: 1-800-SAC-FANS
Fax: 1-215-723-7401



For design/applications tips, visit our web site: www.strobicair.com
www.met-pro.com/strobic.html • E-mail: tristack@strobicair.com

2003 EFFECTIVE & INNOVATIVE PRACTICES

Award Recipients Show Innovation and Progress



Following are descriptions of the five institutional recipients of APPA's 2003 Effective & Innovative Practices Award. This award recognizes programs and processes that enhance service delivery, lower costs, increase productivity, improve customer service, generate revenue, or otherwise benefit the educational institution. Entries can describe either a new program or significant restructuring of an existing program or process.

Up to five submissions are eligible each year for a cash award of \$4,000, which is generously sponsored by Sodexo USA. The Professional Affairs Committee selects the winning entries based on a point system. There were 13 entries this year from 10 schools, and these five successful institutions received special recognition, and a check, at APPA's Educational Facilities Leadership Forum in Nashville.

The deadline for the 2004 Effective & Innovative Practices Award is January 31, 2004. For more information or to retrieve the award application, please visit www.appa.org/recognition/effectiveandinnovativepractices.cfm.



AMERICAN UNIVERSITY

W A S H I N G T O N , D C

Safety Alert Program

by Michael Griffin and William G. Suter

Institutional Benefits

The purpose of the Safety Alert Program was to enhance awareness and protect American University Physical Plant staff and contractors during the performance of routine, preventive maintenance and emergency tasks in mechanical and electrical rooms. The program supported in-house staff and contractors in four major areas: safety awareness, equipment labeling, training, and information accessibility.

The following are specific benefits:

1. The drawings explained basic safety awareness for each location.
2. The drawings showed the mechanical and electrical equipment in a spatial relationship to the room.
3. The drawings showed specific locations for controlling of electrical and mechanical equipment.
4. Tables of mechanical equipment showing name, type, function, and closest disconnect.
5. The relabeling of all associated equipment (such as the piece of equipment and its electrical disconnect).
6. The new numbering scheme shows the type, location, and sequential number by the floor where the equipment is located.

Innovation, Creativity and Originality

We are not aware of a Safety Alert program anywhere with the purpose of notifying workers of the safety concerns in a mechanical/electrical room and about useful information for that particular room. Prior to the development of our Safety Alert Program, personnel learned to understand mechanical spaces by either word-of-mouth training, browsing through drawings, or the old standby of physically searching the mechanical space for equipment.

We believe that our approach to this effort has resulted in a powerful tool to visually inform in-house staff and contractors about the possible hazards and equipment relationships in the mechanical/electrical rooms.

Portability and Sustainability

The Safety Alert Program can be adapted for use by any institution. The following list shows each of the general steps in the process:

1. Design an equipment-labeling scheme that is consistent for all users.
- Label the equipment with a numbering system that is simple and can be remembered and used by the workforce.

- Show the equipment type, floor location, and sequential number by the floor where it is located.
2. Survey, identify, label, and verify locations of existing equipment disconnects.
- Add new equipment and delete missing equipment from the database.
- Label the motor control centers and local disconnects for each piece of equipment with the same label as the equipment it controls.
3. List safety concerns for each mechanical/electrical room.
- Identify the general hazards and environmental concerns.
- Identify problems that should raise the workers safety awareness.

Instituting the following procedures will sustain the integrity and usability of the Safety Alert Program:

- Capture all equipment replacements and projects that include new equipment in mechanical/electrical rooms.
- Check safety alert drawings for correctness during preventive maintenance procedures on equipment.
- Check for new equipment during project closeout procedures.
- Update the Safety Alert drawings with any new information.

Management Commitment and Employee Involvement

The program began by utilizing part-time personnel but the pace of this approach was unacceptable and the project tended to get bumped by things that were perceived to be more urgent. Resources to accomplish what amounted to a complex project were made available through the adjustment of priorities and the rescheduling of other important work. This would not have been possible without strong support from the management of the department.

Due to the large commitment of time for our field staff, we had a mechanical contractor dedicate one HVAC mechanic to verify mechanical equipment for each motor control center and all disconnects plus relabeling of this equipment. We also used an engineering firm to draft our drawings. Both of these tasks were beyond our in-house capabilities, but the in-house staff was deeply connected with this activity.

This project was one part of a broad effort to make American University a safer work environment. During the draft process for each set of drawings, management and building personnel studied the drawings. They were reviewed by the same HVAC mechanic who identified and relabeled our equipment.

Documentation, Analysis, Benchmarking, and Customer Input

There have been no major accidents in our mechanical/electrical rooms since the inception of the Safety Alert Program and we are confident that the overall university safety program and the Safety Alert Program were responsible for our excellent record and our accident free environment.

The final product for each mechanical space was a drawing showing the general layout of each mechanical/electrical room. In the final analysis:

- The drawings showed equipment locations in relation to other equipment and identified their new CMMS numbers and any associated motor control centers or disconnects.
- The drawings depicted the motor control centers with the labels for each piece of equipment shown on the front of the motor control center panels.
- The drawings identified all general hazards in each room, such as electrical or asbestos.
- We began with three nonintegrated numbering schemes and ended with one numbering scheme that included 100 percent of all the equipment in our mechanical spaces.
- We labeled a total of 2,621 pieces of equipment.
- With the information collected in the survey we added over 300 pieces of equipment to our inventory and removed over 75 pieces of equipment, no longer in service.

Finishing this project established the baseline and benchmark of having all of our equipment identified properly in our CMMS and BAS systems.

The ultimate customer was the in-house staff and contractors working in our mechanical/electrical rooms. This broad customer base was involved in the design of the drawings, the development of the equipment-labeling scheme and the collection of information about the equipment and layouts in the drawings. As we moved through the first couple of buildings, we learned what the right mix of external contract resource and in-house resources would be. This allowed in-house staff to complete routine operation and maintenance activities and still have their input.

Michael Griffin is the capital renewal/deferred maintenance manager at American University, Washington, D.C. This is his first article for Facilities Manager, and he can be reached at mgriffi@american.edu. Willy Suter is AU's director of physical plant operations and can be reached at wsuter@american.edu.



EMORY
UNIVERSITY

Using Emory University's Building Acceptance–Occupancy Approval Checklist to Improve Turnover of Buildings from Construction to Maintenance and Operations at Occupancy

by Robert S. Hascall

Institutional Benefits

The focus of the Checklist is to improve the quality of new buildings or major renovations and the transition of those spaces from construction to building occupancy and maintenance.

Specific benefits to the institution include the following.

- The maintenance/operations staff visit the project multiple times during construction and become familiar with the building and its utility systems before they are concealed with finishes.
- By spending time with the maintenance/operations staff during construction, the project management staff gain experience in issues that improve serviceability of building systems.
- Maintenance/operations staff become more familiar with the building which enables them to resolve building problems more quickly.
- Construction is inspected from a maintenance and operations perspective leading to improvements in accessibility of equipment, valves, filters, balancing dampers, etc.
- Maintenance/operations staff are trained on the building systems and their operation months before building occupancy occurs.
- Operations and maintenance manuals and preliminary as-built drawings are received before the buildings are occupied.
- Building problems are avoided during construction that might otherwise lead to difficulty maintaining the facility.
- The architect, contractors, subcontractors, and owner's project team understand what is required of them in the construction closeout process and when it is required so that systematic completion is achieved and accountability for that outcome is in place.

Innovation, Creativity, and Originality

Many institutions have developed building closeout checklists. However, none that we reviewed were as comprehensive as the Emory Checklist. We believe our Checklist is innovative in its comprehensive nature and creative in that it provides requirements for when each task is to begin and who is responsible to participate in it. Many tasks, such as periodic

inspections by the maintenance/operations staff, are ongoing throughout the construction process.

All capital projects' Request for Proposals as well as associated contracts for design and construction services include the Checklist as a requirement. Examples of items that differentiate the Emory Checklist from others include the following:

- The master Checklist identifies 129 separate checkpoints for the FM Project Manager to coordinate activities. It includes involvement from eight separate departments within maintenance and operations. Other Emory departments involved and listed included Emory police, fire safety, environmental health and safety, network communications, risk management, and resource planning.
- The Checklist is complimented by a definitions document that provides explanation and insight into each requirement.
- The checklist provides the contractor, architect, and owner a clear picture of what will be expected of each party in the turnover process.

Portability and Sustainability

The Building Occupancy and Closeout Checklist is both portable and sustainable as it can be easily adapted and used by other institutions.

- The Checklist is a Microsoft Excel spreadsheet that is adaptable to individual institutional needs with minimal technical effort.
- The Checklist is complimented by a detailed summary of definitions developed in Microsoft Word, which provides more detailed background information on each Checklist item.
- The Checklist and definitions documents are available to anyone as PDF files on Emory University's Facilities Management website as shown below. Copies of the Excel and Word document files can be obtained by making a request to the Senior Associate Vice President for Facilities Management at Emory University.
- Web links to the Checklist and definitions documents are as follows:
Checklist Link - http://www.emory.edu/FMD/web/emory-std/frontend/building_closeout_checklist.pdf
Definitions Link - http://www.emory.edu/FMD/web/emory-std/frontend/building_closeout_definitions.pdf
- Modifications to the Checklist are encouraged and expected as this is viewed as a living document that will change over time. Changes to the list are easy to make, and are critical to making the tool work optimally.

Management Commitment and Employee Involvement

Demonstration of Management Commitment:

- The Senior Associate Vice President for Facilities Management requires that the Checklist be used on all major capital projects. The Directors of Maintenance/Operations and Project Management and Construction are held

accountable for ensuring that the Checklist is integrated into these projects accordingly.

- The Checklist is included in Emory's Design Guidelines.
- The Checklist is included in all requests for proposals and contracts for design and construction of capital projects.

Demonstration of Employee Involvement:

- The master Checklist involves 129 separate checkpoints for activities that the Facilities Management Project Manager needs to coordinate within Emory and FM. It includes involvement from eight separate departments within PO. Other Emory departments involved and listed included Emory police, environmental health and safety, network communications, risk management and resource planning.
- During construction visits by management & operations personnel, other Emory units assist in identifying and correcting construction related issues. This feedback is documented to identify actions taken thus promoting and encouraging involvement at future stages and on future projects. Personnel are aware that their input has meaning and improves the process.

Documentation, Analysis, Customer Input, and Benchmarking

Facilities Management has been using the Checklist for two years. During this time we have completed three major capital construction projects using the checklist. Improvements based on lessons learned have been incorporated into each project. The process of building turnover and acceptance is improving with each project as our experience base grows and our staff learn more about the processes. The project manager for the last project that used the Checklist consults the project manager for the next project for improvements. Training of the maintenance/operations staff occurs before building occupancy or the contractor continues to maintain the facility after occupancy. This provides incentive for the contractor to complete training early.

The maintenance & operations manuals are required to be finished before occupancy. This requirement has been substantially met on projects using the Checklist thus far. Contractors now provide a progress set of as-built drawings at building occupancy while the final as-built drawings are being completed. Since implementing the Checklist, as-built drawings has been typically received within 60 days of building occupancy. 🏢

Bob Hascall is the senior vice president for facilities management at Emory University, Atlanta, Georgia; he can be reached at bhascal@fmd.emory.edu. This is his first article for Facilities Manager.

Stockless Custodial Supply Chain

by Michael Kukawa

The facilities & planning department of Slippery Rock University implemented a stockless supply chain system for all operational custodial supplies. Through a Request for Proposal process, run through the university purchasing department, a single vendor was selected to provide our custodial supplies. In addition, the vendor would deliver these supplies directly to the point of use. Existing university inventory was bought back by the selected vendor. Each order/delivery would be specific to an individual office or academic building. The supplies are ordered and delivered on a biweekly schedule. Custodial supplies were removed from our general inventory.

The replenishment process for custodial supplies was significantly streamlined and simplified. The number of staff hours assigned to the process was reduced. The number of departments involved in the process was reduced. The inventory value was reduced. The number of purchase orders processed decreased, and the number of vendors was reduced while available warehouse space was increased. Custodial products were standardized across campus.

This process was accomplished with both an annual cost savings and an increase in the service provided to our stakeholders. By selecting a single vendor and standardizing our products, we were able to reduce our annual expenditure on custodial supplies by over \$13,000.

Our previous process contained three distinct sub-processes with a total of 43 steps. The new process has been streamlined into a single seven-step process. A process that once involved four separate university departments now involves only one.

One hundred two custodial items were removed from general inventory at a value of \$21,285. This increased the available warehouse space by 1,500 square feet.

Our process enabled the custodial department to standardize its operational supplies. The total number of custodial products used in fiscal year 2001 totaled 149. The current number of custodial products being used is 107.

The number of purchase orders for custodial supplies has been reduced from 53 in fiscal year 2001 to two blanket orders for fiscal year 2002. Ten separate vendors were used in fiscal year 2001 for custodial supplies; one vendor is now used.

The number of orders generated by the custodians for replenishment of their supplies decreased. In fiscal year 2001,

762 orders were sent to Central Stores. For fiscal year 2002, we are on pace to send only 474 orders to our vendor for stockless replenishment.

Workhours spent on picking and delivering custodial supplies out of inventory has been eliminated. Central Stores spent 199 hours in fiscal year 2001 picking custodial orders. This department now spends zero hours for this task. Central Stores and the labor crew spent 264.5 staff-hours in fiscal year 2001 delivering custodial supplies. These departments now spend zero hours for this task.

We have benchmarked our initiative through a survey of 35 APPA-affiliated institutions throughout Pennsylvania. Our survey results indicate that only one institution has adopted a similar initiative.

Our current vendor has 8,500 total customers, 825 of which are in education. No other client of theirs is using a stockless re-supply system for custodial supplies. The level of innovation, creativity, and originality is best demonstrated by the fact that our vendor is now using our initiative as a marketing tool.

The true mark of portability and sustainability lies in the simplicity of the initiative. There are only two basic requirements for our initiative:

1. A group willing to commit the time for the design and evaluation process.
2. A responsive vendor willing and able to deliver supplies in the preferred units of measure to individual locations providing overall savings to the university.

This initiative has only one cost—the hours invested in the design, evaluation, and implementation process. Our initiative showed a positive impact on price and labor savings. Another institution undertaking this initiative may not demonstrate a dramatic price savings. Any institution will save on workhours by transferring the labor-intensive supply chain process to a vendor.

Various levels of management and staff were involved in all phases of our initiative. Custodians, first-line supervisors, directors, and vice presidents all had a hand in developing our process.

The facilities & planning department determines the success of a new process or initiative by the alignment of the initiative with the following University Strategic Goal.

University Strategic Goal/Initiative

Stewardship: Identify, assess, and continuously improve those procedures, services, and best practices which will optimize the University's environment and productivity through the most efficient use and development of its resources.

We monitor our initiative by budget review by management to ensure we are maintaining our cost savings; custodial meetings to pass along to management any information regarding product or service; and by weekly status meetings held with the vendor representative. We also monitor service

issues, such as fill rates, product quality, and delivery routing, while constantly investigating and evaluating new products.

The facilities & planning department has charged a team with the administration of our initiative. This team meets regularly to evaluate products, pricing, vendor performance, and suggestions or proposals from stakeholders. In an effort to continuously improve our initiative, any stakeholder may propose new products or practices. The team meets to analyze pricing, performance, and impact to our initiative. This team also handles feedback from stakeholders on performance issues. The success of our initiative is driven by the design of our Request for Proposal. This team is responsible for alterations and improvements of future Request for Proposal documents at contract renewal time. These improvements to the Request for Proposal will be driven by the team's successful efforts to analyze pricing, to incorporate stakeholder feedback/suggestions, to analyze vendor performance, and to guarantee stakeholder participation. 🏢

Mike Kukawa is the director of campus services at Slippery Rock University, Slippery Rock, Pennsylvania, and he can be reached at michael.kukawa@sru.edu. This is his first article for Facilities Manager.



UNIVERSITY OF FLORIDA

T.O.P.G.U.N. Customer Service

by Jean M. Sweitzer

Institutional Benefits of T.O.P.G.U.N. Customer Service Training

The University of Florida Physical Plant Division (PPD) is keenly aware that faculty, staff, and students have expectations for service delivery that we are responsible for meeting. Customer service is one of our most important responsibilities on campus. Data obtained from annual customer surveys was used to identify gaps in service and to develop corresponding service standards and training. Each employee at PPD attended a two-hour basic training (ground school) and a one-hour refresher training (preflight check-off/takeoff). Both classes are highly interactive, focused on improving customer service skills. Institutional benefits include:

- 1) Improved customer satisfaction levels and loyalty measures;
- 2) Increased employee commitment to customer service delivery;
- 3) Increased empowerment of employees through improvement in customer service skills;
- 4) High employee satisfaction with training;

- 5) Improved service levels recognized by customers;
- 6) Increased willingness to assist other team members in meeting customer needs, as well as a greater inclination to work directly with the customers;
- 7) Focused training on specific areas identified by customers, and tailored to facilities maintenance topics;
- 8) Avoided cost of \$68,310 through in-house design and delivery.

What Makes the T.O.P.G.U.N. Customer Service Training Innovative, Creative, and Original?

T.O.P.G.U.N. was created through a team effort. The T.O.P.G.U.N. acronym represents aspects of customer service that are most important in accomplishing our mission of creating and maintaining university facilities. The letters stand for Team, Own, Prompt, Greet, Understand, and No-no's. While original in its application to our organization's customers, it incorporates general customer service information that could be used in any organization. The fun, innovative design of T.O.P.G.U.N. training is unique and includes:

- 1) Video snippets that used PPD employees to demonstrate good and poor examples of customer service.
- 2) Sneak preview and an Academy Awards program for all video actors to recognize their contribution to our customer service efforts.
- 3) Refresher training, a one-hour game show format patterned after the TV show Jeopardy, in which teams of employees compete for fun and prizes.
- 4) Use of employee and equipment photos from PPD throughout the training to demonstrate examples of customer service, equipment upkeep, etc. TOPGUN themed music, scrolling photos of fellow employees, and a lively atmosphere complete the setting.
- 5) Ground school participants complete homework to reinforce the application of customer service standards to their specific area. Follow-up and prizes are used to promote participation.

How T.O.P.G.U.N. Training Can Be Used by Others

T.O.P.G.U.N. is based on commonly accepted customer service philosophies (consistency, timeliness, accuracy, follow-up, reliability, and professionalism) ensuring that it is applicable in many settings and industries. It can be tailored to suit the service standards of any facilities management organization.

Any organization interested in using the T.O.P.G.U.N. program would first evaluate their own customers' needs and use those to develop service standards or to personalize the existing standards. For instance, the four-hour response time to an urgent work order might be reduced in a smaller organization.

Much of the material is directly transferable. Training materials geared toward customer interactions will be the same at most service organizations. Therefore, sections on

body language, tone of voice, appearance, etc., can be used as developed.

Materials were constructed in Microsoft Word and can be easily updated to accommodate changes in service standards or be altered to fit the needs of other organizations. The game show used in preflight checkoff/takeoff training uses GameShow Pro 3 software and is easily modifiable.

Through the Interinstitutional Committee of Physical Plant Directors, the University of Florida has made this program available to all of the other universities in Florida's State University System.

Management Commitment and Employee Involvement

PPD's executive team set a goal in 2001-02 of achieving a continuous customer service focus. A team of four employees from management identified appropriate service standards and designed the corresponding training/recognition. An employee focus group was used to ensure applicability and frontline support during the development process. Training was pilot tested with the Executive Council to ensure support.

Over 900 PPD employees have attended ground school and preflight check-off/takeoff training. New hires preview

T.O.P.G.U.N. in orientation and are scheduled into one of the quarterly offerings. Employee response to the training has been overwhelmingly positive.

Support from PPD management has continued with an updated goal of "Build Momentum toward Enhanced Customer Service" in 2002-03. A T.O.P.G.U.N. bonus program rewards employees who provide excellent customer service. An additional recognition program to reward teams is currently under development.

Documentation, Analysis, Customer Input, and Benchmarking

The T.O.P.G.U.N. Customer Service Program is in its third year and continues with quarterly offerings to new hires and an ongoing bonus program for employees who receive unsolicited customer feedback that demonstrates their application of the service standards.

The reaction of PPD employees to the T.O.P.G.U.N. training was evaluated using end-of-training surveys. Ratings of the training consistently exceeded 4.0 on a 6-point scale. Participant's knowledge of customer service standards and their applicability to their work was evaluated through the use of the homework book given out following ground school training. The overall effect of the T.O.P.G.U.N. Customer Service Initiative is evident in improved customer satisfaction levels, as well as

MORE THAN ENGINEERING

The gears of change move us forward.

Working together.

Listening to you.

Understanding your needs.

Providing solutions.

Building relationships.

Creating the motion to
turn your plans for today
into a better tomorrow.

EXPERIENCE **TEAM STANLEY**



Stanley Consultants INC.

A Stanley Group Company
Engineering, Environmental and Construction Services - Worldwide

**Central Heating/Cooling • Steam/Chilled Water • Cogeneration
Power Plants • Power Distribution • Power Transmission
Master Planning • Communications Systems • Water/Wastewater**

**Muscantine, Iowa
563.264.6600**

www.stanleyconsultants.com

the receipt this year of the Florida 2002 Davis Productivity Award for the program.

The T.O.P.G.U.N. Customer Service Initiative was presented to the Interinstitutional Committee of Physical Plant Directors, which represents facilities leaders from all the state universities in Florida. Discussions following the presentation revealed that although several schools were involved in measuring customer satisfaction, they were doing little in the way of formal training, etc., to attempt to improve such levels. 🏢

Jean Sweitzer is the coordinator, management analysis, in the physical plant division at the University of Florida, Gainesville, Florida. This is her first article for Facilities Manager, and she can be reached at jsweitz@ufl.edu.



How the Reengineered Solid Waste Operation Produces \$400,000 in Annual Savings

by Leonard Nash

Institutional Benefits

Described by former president Tad Foote as a "Campus in a Tropical Garden," the University of Miami's meticulously maintained Coral Gables campus consists of over 100 buildings on 260 acres. An enhancement to that vision has been our unique in-house trash collection program. Implemented in October 1992, this program produces \$400,000 in annual savings while providing numerous aesthetic and management benefits.

Unlike 35-ton commercial garbage trucks, our employee-operated customized flatbed truck weighs only 6.2 tons when fully loaded with three custom-made containers being hauled to one of several compactors located in convenient but secluded perimeter locations. Consequently, our commercial hauler can now charge by *actual weight*, rather than *potential volume*, so costs reflect monthly fluctuations in trash output.

Additionally, the removal of commercial trash trucks from internal campus areas reduces wear and tear on campus roads, eliminates the windswept material, glass particles, and offensive odors generated by on-site trash transfer, and allows for flexible pickup schedules tailored to each campus facility, virtually eliminating customer complaints with regard to trash collection. Additionally, much of the \$4 million in cumulative savings created by this process reengineering has

been reinvested into plazas, major landscape features, and other campus beautification projects.

Innovation, Creativity, and Originality

Before 1992, a typical 6-yard container was picked up three times weekly, but only half-full in terms of potential volume. Therefore, we paid to haul 18 cubic yards of trash when actual quantity averaged 9 cubic yards of uncompressed material. Today, our driver/operator transfers loaded containers to one of our convenient but secluded compactors. Our commercial hauler transfers the loaded compactors to the landfill, charges by weight, and provides monthly bills that we monitor for accuracy and reasonableness.

Startup costs of \$145,000 included concrete pads, fencing, and electrical hookups at the two new compactor sites; purchase and modification of a new Ford F-350 stake body truck; modification of an existing truck for backup use; purchase and modification of two previously-leased compactors; and 70 custom containers which are easily camouflaged by landscaping and architectural features. We depreciated these items over five years, although they will all still be functional 11 years into the program.

At each location, the university-employed driver/operator removes the loaded container using the truck's remote-operated hydraulic winch, sweeps up loose debris, and installs an empty container. After every third pickup, he empties the containers at the closer of our two compactor sites.

Portability and Sustainability

After studying the quantitative and anecdotal data from your existing trash collection system, you need to tailor your in-house collection program to account for the unique layout of your campus. Proper research and data analysis will help convince administration officials to approve the necessary startup costs. Concurrently, you will need to forge a creative partnership with your trash hauler, who will continue to realize a reasonable profit from the sale and maintenance of compactors and containers, in addition to hauling and landfill fees.

On a flat, contiguous campus, the use of a "train system" utilizing containers equipped with axles and tires, and pulled by a suitable truck, might simplify the process even further. Because our hauling pattern traverses several city streets, code restrictions prevented this configuration at the University of Miami, although we remain convinced of the viability and benefits of such a plan, as it eliminates the step of loading containers on and off the truck.

Whenever possible, perform preventive equipment maintenance on Sundays and train a full-time employee from the grounds maintenance operation to serve as a substitute driver/operator. To accommodate campus additions, simply add additional containers, compactors, trucks, and driver/operators.

Management Commitment and Employee Involvement

Our detailed audit of the old trash collection system convinced our administration to approve startup funding for this process reengineering. Considering the durability of the necessary equipment, including the aforementioned Ford truck, we agreed to purchase, rather than lease, the necessary equipment, including our existing 40-yard compactors, which were almost fully depreciated but still perfectly functional.

Our trash hauler introduced us to their source of custom-made containers and compactors and assisted our mechanics in the design and customization of our trucks. Ongoing communication between the driver/operator, the mechanics, and management helps keep this equipment in excellent operating condition.

The planning stage offered the greatest challenges and the greatest risks because our search revealed no comparable programs to use as a model. Primarily, we questioned whether one worker could handle the operation alone, but 11 years later, the program remains a smooth and seamless process, with only one change in primary driver/operators. And the process is so simple, quiet, and efficient, that many campus visitors have commented that they had not noticed any evidence of our trash collection operation.

Documentation, Analysis, Customer Input, and Benchmarking

Every year we benchmark our success against the previous five years. For example, in September 1998, we had 104 tons of trash, and in September 2002, we had 148 tons of trash. Therefore, in the five-year period that included 1998, 1999, 2000, 2001, and 2002, our actual weight of trash increased by 42 percent, but our inflation-adjusted cost remained less than it was in 1991. We study and maintain our monthly waste hauling bills, which include cumulative campus-wide tonnage, landfill charges, franchise fees, and the number of pickups since the program's inception. This data allows us to regulate pickup schedules, thereby avoiding unnecessary pickup fees.

However, we cannot benchmark our program against other in-house trash extraction programs because no other facilities operation that we know of has instituted such procedures. Nonetheless, this effort has resulted in a cumulative savings of over \$4 million since October 1992, all with no additional customer responsibilities. Year after year, this initiative continues to be a win-win situation for all stakeholders and we encourage our counterparts to develop and implement comparable programs. 🏢

Leonard Nash is a freelance writer based in Hollywood, Florida; he can be reached at ldn@leonardnash.com. This is his first article for Facilities Manager.

GET TO THE NEXT LEVEL

TAKE YOUR FACILITY MANAGEMENT WHERE IT NEEDS TO GO

MicroMain FM™ gives you the right tools to link up-to-date facility data into your drawings and improve facility management. And, unlike most CAFM products, MicroMain FM is very easy to use. With this powerful new system, you'll take facility management to the next level. Manage specific operations more effectively, including:

- **space planning** – provide charge-backs to business units
- **move management** – track vacancies and calculate churn rates
- **maintenance** – increase accuracy with data-enabled drawings
- **collaboration** – share marked-up drawings for feedback
- **reports** – track progress and results

Seeing is believing.
Set up your live
demo today!

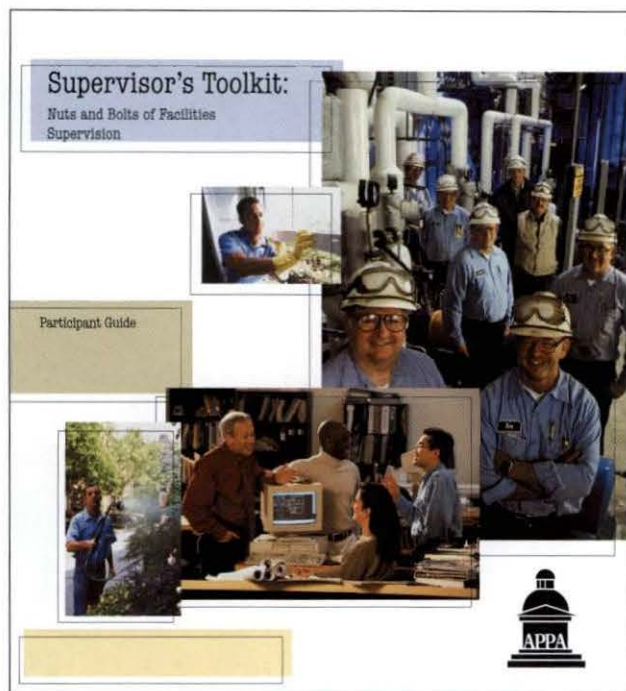
FM
MICROMAIN

www.micromain.com

See for yourself! For a live Internet demo, call us at 888-888-1600 or go to www.micromain.com.

©2003 MicroMain Corporation

APPA's *Supervisor's Toolkit* – Your Solution for Success



All too often outstanding employees at education institutions are promoted without prior training or experience and are required to perform as front-line supervisors. Campuses have long recognized this fact and understand the importance and need to train and develop these individuals. Lack of training for front-line supervisors can result in high employee turnover, low employee morale, requests for transfers, and overall poor performance. A lack of training can lead to possible monetary losses.

Ideas Into Action

Developed by a group of dedicated facilities professionals and trainers, APPA's **Supervisor's Toolkit: Nuts and Bolts of Facilities Supervision** was created to increase productivity, morale, and decrease poor performance. The **Supervisor's Toolkit** has eight modules of varying length and is presented in a PowerPoint program. The training package includes participant workbooks, wall charts, films, and video clips.

The program is designed for a full-week of training (36–40 hours) or could be conducted on a flexible schedule over two or more weeks.

Modules

Module 1: Supervision, What Is It? Learn to define effective facilities supervision; identify the roles and responsibilities of supervisors; and understand the four functions of supervision.

Module 2: It's More Than Administration. Learn to understand the supervisor's role in administering organizational policy and procedures; recognize the legal considerations in the facilities environment; and gain an awareness of resource management.

Module 3: Communication, Let's Talk! Identify barriers to effective communication; demonstrate communication skills; and understand your role in the communication process.

Module 4: If It Weren't for the People. Discover how to understand the importance of developing and maintaining effective relationships with others in the workplace; examine the different types of relationships that exist in the workplace; and identify strategies and skills for improving relationships with others.

Module 5: Motivation and Performance. Identify methods of training and developing employees; ascertain methods of positive reinforcement; and understand the importance of performance management and evaluation.

Module 6: Customer Service Triangle. Learn to create a basic understanding of three major aspects of customer service which include process, experience, and recovery; examine the role of the supervisor in customer service; and help participants identify areas for improvement in service delivery in their organizations.

Module 7: Supervisors as Leaders. Master techniques to understand critical elements of leadership; transition from managing to managing and leading; and understand your own preferred leadership style.

Module 8: Synthesis. Look at lessons learned, examine your toolkit, and evaluate the program's effectiveness.

Train

- Under the umbrella of the Institute for Facilities Management (September 2003 in Indian Wells, California);
- At your own institution or a nearby institution; or
- At an APPA Regional or Chapter meeting.

Call the education department at APPA for information on how to set up
a training for your institution or region today!

Call 703-684-1446 or visit www.appa.org/education

INTRODUCING

The Center for Facilities Research

by Maggie Kinnaman and Gary L. Reynolds

For those of you who missed APPA's Educational Facilities Leadership Forum in Nashville, Tennessee, we would like to share some exciting news with you. APPA has just launched one of its most exciting initiatives to address all of APPA's desired outcomes by enhancing member competency, strengthening collaborative relationships, and raising levels of credibility within our respective institutions. Additionally, this initiative is available to all members from your desktop and gives each of you the opportunity to participate and receive recognition for that participation. Finally, this initiative is making an investment in the future of the facilities profession.

So what is this great new initiative? It is none other than the Center for Facilities Research, or CFaR (pronounce it See-Far). Let us tell you more.

What is the Center for Facilities Research?

The Center for Facilities Research will serve a vital need for the integration of the development, collection, and delivery of

facilities-related research in the educational environment. CFaR has been established within APPA to organize and consolidate research related to facilities management issues impacting educational outcomes. It is important to know that we are defining research very broadly as the "deliberate search for knowledge."

Many of us have lots of data that we've collected over the years. Some of us have even taken that data and put it into spreadsheets and developed graphs to create information that might help form a decision we need to make. Sometimes this information has been immediately applicable and other times it has not. Its usefulness depends upon the situation, as the application of information to a specific situation puts the information in context resulting in the creation of knowledge. That is, I have this information and I can apply it to solve a specific problem in a knowledgeable way.

That's what CFaR is about. Involving our membership and our partners in collecting data, creating information, and using it in the context of higher education facilities management. Creating this body of knowledge related to the facilities profession is an essential element in our profession's ability to grow and be successful in the future. Without research and application of that research, growth cannot occur and stagnation reigns.

CFaR | Center for
Facilities Research

Maggie Kinnaman is director of business administration for facilities management at the University of Maryland-Baltimore; she can be reached at mkinnama@fm.umaryland.edu. Gary Reynolds is director of facilities services at the Colorado College in Colorado Springs; he can be reached at greynolds@coloradocollege.edu. The authors are Past APPA Presidents and currently serve as co-chairs of APPA's Center for Facilities Research Advisory Council.

- **CFaR's vision is:** To become an internationally recognized resource supporting learning environments.
- **CFaR's mission is:** Advancing the body of knowledge of facilities management through research, discovery, and innovation.
- **Desired outcomes include:**
 - Expand and strengthen the facilities body of knowledge
 - Identify needed research areas
 - Consolidate existing and future facilities-related research
 - Ensure stability and continuity of the research initiative
 - Improve access to facilities research information

In today's higher education environment all of us know the truth resident in the following statement, "Growth is optional, change is inevitable." In order to survive in our current environments, each of us must embrace the change in such a way that we move our organizations toward future success.

This can only be done if we have acquired the competency and confidence that can come from having access to and utilizing a body of knowledge that shows us the way. This knowledge must be accessible, credible, and strategic.

The creation of the Center for Facilities Research is in alignment with APPA's strategy to support our membership and our profession. CFaR will be an instigator of research, a repository, a resource center, and a means for distribution of that resource. Additionally, the Center will create opportunities for member participation and recognition.

Research within CFaR will be classified into subject areas related to APPA's four core competencies; General Administration, Operations and Maintenance, Energy and Utilities, and Planning, Design, and Construction. We currently have four assistant directors providing guidance within these four areas. They are:

- David Cain of Northern Arizona University
- Harvey Chace of the University of New Mexico
- Doug Christensen of Brigham Young University
- Pieter van der Have of the University of Utah

Providing overall guidance and direction for CFaR are your two authors of this article.

Laboratory Vacuum Accessories

We offer a complete line of vacuum and air system accessories including vacuum regulators, gas manifolds, valve boxes, and more. Specification sheets and detailed product data are available on our website, www.squire-cogswell.com. And personalized technical assistance is just a phone call away. After all, our client list is building.



Squire-Cogswell/Aeros Instruments, Inc. 1111 Lakeside Drive Gurnee, IL 60031
Telephone: 800-448-0770 or 847-855-0500 Fax: 847-855-6300 Web: www.squire-cogswell.com

In addition to the above, a Peer Review Panel has been established to work with the assistant directors in providing feedback and guidance to our members who are actually conducting a research project.

The CFaR initiative has been in a development stage for some time. The catalyst for the roll-out of CFaR at this time was a seed money contribution from Applied Management Engineering of Virginia Beach, Virginia. AME has been a sustaining member/business partner of APPA's since 1982, and became a national leader in facilities research with their authorship of *Managing the Facilities Portfolio* (NACUBO, 1991). AME will also serve as a member of the CFaR advisory council.

Within our definition of research as the "deliberate search for knowledge," we acknowledge that the research process can occur at many levels of depth and rigor. Thus we have defined various research strategies from simple inquiries to Ph.D.-level research. We are developing strategies to promote, capture and distribute information at all levels of research.

For CFaR purposes we have identified four research types:

- **Inquiry** (typically captured through use of the APPAinfo e-mail discussion list)
- **Sharing** (typically captured through answers to an APPA inquiry, an article in *Facilities Manager* magazine, information provided during an educational session)

- **Synthesis** (typically integrates existing relationships or research into a recreated form producing a new body of knowledge or perspective)
- **Creation** (typically represents hypothesis query resulting in the creation of new knowledge within the facilities profession)

Why is CFaR an Important Initiative?

As we look at the professional group most knowledgeable about managing educational facilities it is readily apparent that APPA plays a significant role. If doing significant research on educational facilities related issues is not done by us, then by whom? APPA's vision of "Becoming a Global Partner in Learning"—coupled with our desired outcomes of member competency, collaborative relationships, and credibility—provides the most compelling picture for APPA's development of this initiative.

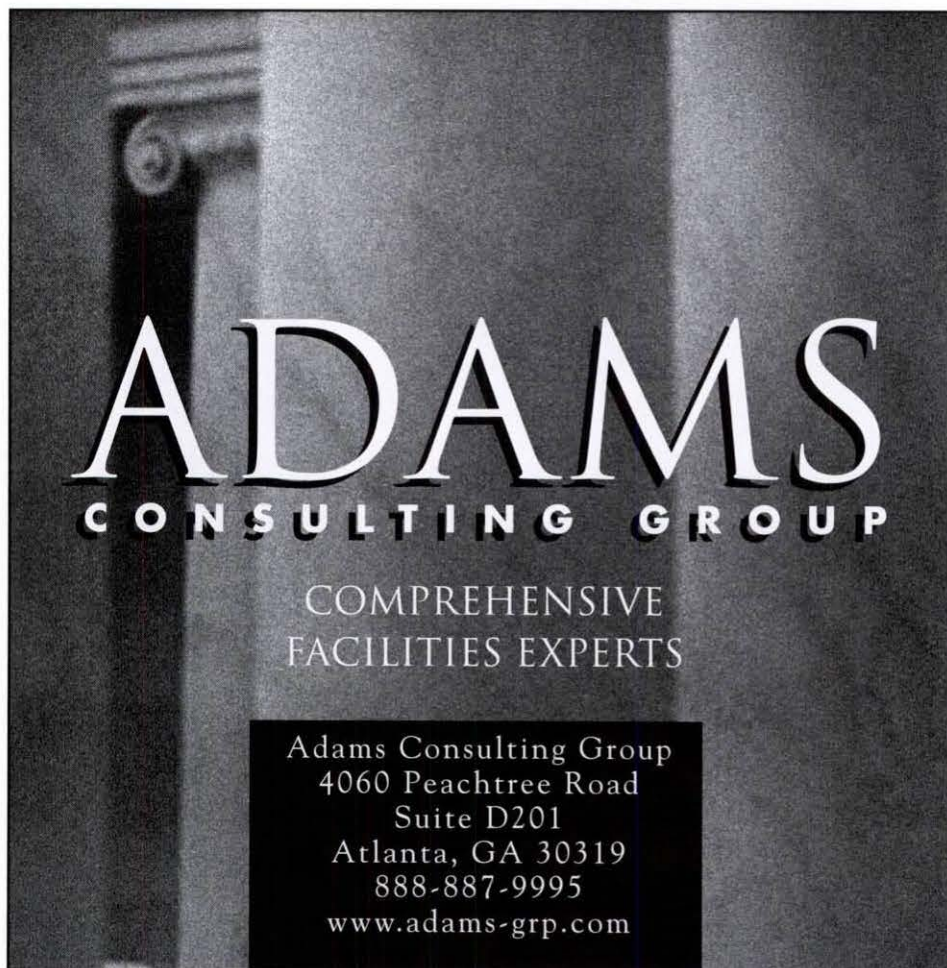
We are trying to not only foster research activity but to capture that activity at all levels and make it readily accessible to our members and educational stakeholders. It will be the combination of good solid research that is made available to all of our members that will result in members who are more successful in their respective duties by becoming more competent and credible within their campus communities. As we enhance our member's knowledge, so we upgrade the skills of

our profession and the ability of our profession to better serve higher education.

Why Should You Care about CFaR?

You may be asking, "So how will this initiative impact me at my campus?" To answer, let's take a peek into a typical day in the facilities department of Institution X. It's a beautiful spring day and as you walk across campus to your office you are approached by an angry researcher who confronts you with his problem. Over the weekend his office sustained yet another file server crash that wiped out years of research. Sadly enough, the need for cooling file server rooms throughout campus has been extensively discussed but unresolved due to a lack of priority and funding. The researcher is furious and threatening to have you fired for incompetency.

In response, you rally your troops and try to assess the situation. You find that there are actually two problems that are causing these server crashes. First is explained by your engineer, who indicates that use of space on campus has shifted from classroom to research and that the power grid is not adequate to support



ADAMS
CONSULTING GROUP

COMPREHENSIVE
FACILITIES EXPERTS

Adams Consulting Group
4060 Peachtree Road
Suite D201
Atlanta, GA 30319
888-887-9995
www.adams-grp.com

CFaR Advisory Council

Directors:

Maggie Kinnaman
University of Maryland, Baltimore
Gary L. Reynolds
The Colorado College

Assistant Directors:

David A. Cain
Northern Arizona University
Harvey D. Chace
University of New Mexico
Douglas K. Christensen
Brigham Young University
Pete van der Have
University of Utah

APPA Board Liaison:

Vickie Younger
APPA Vice President for Information & Research
Kansas State University

At-Large Members:

Robert G. Brooks
Applied Management Engineering, Inc.
Doug Kincaid
Applied Management Engineering, Inc.
Rod Rose
The JCM Group
Theodore J. Weidner
Facility Asset Consulting

APPA Staff:

E. Lander Medlin
Executive Vice President
Steve Glazner
Director of Knowledge Management
Francine Moore
Director of Marketing and Outreach

the equipment that is necessary when conducting intensive research. This problem is added to the longstanding issue related to proper cooling of file server rooms.

As you listen to the situation, you start to feel overwhelmed and ready to throw in the towel. How on earth can you solve so many problems that are key to the success of your campus? Even if you could identify strategies for addressing the challenges, you doubt whether you would be able to successfully influence campus decision makers to shift their priorities away from academic issues to the infrastructure.

If only you didn't feel so isolated and alone in how to develop a strategy that can result in resolution. You wonder what others have done in similar situations. In sheer panic, you seek a way to escape and pick up the newly arrived September/October *Facilities Manager* magazine. You flip the pages and suddenly come upon an article about some new APPA initiative, the Center for Facilities Research. After reading the article, you decide to give it a whirl. You go to the APPA website and enter the words "changing electrical load" and "cooling for file server rooms" in the search box. What should appear but five historical queries on the APPAinfo list, six articles from *Facilities Manager*, a case study documented from a Leadership Forum presentation, and the icing on the cake are the results of a recently conducted research project at the University of California at Fullerton.

Not only do you find information directly related to your search, but your search also results in information that could help you in the development of your strategy. Information related to funding infrastructure upgrades is noted as well as how to market your solutions for success. This article gives you information about how to state the problem in language that academics and business folks will understand and respond to. The information search has resulted in an expanded list of strategies that you can consider, success stories that

you can contact and refer to and even a funding model that does not make it necessary to realign academic priorities to the facilities department. Your initial thoughts are that you've died and gone to heaven.

Armed with all of the research, you call your team back together and develop your overall strategies. You find that no longer is the problem that you will present to decision makers related to facilities infrastructure but to the ability of your campus to meet its research mission. This shift will certainly get the attention of decision makers. You also find that you will go armed to the meeting with the problem and also the solution funded from a newly identified revenue stream, basically savings from future energy conservation efforts. Your team looks over the material and gives their thumbs up approval. You schedule the meeting with your VP for Administration and Dean for Research for the following week.

The day of the presentation you walk into the meeting confident and ready to tell your story and share your plan of action. You discuss the research mission of the campus, the future vision and the current situation. You compare this situation to the situation of others (obtaining this information and knowledge through research). You discuss options and also indicate which options have been deployed by others within higher education, some with successful outcomes and others not so successful. Your presentation is jam-packed with supporting material.

You entertain questions and then move forward with the greatest attention-getter of all, funding. As you explain that your strategy can be accomplished without any redirected campus funding you see the sheer awe in their eyes. You let them know that you have identified a new revenue stream that will be created from implementing successful energy conservation initiatives. You provide the list of energy conservation projects as well as the ten-year projection of revenue

Without your participation we have nothing more than a concept with little content. The content comes from you and always has. You have the data.

that can be invested into the electrical infrastructure upgrades for research initiatives.

Your AVP and Dean look at each other in disbelief. The only question expressed is, "When can you begin?" Immediately your credibility as a key player on campus is enhanced and you are sought out for future solutions to campus challenges. Your competency, confidence and credibility soar. Your campus reputation shifts from one of problem bearer to one of provider of solutions to challenges of higher education.

You are so impressed with the benefits that you've been able to reap by utilizing APPA's Center for Facilities Research that you decide to give back to the body of knowledge and you document your experience in an article that is shared with other APPA members through the APPA website. Your story becomes so well read that you're approached by APPA to do a presentation at the next Leadership Forum on your success story. The reputation of both you as an individual as well as your institution goes up within the higher education facilities profession.

We hope that this peek into a future day at Institution X helps answer our opening question about why CFaR should be important to you.

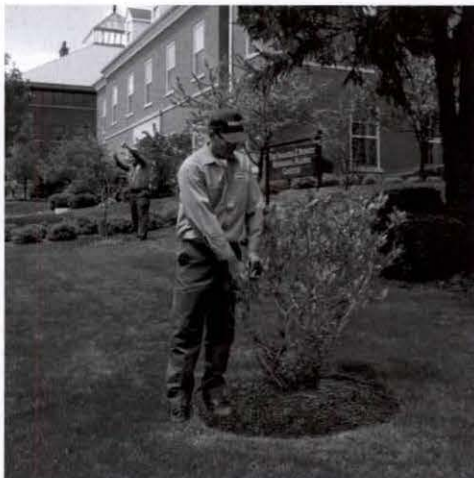
Does This Support Exist Today?

No it does not. Today when you go to www.appa.org/cfar you will not yet be able to do all of the things that Institution X was able to do, but with your participation and commitment, the future is most promising. As with many APPA initiatives we can only put together the concept and framework and the success of the initiative lies with each of you.

Without your participation we have nothing more than a concept with little content. The content comes from you and always has. You have the data. You may have transformed that data into useful information. Or, you may have the expertise to take someone else's data, create information, and put it in context from your perspective. We can help guide research and the focus of that research, but the researcher will come from APPA's membership. So when you think you might not have time to participate, remember the famous words of Plato, "The beginning is the most important part of the work."

Join us in celebrating this new concept and help us make Institution X's experience our shared reality. 🏰

Hire education.



The problem: Grounds maintenance budgets are going down while the costs to recruit students are going up. The solution: Davey. We can help you with everything from an operations audit of your grounds department to providing some of the more specialized services for you. We can give you a more beautiful campus, at a lower cost. Call 1-800-447-1667, Ext. 268, for more information.

DAVEY 
Commercial Grounds Management

WHY DO WE NEED Facilities Research?



by Theodore J. Weidner, Ph.D., P.E., AIA

APPA represents chief facilities officers, and their associates, primarily in areas that support practitioners. Those practitioners are responsible to provide a clean, comfortable learning environment for the leaders, learners, teachers, and researchers of tomorrow. APPA's vision statement is "Becoming a Global Partner in Learning." So one might ask, Why does APPA need to get involved in facilities research; isn't that an academic issue? Don't we just provide the place for academic research on facilities to occur? Who will use any APPA-related research if it is done?

These are valid comments but ones that do not fully grasp the meaning and importance of research into facilities. Research is the "investigation or experimentation aimed at the discovery and interpretation of facts, revision of accepted theories or laws in the light of new facts, or practical application of such new or revised theories or laws", according to *Webster's Ninth New Collegiate Dictionary*. Everyday APPA members must face new realities that are rarely solved by the repetition of a fixed set of actions. There are always new challenges, new opportunities, and varying conditions which keep the job interesting and challenging.

Ted Weidner is president of Facility Asset Consulting, Amherst, Massachusetts, and can be reached at tweidner@charter.net. He is a member of APPA's Center for Facilities Research Advisory Council.

On a regular basis, APPA members get together either at a national, regional, or state meeting, at APPA-sponsored Institutes and continuing education presentations, and even on the Internet through the APPAinfo e-mail discussion list. They share problems and solutions and explore new ideas to meet the challenges that face us every day. But there are some issues that require more in depth study or analysis; investigation or experimentation, new or revised theories, interpretation of facts, discovery! That's where the Center for Facilities Research (CFaR), APPA's new research arm, should help.

There's no doubt that I am biased. I have an internal desire to learn more and believe that everyone has the opportunity to learn something new every day. We learn from our own mistakes and from the mistakes of others; we're constantly learning. So CFaR is a natural. But others may not agree. That's okay, but let's look at some of the things that have happened previously that have only scratched the surface of what I believe APPA members need.

In 1984, ASCE, the American Society of Civil Engineers, published a proceeding titled "Research Needs Related to the Nation's Infrastructure." It focused on roads, bridges, utilities, and briefly addressed buildings; it recognized the nation's infrastructure was worth \$2 trillion to \$3 trillion at the time and that "the problems facing the nation's infrastructure are real and will continue ... for many years to come." There were some infrastructure improvements in the 1980s including early development of the Internet. Experience, sometimes

CFaR can provide members, and others, with the added benefit of useful, in-depth studies inspired by practitioners for researchers and graduate students to study the important areas; to identify the potential linkages that will assist in making the winning argument.

unpleasant, taught engineers about the challenges of maintaining and inspecting the road infrastructure. Remember the bridge failures at Mianus River (I-95), Schoharie River (I-90), Sunshine (St. Petersburg), and, more recently, Oklahoma (I-40)? They made good press for civil engineers and much was learned, but we still haven't identified all the weaknesses in road infrastructure.

APPA got into the act in 1989, and, with NACUBO, published *The Decaying American Campus: A Ticking Time Bomb*. It came at a time when public funds were getting stretched but some states were able to identify funds for public institutions specifically focused on reducing deferred maintenance problems. This was followed by APPA's publication of *A Foundation to Uphold* in 1996. Again, there were some successes noted at some institutions, but *Foundation* demonstrated that the first message had not been heard well. In 1999, Rod Rose wrote *Charting a New Course for Campus Renewal*, which documented discussions at a deferred maintenance symposium sponsored by the University of New Mexico. Recommendations for short- and long-range strategies, policies, and collaborative efforts emerged.

Acting again to bring the nation's attention to general infrastructure concerns, ASCE created its "Report Card for America's Infrastructure" in 1998 and assigned a grade of 'D' to schools, primarily public K-12, and reevaluated grades in 2001 with 'D-'; this was the only grade that ASCE assigned that got worse in the intervening years; grades for roads, bridges, transit, water, and energy all improved if only slightly. In general, ASCE has documented public infrastructure as is scoring between a C- and a D; not the kind of grades anyone would be proud of. But as facility officers for education facilities we should be particularly embarrassed by the ever worsening condition of our campuses.

With due respect to the authors/creators of the previous references, they haven't had long-lasting success at convincing either trustees, legislatures, or other financial leaders that educational facilities (or other public infrastructures) are in poor shape. The issues are cyclic; we seem to go from crisis to crisis. One thing is certain, when we ignore the foundation of what made our nation and economy great "we eat our seed corn;" and things don't bode well for the future.

So what do we do? Do we give up and just let things happen? No, that's a mistake. Do we find ways to deal with the financial reality and find ways to do with less? Maybe, but I haven't seen many taxpayers indicate that their children should be receiving less education or support services at

school. Do we develop more and better documentation on the physical conditions of educational facilities and the effect on the resultant effectiveness of learning? Yes, most emphatically.

No issue is completely addressed by a single argument. Multiple approaches are necessary in order to convince a broad enough group of people. There may be successes; individual colleges and universities may undertake the elimination of poor physical conditions. Individual states, North Carolina is one example, may commit to a significant investment in the higher education physical infrastructure.

But with over 3,500 institutions nationwide, there's a lot to do. APPA wants to be part of the solution by providing its members with the tools to make winning arguments. I believe APPA's members want to have additional tools to convey the message about facilities, both good and bad.

CFaR can provide members, and others, with the added benefit of useful, in-depth studies inspired by practitioners for researchers and graduate students to study the important areas; to identify the potential linkages that will assist in making the winning argument. CFaR can provide researchers with another outlet for their scholarly endeavors. CFaR is a method for APPA members to help themselves and their colleagues to find solutions and a convincing rationale. In its higher levels, CFaR can provide facility officers with real, documented evidence that *the cost of maintenance is cheaper than the cost of neglect*.

CFaR will give APPA members of all levels and backgrounds the opportunity to study and publish useful information that will help the industry and society in the long run. I believe that we must focus on the long run if we are to convince others that long-term investment in the educational infrastructure, and other public infrastructure, is not just worth keeping but worth preserving and maintaining. If it doesn't, then we'll get a new approach to facilities stewardship and learn how to do our jobs better, and differently. But isn't that what APPA is all about anyway? So I urge everyone, APPA member or not, to take advantage of CFaR as a contributor, supporter, or consumer, and help us become a global partner in learning. 🏛️



PROTECTING YOUR ASSETS

by Wallace E. Glasscock

"Training is everything. The peach was once a bitter almond; cauliflower is nothing but cabbage with a college education."

—Mark Twain, *Pudd'nhead Wilson* (1894)

Facility directors, managers, and supervisors spend endless hours staying on top of the issues that occur daily.

As these issues move from molehills to mountains, the most valuable asset of the organization, the employees, are often overlooked. Things that break, quit running, or wear out get the attention, evaluation, repair, and replacement. Most employees show up each day, don't break, continue to run, don't wear out to the point of stopping, and don't need immediate replacement. This does not indicate that all employees are perfect or that they don't have situations that demand attention. The old adage, "management spends 95 percent of its time on 5 percent of its employees," is a far too accurate statement in most organizations. Of course, while management is spending 95 percent of its time on the 5 percent; the dependable 95 percent are going about the task of keeping the college/university open and operating.

If the above is a true statement, what happens to the 95 percent of employees that continue to give 100 percent of their knowledge, experience, and time, day after day, to keep the campus running smoothly? Too often, the only time they are noticed is when they retire or become one of the 5 percent

out to lunch bunch. They are often ignored; their hard work is accepted as fact because they don't create situations that demand management's time, energy, and resources. They continue to do their work in a professional manner as management continues to pay attention to the most pressing problems. Ignoring those who contribute to the success of the organization is not an intended act but often is factual.

Motivation is not Easy

To keep a motivated work force, management must tend to the 95 percent of employees who are performing on a daily basis. This must become the highest priority for management. To accomplish this, management must view all employees as a resource and approach that resource with the same care given to machinery and equipment. Stated in facilities terms, management must treat all employees as well as the machinery and equipment are treated. Employees must be made part of a *positive preventive maintenance program*. This will prevent them from wearing out, stopping work, and provide a more positive climate in which to perform. Attention given to employees before they become unhappy will help to ensure that they remain motivated. The fastest and easiest way to motivate employees is to offer them a plan that they can follow throughout their facilities careers.

Lee Iacocca, once the head of Ford Motor Company and later Chrysler, stated that, "leadership is nothing more than motivating other people." It would be impossible to identify what motivates each employee in a facility. However, there are ways to approach this issue that will enable management to emulate the success of Iacocca.

Wally Glasscock is president of Glasscock Development & Training, Richmond, Virginia, and chair of APPA's Supervisor's Toolkit Task Force. He can be reached at wally@erols.com

Most Valuable Resource: Employees—Not Equipment

Employees must be seen as a resource by management: a resource that needs care and maintenance including opportunity for improvement, training and development, and advancement in the facilities organization. They must be considered more important than the new mower, trash truck, or even the new heating and cooling plant. While many employees will claim they are satisfied with the status quo of being a mechanic, secretary, or warehouse person, most are not. Even if employees claim to be satisfied with their present position, they will be more motivated to stay and continue working hard in a workplace that values their work and performance. Motivational factors include acquiring new skills, taking classes, attending training off- or onsite, or gaining knowledge through staff/shop meetings. Even if employees do not take advantage of these opportunities, the fact that they are available is a positive force in any organization. Studies have concluded that the most important motivational factor for employees is a feeling of being involved in the process of the organization.

Many employees do not want to advance to the position of foreperson or supervisor. But knowing that the opportunity to learn and advance is available is motivational for most. In

fact, some may refuse the offer for advancement if offered. Employees also realize that not all of them are management material and that most will remain in the area where they were assigned upon employment. Still these employees can be motivated through training and development which should become a part of facilities policies and procedures. Facilities departments have access to many opportunities for training and educational advancements on campus. This is not to say that creative thinking can't establish many other avenues for training and development that are not offered in this article.

Training as a Process

Training has many faces in facilities. Thirty-minute programs conducted monthly in individual work areas will reap valuable benefits; some campuses conduct a "brown bag lunch" in individual units. Many vendors have programs available that can be presented during work hours or over the lunch hour. Vendors may have training programs that they could offer to shops and/or warehouse personnel. Other departments on campus may have programs available they would share in exchange for some of the programs that are already available in facilities. Of course, someone must approach these other departments and ask for their help while offering assistance from facilities. Although unusual, instructors on campus may welcome the opportunity to share

information in related areas in which they instruct. State and federal programs are available and are usually without cost. Although there is some hesitancy in contacting state or federal Occupational Safety and Health Associations, they can prove an asset in the safety area.

Facilities must have a viable safety program to assure a safe working environment. Interest in the safety of all workers, office staff included, is necessary to meet safety laws. Safety programs show that management is concerned for its employees. If the campus has a safety department, it should be brought into the training process, if they are not already running safety programs for facilities.

Other possibilities for training are the sharing of information by shop personnel to other shops and/or office personnel. Electrical shop personnel may hold training classes for office staff on how to respect and work with electricity in the home, including safety tips. Auto mechanics may be able to discuss or teach other shop and office personnel about the care and use of today's automobile. The opportunity

Being well *INFORMED* just got better...and easier!

Our Custodial Staffing Analysis Software is based on APPA's *Custodial Staffing Guidelines**. Comparisons made at all five levels of cleanliness, against your actual task frequencies.

Cleaning Management Software
CMS2003

Better:

- Metrics by supervisory area
- Multiple sites & institutions
- Includes 358 ISSA tasks
- Equipment Library
- Project work tracking
- Work assignments, etc.
- Tons of other improvements

Easier:

- Quick analysis of task substitution
- Quick analysis of task Frequency changes
- Chemical usage analysis
- Equipment history
- Training records & reminders
- Still very affordable!

Software developed in consultation with Jack Dudley, P.E., Editor of the First Edition of *Custodial Staffing Guidelines* and Co-Author of the Second Edition.

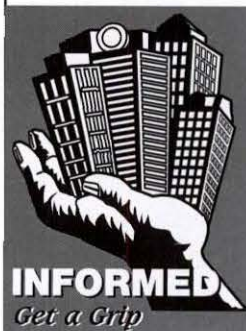
INFORMED LLC

Phone (734) 395-2053 Fax (734) 483-8917

Learn more at our site: www.contractron.com

Contact us for a FREE working trial version.
No salesman will call.

*Mention of APPA does not imply endorsement of product.
ISSA cleaning times used by permission of ISSA, Lincolnwood, IL.
www.issa.com



for sharing within facilities by existing staff is endless. Management is limited only by the creativity of the staff. The statement "to truly understand a subject, teach it" is all too true.

Facility personnel responsible for human resources can establish an educational committee to identify goals and objectives. The campus Human Resource office should be consulted and brought into the planning process. A survey of all employees will bring them into the process and goals can be established from this information. Once subject areas are identified the task of finding avenues for training or development will be simplified. The opportunities that are identified become the basis for establishing a development plan that will become a guide for supervisors and employees.

You Must Have a Development Plan

An Individual Development Plan (IDP), maintained and reviewed quarterly by the supervisor and employee, offers the opportunity for individual development. It will also be a motivational factor, as the employee and supervisor communicate and agree on a plan. An IDP must be an ongoing process for all employees in facilities. Once the decision has been made to establish an IDP, a formal training program must be conducted with all supervisors to assure success. An example of questions and process are listed below.

Individual Development Plan

Establish goals with the employee

- What is to be accomplished in the next 6-12 months?
- What is to be accomplished by the end of 24 months?
- What is to be accomplished by the end of 36 months?
- What situations may arise that will prevent goals from being reached?
- What can be done to overcome these situations?

Example of Process

- **Development Goals:** State goals clearly in behavioral terms; specify tie-in to organizational goals.
- **Competencies Needed:** State knowledge of employee and skills and abilities to be developed.
- **Action Plan:** State the type of training or assignment recommended; specify resources and location.

Proposed Completion Date

- **Quarterly Review Actions, Evaluation and Follow-up:** Note review dates and actions. For evaluation, note whether goals were met; indicate future action.

Examples of Methods Available for Development

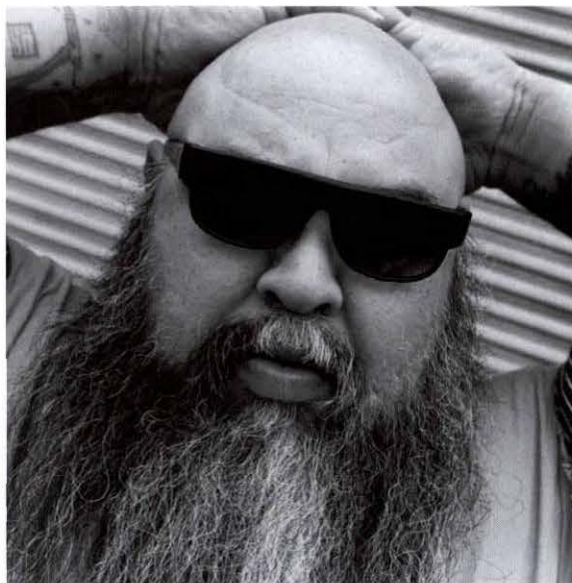
- Expand new assignments in current position

- Rotate to a different project/job
- Volunteer for work on a task force or action team
- Give an assignment to an employee who is an expert in specific areas
- Attend seminars/conferences/university courses
- Transfer to new job in facilities
- Become involved in interviewing potential employees
- Work toward certification or college degree

When employees meet with their supervisor to establish goals, time frames, and outcomes, each employee will benefit by filling out an interest survey. This helps establish how their interests match up with their work environment. Note: some employees will want to remain in their present position and will not enroll in any training or development programs. This is acceptable as long as they understand the opportunities that are available to them.

Some facilities management teams, aware of the value of encouraging employees to become part of their own career planning, have established an IDP. This not only involves the employee in their own future but in the future of the organization. An IDP will be encouraging to 95 percent of the employees as they become involved in their future by identifying personal goals and objectives. This becomes the measurement tool for development of the employee by the employee and manage-

you wanna make something of it?



When you have an important project to plan and design, you want to work with a reliable, experienced professional. Anyone else is a risk you can't afford.

Dufresne-Henry offers comprehensive services in the fields of *engineering, planning, landscape architecture and environmental science*. We have nearly a half century of experience in these disciplines and serve your region from a network of 15 offices throughout the United States.

It's your project. Make something of it. Give us a call at 585-454-2080, e-mail us at dh@dufresne-henry.com, or log on to our Web site at www.dufresne-henry.com. Want to talk to someone local? Contact the Dufresne-Henry office nearest to you.

Make something of it



engineers . planners . landscape architects . environmental scientists

Boston, MA . Westford, MA . Greenfield, MA . South Burlington, VT . Montpelier, VT . North Springfield, VT . Saratoga Springs, NY . Rochester, NY . Newburgh, NY . Pawling, NY . Portland, ME . Presque Isle, ME . Manchester, NH . Port Charlotte, FL . Sarasota, FL

ment. The extent of development is limited only by the aspirations of the employee and the supervisor. Establishing measurement for the 5 percent of the employees mentioned above will create an environment that may lead that employee to find satisfaction in another career field at another location.

There is value to a formal training and development program. An IDP for employees enhances this and offers these additional benefits:

1. It assists in identifying employees that will lead in the future.
2. It keeps employees motivated as they work toward personal goals.
3. It enables all employees to work toward personal goals as it benefits facilities.
4. It assures that involved employees will continue to improve.
5. It assists in identifying employees who normally do not speak out but have leadership qualities and potential.
6. It creates a format for communication by management.
7. It identifies employees that should be considered for training and development at off-campus seminars or conferences.
8. It creates a trained and professional staff.

As an Instructor for the Institute for Facilities Management, I always ask the following question in my classes. How many participants have an individual development plan? Most do

not raise their hands. When asked how many have an IDP for the employees who report to them, no hands are raised.

In development of employees, management must keep in mind the elements of training. As adults, effective learning is accomplished by involving the adult learner in the process. As stated above, each facility is limited only by its imagination. When the IDP indicates that an employee is ready to venture beyond campus training opportunities, APPA offers many opportunities. One place to begin is by attending local and/or regional APPA meetings. This enables the employee to communicate with individuals from other colleges/universities who have similar or related issues or problems. It also gives the employee the opportunity to network.

Also, the Institute for Facilities Management, a weeklong program for facility personnel twice each year, is an excellent off campus program. To graduate from the Institute requires attending four tracks for four programs. The staff at the Institute consists of professionals, many of whom have years of facility experience. It would prove beneficial to employees who are attending the Institute to work on their IDP follow-up goals between Institute sessions. These goals should be tied to the goals of facilities.

Other programs are available through APPA. One of those, Supervisor's Toolkit: Nuts and Bolts of Supervision (see article in May/June *Facilities Manager*), was introduced this past Sep-

tember at the Institute for Facilities Management in Indian Wells, California. It was previewed at the Educational Facilities Leadership Forum in Nashville this past July and was very well received. Supervisor's Toolkit is designed for entry-level supervisors or employees about to be promoted to supervisor. This is not to say that seasoned supervisors can't gain from attending, as the information is generic and teaches good supervisor skills. This program is now available for leasing through APPA in all APPA regions, chapters, or individual institutions.

There are many other programs available on most campuses for development of supervisors and managers. One campus, facing the lack of knowledge in electronics to operate a new security system, brought in an instructor from a local vocational and technical college to conduct class for two semesters. Holding classes on campus was motivational. The shop could now maintain the new system and an electronic contractor was eliminated. 🏢



REVOLUTIONIZING THE WAY YOUR FACILITY KEEPS TIME

The GPS Wireless Clock System from Primex Wireless provides accurate, synchronized time throughout your entire facility.

"We used to get 7 calls a week about clocks being off somewhere in the building. Now there are none."

— Manager of Facility Technical Services

- **Saves money on installation**—requires no hardwiring
- **Saves labor costs**—no manual adjustments following power outages or daylight saving time changes
- **Allows for easy relocation and retrofit**—since there are no wires, an unlimited number of clocks can be easily installed and moved at any time





1-800-330-1459

Mention Dept. FM903
www.primexwireless.com

Rental Solutions



Planned Projects Emergency Response

What would be lost if a building's HVAC or Power system were to break down for a lengthy period? Tenants, revenue, or even life! These systems are such an integral part of our everyday life that even temporary shutdowns are unacceptable. The solution - HVAC Portable Systems, Inc.

Temporary Systems Include:

Chillers
Boilers
Generators
Dehumidifiers
Air Conditioners
Cooling Towers
Air Handlers
Heaters
... and more!

HVAC

Portable Systems, Inc.

www.hvacportablesystems.com
info@hvacportablesystems.com

Carrier

A Subsidiary of the
Carrier Corporation

24-Hour Hot Line...

800-586-8336

Professional Leadership Academy



*Congratulations to the
Class of June 2003
Palm Springs, California*

Alan S. Bigger
Francis Broussard
Jeff Butler
Harvey Chace
R. Stuart Dawson
Dennis W. Dill
Edward Dorich
Michael T. Downs
Kyle B. Duncan
George Eckhardt
Mike Elston
James R. Fail
Gaylon Finley
Jeffery P. Foster
Scott Gill
Martha Gonzalez
Bob Kief

University of Notre Dame
Pacific Lutheran University
Montana State University
University of New Mexico
University of Saskatchewan
St. Louis Community College
Oakland University
Hagley Museum & Library
Emory University
The Colorado College
Buena Vista University
Pennsylvania State University
Pacific Lutheran University
University of Rochester
University of San Diego
Loyola Law School
Phillips Exeter Academy

John King
Wainta Kirkman
Louis Matthieu
Eddie McFadden
Lynn Morris
Doreen Murner
Michael Reese
Barry Riley
Kathryn Risotti
Jeff Rose
Charles A. Scott
David C. Sica
Steve W. Sile
Sue Wilson

University of Minnesota/Duluth
University of New Mexico
Universite de Montreal
Abilene Christian University
University of San Diego
National Association of Educational Buyers
Penn State University
University of Maryland/Baltimore County
The Butcher Company
Yavapai College
Illinois State University
New York University
University of North Carolina/Greensboro
Abilene Christian University

We thank the colleges that support their employees to participate in this program and also those facilitators who gave of their time and talent.

Doug Christensen • James Cole • Manny Cunard • Bill Daigneau • James Erickson • Larry Goldstein
Jack Hug • Ann Jenkins • Charlie Jenkins • Kelly McDonald • Lander Medlin

Professional Leadership Academy graduates largest group yet—32

This past June, another session of the Professional Leadership Academy was completed, sponsored by APPA and NAEB (National Association of Educational Buyers.) This session graduated the largest academy class—32—one of whom was Doreen Murner, NAEB's CEO, the first NAEB graduate. Along with APPA, NAEB continues to strive toward the importance of interpersonal leadership skills in all levels of the facilities management professional as well as the educational buyer.

The Professional Leadership Academy is designed for those individuals with a desire to lead. We now know that leadership belongs to everyone, regardless of their position in the organizational chart. In a changing environment, an organization's success depends on the staff's ability to embrace new roles, new ways of doing things, and new skills.

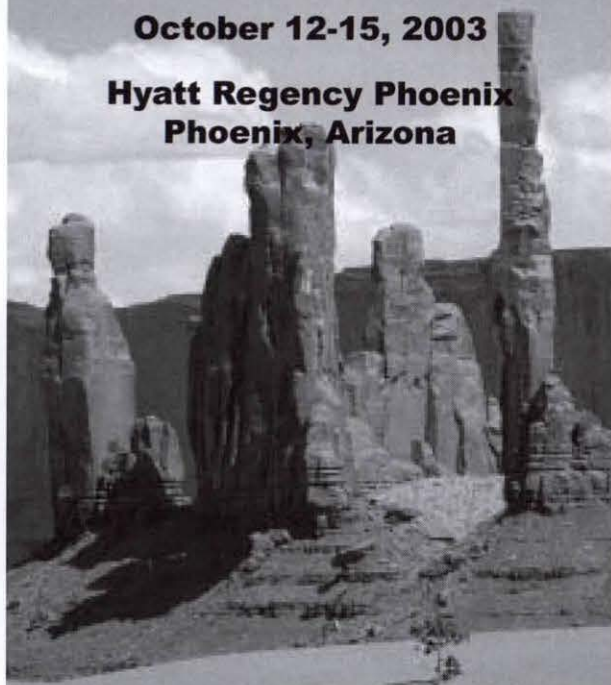
Information on the June 2004 session in Ft. Lauderdale, Florida, is available on the APPA website – www.appa.org/education.

ACUHO-I/APPA

2003 Housing Facilities and Services Workshop

October 12-15, 2003

**Hyatt Regency Phoenix
Phoenix, Arizona**



Chief Housing Officers, housing professionals, and physical plant administrators with facilities-related responsibilities (e.g., specifying, purchasing, construction, renovation, maintenance, housekeeping, etc.) are invited to attend this three-day workshop to engage in meaningful discussions on housing facilities projects.

This year's conference will feature educational sessions on the most current and pertinent housing facilities-related topics. The sessions will be presented by some of the most respected speakers in the field. In addition, we will offer an exhibit area that includes everything from architects to security systems, elevators to roofing systems. You will leave with valuable tools you can put to immediate use.

Register online at www.acuho-i.org today!

Session Offerings

Master Planning • Floor Care/Housekeeping
Deferred Maintenance/Capital Renewal
Writing an RFP • Elevator Maintenance
Operations and Maintenance
Recycling/Trash Removal • New Construction
Security/Keys/Access • Environmental Issues
Customer Services • Furniture Specifying
Renovations • Integrating Technology
Contract Services • ADA Compliance
Maintaining Historical Buildings
Staffing • Emergency Preparedness
Housing/Physical Plant Relations
Water Treatment • Asbestos Issues
Roofing Systems • Concrete/Brick Restoration
Energy Conservation
Terrorism/Homeland Security
Interior Design • Grounds Maintenance
Creating a Maintenance Operation
Managing Design/Construction Projects
(alternate project delivery methods)
Maintenance Organization Design/Structure
Mold/Mildew Management/Indoor Air Quality

Conference Fees

\$399 by September 12

\$450 after September 12

Meals

Breakfast and lunch provided Monday through Wednesday.

Deadlines

Early Registration: September 12, 2003

Final Registration: October 12, 2003

Questions?

Contact: Allen Chouinard
Phone: (217) 333-8251
FAX: (217) 333-8748
Email: agchouin@uiuc.edu

Contact: Gary Thompson
Phone: (919) 515-3040
FAX: (919) 513-2307
Email: gary_thompson@ncsu.edu

Doing the Right Thing/Doing the Thing Right

by James E. Christenson

He that will not apply new remedies must expect new evils, for time is the greatest innovator.

—Sir Francis Bacon, C. 1622

Those who provide and support the education of today's students are struggling. Budgets are deflating. Endowments do well to maintain their shrunken balances. Students look for institutions with the lowest cost instead of seeking admission to those with the highest quality. Everyone's expectations are higher; yet they want to pay less. State governments and school administrations demand greater cost effectiveness; at the same time, some say the old work ethic is fading away, making that objective more difficult to reach.

When the world around us has gone crazy, how can our organization, that lives in and is part of that world, be effective and innovative? When we are overwhelmed with too little money, too much work, too much change, and too little energy to deal with it all, how can anyone expect our people to deliver services effectively?

Effectiveness and Innovation: Different Concepts, Both Important

Keeping our mind and the minds of our staff members on the goal is difficult in these tumultuous times. Yet it is exactly such times that call for more effectiveness and efficiency than ever. A very simple definition of effectiveness is "doing the right thing." Efficiency is "doing the thing right"—and, by doing it right, using the least



resources. As Peter Drucker often points out in his writings, it is very important to deal with work in that order: Effectiveness first, then efficiency. As he put it, "There is nothing so useless as doing with great energy and efficiency that which should not be done at all!"

So to be effective, it is critical that the right things—those services that make a positive difference and, among those, the services that have the highest priority for your customers and for the well-being of the facilities—be targeted for the shrinking resources available. That, ultimately is one of the leader's key responsibilities.

On the other hand, perhaps resources can be stretched to expand the palette of services that can be provided if existing services are performed more efficiently. So efficiency should not be neglected. There is still a vital role for innovation—for finding or inventing new ways and better tools for increasing efficiency. And supporting innovation is also one of the leader's key responsibilities.

Is Everyone Aboard?

But the wise leader doesn't face these responsibilities alone. As noted

in the "Field Notes" column of the May/June 2003 Facilities Manager, a good leader also establishes and reinforces an environment where shared values support self-direction, innovation, and decentralized decision making. Facilities management in the twenty-first century is a complex business. No one person can learn enough to have the answer to the questions of which specific services and products should be "fed" and which should be "starved." A strategic plan initiated by the leader, conceptualized by the managers, and developed in detail by a fully-engaged staff can provide the framework to answer the critical effectiveness/efficiency questions: Where should we invest our limited resources? How can we make the existing resources do more good?

Unfortunately, however, the answers are always changing. That situation isn't new. In the quote at the beginning of this column Sir Francis Bacon observed the need for innovation nearly 400 years ago. In today's terms, one might put it this way: Even if you are on the right track, you'll get run over if you just sit there. This year's priorities are different than last year's. In fact, sometimes today's crises demand a complete redirection of resources from what seemed right only yesterday. And it is a certainty that better technologies and methods will be available each month, offering opportunities to improve efficiency, if investing in these better ways can be shown to be cost-effective in the long run.

Are your staff members up to the challenge of frequently changing allocations of resources? What have you done to prepare them? Technical skill is a starting point. Competence and a good mind, especially one given free-

Jim Christenson is an APPA member emeritus and can be reached at jchrste@jackelec.com.

As noted in the "Field Notes" column of the May/June 2003 *Facilities Manager*, a good leader also establishes and reinforces an environment where shared values support self-direction, innovation, and decentralized decision making.

dom to be creative, can often perceive better ways to do things. That leads to greater efficiencies—more product per unit of resource. The freedom to be creative is nurtured by not punishing people for mistakes they make in trying to improve services. Encouragement of experimentation is essential to innovation.

A Learning Organization

Peak performance in effectiveness and efficiency are enhanced with a well-conceived and targeted staff development program. We can't always find and usually can't afford a facilities staff where every person is super-effective and super-efficient. Most organizational leaders and managers hire those people reasonably available in the marketplace and, again assuming they have a moderate degree of wisdom, grow those ordinary people into highly effective and innovative staff members.

Growing involves learning. In a "learning organization," assessment of needs, professional reading and correspondence courses, mentoring, classwork, apprentice programs, development and advertising of best practices, and training by doing are supported and encouraged. Absent an atmosphere that supports such growth of people, organizations atrophy and "that's the way we've always done it" becomes the unofficial, destructive rallying cry.

If the concept of a learning organization intrigues you, you may be interested in some of the ideas developed in the "Plant Academy" of the University of Michigan in the late '90s. The "dean" of the academy, J. A. Bardouille and her colleague, Leslie H. Smith, wrote about the academy's ESP (Education/Skills/Performance) model

for learning in the May/June 1999 issue of the *Facilities Manager*.

Finally, I recommend that you follow what I believe was Mark Twain's advice: Learn from the mistakes of others—you can never live long enough to make them all yourself. You can follow that advice and learn what has worked well elsewhere by attending international, regional, and state meetings of APPA and by networking with contacts in peer institutions.

Meeting the Challenge

The challenges are great. The standards for effectiveness and efficiency increase steadily. But with leaders and

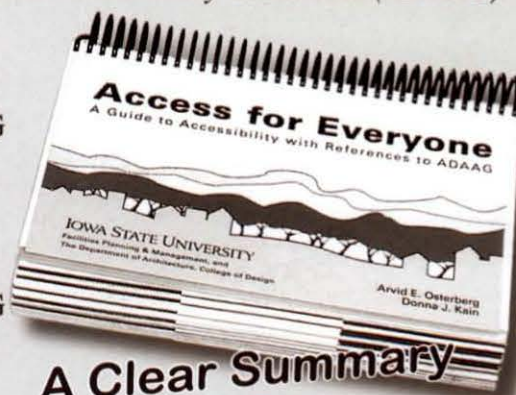
managers who believe in the worth and potential of the people in their organization, the challenges can be met. Leaders are appointed to empower people. Charles Darwin stated long ago, "It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change." For modern humans, responsiveness to change is mostly attitude. First, the attitude of the leader; then the attitude that leader inspires in the members of the organization. 🏢

Access for Everyone

A Guide to Accessibility with References to ADAAG

An illustrated handbook that clearly explains the *Americans with Disabilities Act Accessibility Guidelines (ADAAG)*.

- Review plans to ensure compliance with ADAAG
- Handy guide for on-site inspections
- A reference for accessibility and ADAAG
- Clear illustrations



**A Clear Summary
of ADAAG!**

**A must for every
Facilities Manager or Design Professional!**

Order online at <http://www.fpm.iastate.edu/publications/afe.asp>
or call (515) 294-5684, or 1-800-478-0048

Developed and published by Iowa State University, Facilities Planning and Management

Theory of Everything—FM Style

by Robert G. Brooks, P.E.

I am grateful to Jim Whittaker for his column "Asset Management Challenges and Opportunities" in the May/June issue of *Facilities Manager*. His comments about Government Accounting Standards Board (GASB) provide a perfect segue for my thoughts on the subject.

Noted physicist Dr. Stephen Hawking, the author of *A Brief History of Time*, recently wrote a follow-up book to his 1992 publication. The new book, *The Earth in a Nutshell*, describes the current state of physicists trying to uncover the Theory of Everything (TOE). In it, Hawking tells of physicists' struggles to find/create an all-encompassing theory of atomic forces or one theory to explain all physical forces and reactions—from the movement of atomic particles, to the movement of the planets, and everything in between. This search principally started with Newton and plateaued with Einstein. So far, physicists do not have the final theory, but they are all pretty sure one exists.

Hawking's story reminds me of the search for the one facilities' life-cycle model that would cover a facility's 200-year-old buildings, as well as the buildings constructed six months ago. We haven't found it yet, but we are all pretty sure that it exists!

The problem starts in daily operations. In the facility manager's world, the bulk of their day-to-day activities



are not so much with engineering or technical matters, as they are with juggling various "pots of money" to finance desired or needed projects. Thus, many battles erupt between the engineers and the accountants. In these ongoing battles, the accountants continue to win where it really hurts.

Before any kind of life-cycle model can be successfully developed or implemented, there must be agreement on basic foundations and parameters. In GASB, how assets are accounted for is a major consideration—whether using the modified approach or the depreciation method. It appears that in the GASB 34/35 conflict between the engineers and the accountants, the latter have won on a major point—depreciation.

Most attempts at life-cycle modeling require some assumptions regarding deterioration versus depreciation. I use the word assumption because the lack of broad, comprehensive data makes it difficult to support any statistical conclusion. During discussions about facility costing and life-cycle modeling, nothing

confuses progress more than the term depreciation.

I have, for some time, found myself making more of a distinction between depreciation and deterioration, and not to use the words interchangeably. To state very simply: Engineers *deteriorate* and accountants *depreciate*. The basic confusion between the two terms is that they both start with the letter D. However, one is a very real phenomenon, while the other is a bookkeeping entry.

To tie depreciation to the physical world is actually quite a stretch. For example, an engineer/technician can look at a building's system, and judge with some accuracy the quasi-age and condition of the asset. An accountant cannot look at the same asset and judge the status of the depreciation that may be on the books.

Deterioration is a real effect of design, construction, use, age, and maintenance, and can be described by deterioration tables, curves, etc. An architect/engineer can inspect a 30-year-old roof designed for 30 years' use, and declare, "We can get another 10 years out of this!" This really confuses the accountants!

Depreciation, on the other hand, is an accounting exercise that primarily was designed to affect income tax liability by dividing asset values into a number of years. In my experience, depreciation is a bookkeeping issue that in the private world is driven by tax policy. For the higher education market—particularly for public schools—there really is no need to engage in a depreciation discussion... at all. (I realize this is heresy, which is sometimes needed to shake things up.)

In the early 1980s, there was an attempt to create a deterioration

Bob Brooks is a founding member and past president of Applied Management Engineering, Inc. He currently serves as business development manager for the firm and can be reached at bob@ameinc.biz.

model based on a depreciation concept. Known as the Sherman-Dergis model, it used the sum of a year's digits to make the calculations. It seemed that finally a facility manager had something that the accountants could agree on. However, the American Public Works Association concluded in a study and in a report that it could not document any published data about the use of this model, but it did highlight the first attempt to link together the two Ds in higher education.

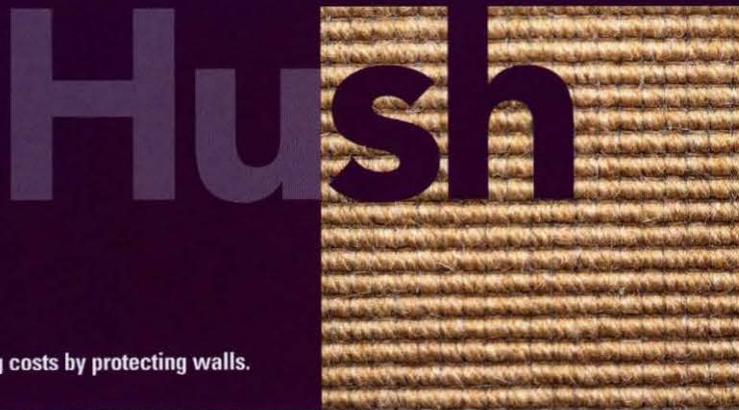
This concern with depreciation is why, in the world of crumbling academic facilities, there really is no end to the life-cycle model discussion; we



all haven't agreed on a basic foundation. I think everyone is mixing the two discussions, trying to force a square peg, as it were. The two Ds have some elements in common, but I believe their basic difference is the

crux of many facilities management accounting woes. I appreciate the work of accountants; it is just that the depreciation concept really doesn't help the typical facilities manager.

Back to Dr. Hawking, his search for the TOE has consumed a large part of his life. Every time someone develops what could be the final theory, someone else finds a flaw; no matter how minute. Thankfully, Hawking does not have to get his theory approved by a CFO, comptroller, etc.; otherwise the state of physics may forever be in a state of flux. 🏰



**Eurotex
Wall
Carpet**

The
**Perfect
Hush**

Wall carpet muffles sound.

It also helps reduce operating costs by protecting walls.

- Tretford.** Natural goat hair with nylon and viscose. Ribbed texture. 52 colors.
- Concourse.** Wool flatweave. Flame-proof unitary back. 20 colors.
- Lanai.** Woven wool. Compact, articulated surface. Flame-proof unitary back. 9 colors.

Wall carpets rated Class A for resistance to fire and smoke.

All colors also available in carpets for floors, matching textures.

Full service inventory in stock at service center. Rolls and cuts may be shipped within 24 hours.

EUROTEX

Exploring surfaces
Uncommon solutions for floors and walls

165 West Ontario Street
Philadelphia, PA 19140 USA
Tel 800.523.0731
Fax 215.423.0940
www.eurotexinc.com

Notice of Deadline to File Certain Requests for Payment of Administrative Expenses

In re:) Chapter 11
ARMSTRONG WORLD) Case No. 00-4471(RJN)
INDUSTRIES, INC. *et al.*,) (Jointly Administered)
Debtors.)

PLEASE TAKE NOTICE THAT the United States Bankruptcy Court for the District of Delaware (the "Bankruptcy Court") has entered an order, dated March 21, 2003 requiring all persons and entities that assert certain types of administrative expense arising under section 503(b)(1) of the Bankruptcy Code ("Administrative Expense") against Armstrong World Industries, Inc. ("AWI") to file a proof of Administrative Expense by **5:00 p.m. (New York City time) on November 24, 2003 (the "Administrative Expense Bar Date")**.

1. WHO MUST FILE AN ADMINISTRATIVE EXPENSE CLAIM

Only certain holders of Administrative Expenses must file a proof of Administrative Expense. If you believe you have a claim against AWI that (i) arose after December 6, 2000, (ii) qualifies as an administrative expense under section 503(b)(1) of the Bankruptcy Code, **and** (iii) falls within any of the six categories described below, no matter how remote or contingent, you must file a request for payment on account of such Administrative Expense on or before the **Administrative Expense Bar Date**:

- A. Any Administrative Expense representing personal injury, property damage, or other tort claims against AWI, *excluding* Asbestos Personal Injury Claims;
- B. Any Administrative Expense for breach of an obligation – contractual, statutory or otherwise – by AWI, including any environmental liability (but other than any environmental liability with respect to property that is currently owned or operated by AWI);
- C. Any Administrative Expense for amounts incurred by AWI after December 6, 2000 in the ordinary course of AWI's business if payment of such amounts is alleged to be overdue by at least sixty (60) days;
- D. Any Administrative Expense incurred by AWI outside the ordinary course of its business or on other than ordinary business terms, except to the extent the incurrence of such Administrative Expense was approved by the Bankruptcy Court (*e.g.*, the DIP Credit Facility Claim, the postpetition COLI loans incurred by AWI, or any claims under any hedging agreement entered into after the Commencement Date) or represents fees and expenses of professionals arising under sections 330, 331, or 503(b)(2)-(5) of the Bankruptcy Code;
- E. Any Administrative Expense that would not ordinarily be reflected as a payable on AWI's books and records or as a liability on AWI's financial statements; or
- F. Any Administrative Expense representing an employee claim against AWI, *other than* (i) a claim for wages, benefits, pension or retirement benefits or expense

reimbursement by an employee who is employed by AWI as of the Administrative Expense Bar Date or (ii) a grievance claim under any collective bargaining agreement to which AWI is a party.

If a claim is of the type specified in (A) – (F) above **and** the holder of such claim has asserted the claim in an action commenced against and served on AWI on or before March 24, 2003 (and in which such holder alleges that AWI's liability is predicated upon the operation of AWI's business after December 6, 2000, or otherwise alleges that such liability should be accorded administrative expense status), then the holder of such alleged Administrative Expense Claim is **not** required to file a proof of Administrative Expense Claim.

2. WHEN AND WHERE TO FILE

All proofs of Administrative Expense must be filed so as to be received no later than 5:00 p.m. (New York City time), on or before the Administrative Expense Bar Date at the following address:

By Hand Delivery:

Trumbull Services, LLC
4 Griffin Road North
Windsor, CT 06095
(Attn: Armstrong World
Industries, Inc.)

By Mail:

Trumbull Services, LLC
P.O. Box 1117
Windsor, CT 06095
(Attn: Armstrong World
Industries, Inc.)

Trumbull will **not** accept proofs of Administrative Expense Claims by facsimile or any electronic means.

3. WHAT TO FILE

Each proof of Administrative Expense must conform substantially to the claim form that has been approved by the Bankruptcy Court. **Such claim form may be obtained on the website established by AWI in connection with the Plan, www.armstrongplan.com, or by contacting Trumbull Services LLC at 877-866-0655.** Such claim must be written in English, and any amounts claimed therein must be converted to United States dollars.

Any creditor who is required, but fails, to file a request for payment of an Administrative Expense by 5:00 p.m. (New York City time) on or before the Administrative Expense Bar Date will be forever barred, estopped, and enjoined from asserting such Administrative Expense against AWI and its property, and AWI will be forever discharged from any and all indebtedness or liability with respect to such Administrative Expense.

RICHARDS, LAYTON &
FINGER, P.A.
One Rodney Square
P.O. Box 551
Wilmington, Delaware 19899

WEIL, GOTSHAL &
MANGES LLP
767 Fifth Avenue
New York, New York 10153

ATTORNEYS FOR THE DEBTOR AND DEBTOR IN
POSSESSION

The Bookshelf

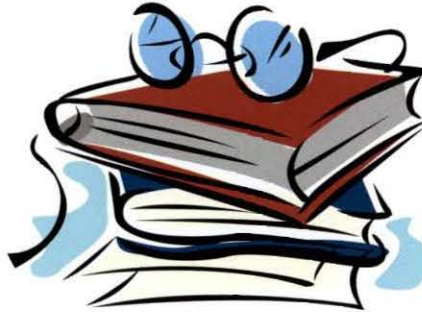
Book Review Editor: Theodore J. Weidner, Ph.D., PE., AIA

There can be no better way to complete this issue of effective and innovative practices than to look at the two books reviewed here. In the first book, accessibility, something that hit us rather traumatically over a decade ago, is still with some of us; the practitioner/teacher/authors have laid this topic out in an accessible and useful format. So if students are flocking to your campus because you have overcome the accessibility issue but not the housing ones, check out the second review for another book that should reside on your shelf. For those who read books without a recommendation from this column, why not develop an innovative practice on your own? Send me your input and I will provide the output in the form of a book review; it's easy. There are so many books that can be useful to facility officers that one person cannot possibly read them all; help is required (and appreciated). Just e-mail me your review, long or short, and you will be published also.

Access for Everyone, by Arvid E. Osterberg and Donna J. Kain, Ames, IA: Iowa State University, 2002, 512 pages, softbound.

Accessibility was ignored by almost every architect until 1990; then it became a major issue. I had the benefit, as an architectural student, to learn a little about accessibility in the 1970s and was able to apply it on a university level in the

Ted Weidner is president of Facility Asset Consulting, Amherst, Massachusetts. He can be reached at tweidner@charter.net.



mid-80s. The difficulty with accessibility had been that in many jurisdictions it was only addressed as a civil right and not a code issue. The Americans with Disabilities Act Accessibility Guidelines (ADAAG) was developed to assist designers and facility owners with the complexities of access but still did not have the imprimatur of a building code, nor was it always clear. Now we have the book *Access for Everyone* to help these designers and facility owners with new plans, existing facilities, and points in between.

The book is arranged in an interesting but logical manner. First, the physical limitations of people using wheelchairs and other aids are presented. This allows the user to refer to important human dimensions either as a reference to limitations presented in the ADAAG or to determine what must be developed by the designer for those items that are not spelled-out in advance. The book then moves from general access requirements, outside to inside, to more specific and specialized activities and areas. In most cases, minimum and preferred dimensions are provided.

Each chapter is coded for clarity and has a small table of contents in

addition to the main contents page. Figures and diagrams are keyed to each chapter code and each paragraph is sub-coded to highlight important points. Specific sections in the ADAAG are referenced clearly within the text for cross-reference. As a result, the book is both an instructional tool as well as a valuable reference. The authors have recognized that for the book to be used while examining plans and drawings, it had to lie flat, so it is spiral bound rather than the typical book binding. It is a tool for designers with them in mind; an accessible book about access, interesting concept.

If you have responsibility over the design of campus facilities, or are involved in alterations, you will find this book an excellent reference for its clarity, layout, and format.

* * *

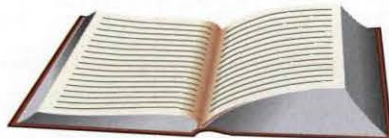
Campus Housing Construction, edited by Norbert W. Dunkel and James C. Grimm, Columbus, OH: ACUHO-I, 2003, softbound.

There probably is no bad time but this is really an excellent time in U.S. higher education to look at housing. So *Campus Housing Construction* is timely and provides an important contribution to the facilities area.

If you did not already know, students, parents, and administration officials are taking a greater interest in the living accommodations of students while they attend college. The days of Spartan college living are long past. Today's student is accustomed to a private room at home, maybe a shared bathroom, and ready access to a variety of food, recreation, and entertainment. In addition, be-

cause they are coming to a campus that is noted for information access, they expect the latest and greatest in electronics and the Internet. Parents have high expectations about the safety of their son or daughter as well as about their overall comfort. Attaining those expectations with the typical 60s-era dormitory with double-loaded corridor, shared double rooms, large community bathroom down the hall, and limited lounge/recreation space near the building entrance is nearly impossible.

This book opens with a look at college housing through history. This is not the first time that campuses have been faced with the need to develop significant facilities to house students and keep them focused on their studies while maintaining appropriate behavior. It is also a dense book; there are several gray chapters toward the front and figures, diagrams, charts,



and tables do not appear until later on. I would have preferred some graphic descriptions of the complexities of financing projects; that is an area of increasing interest to facility and housing officials as pressures for housing increase along with constraints on institutional borrowing. Still, the overall format is good, clear, and helpful.

Project delivery methods are described well, both verbally and graphically. So are discussions about the design and construction processes. I was disappointed with the absence of commissioning as a step in the project; facility officers should utilize their involvement in projects to

get the commissioning part included. Finally, the book ends with example projects, some statistics from projects constructed in 2001, and discussion of LEED (Leadership in Energy and Environmental Design); our students are concerned about the future and the buildings they live in should reflect that concern.

This book is excellent reading for both facility and housing officials who might be considering changes in their residential options. While *Campus Housing Construction* focuses on new construction rather than renovation, it can be used for both. If you have not already done so, develop a friendship with your housing director and purchase the book through him/her at a discount; it will be a great way to develop an important working relationship and you will both benefit from the experience and knowledge available in this book. 🏠



TAC Energy Solutions **Guaranteed Energy Savings**

"The actual savings we realized during the construction period were greater than TAC had estimated. My impression is that this project has been approached as a team effort by my staff and their staff. The working relationships have been excellent."

- Raymond E. McFarlane
Director, Physical Plant and Facilities Planning
University of North Texas

866-TAC-INFO • www.tac.com

- *Guaranteed Savings Programs*
- *Utility Analysis*
- *Energy Efficiency Upgrades*
- *Improved Comfort through HVAC Upgrades*
- *Deferred Maintenance Solutions*
- *Increased Building Value through Building IT*



APPA'S 2004 *Awards & Recognition* PROGRAM

Each year, APPA recognizes outstanding individuals and institutions for their contributions to the education facilities profession. APPA is pleased to announce it is now accepting awards for 2004.

Award for Excellence

The APPA Award for Excellence is designed to recognize and advance excellence in the field of educational facilities. Originally established in 1988, the Award for Excellence is APPA's highest institutional honor and provides educational institutions the opportunity for national and international recognition for their outstanding achievements in facilities management. The award is designed to encourage a systems perspective of facilities operations as a critical contributor to the overall institutional mission and vision. The Award for Excellence designation is valid for a period of five years.

Award submissions are due no later than January 31, 2004.

Effective & Innovative Practices Award

Sponsored by Sodexo USA, APPA's Effective & Innovative Practices Award recognizes programs and processes that enhance service delivery, lower costs, increase productivity, improve customer service, generate revenue, or otherwise benefit the educational institution. Entries can describe either a new program or significant restructuring of an existing program or process. Up to five ranked submissions will be eligible for a cash award of \$4,000. Winning entries will receive special recognition on both APPA's website and in APPA's *Facilities Manager*.

All entries are due no later than January 31, 2004.

Meritorious Service Award

Each year, APPA members bestow the Meritorious Service Award upon the individual member or members who have made significant, life-long contributions to the profession of higher education facilities management. APPA's highest individual honor, the Meritorious Service Award is given to no more than three individuals a year. Individuals must be an active member of APPA for a minimum of five years; attended and participated in meetings and other functions at the international level, and demonstrated continued and distinguished service to the association.

All entries are due no later than January 31, 2004.

Pacesetter Award

The Pacesetter Award is designed to encourage further participation in APPA among those who have already made significant contributions at their regions or chapters. Up to seven Pacesetter Awards will be given each year.

All entries are due no later than January 31, 2004.

APPA encourages you to contact your regional representative to discuss how you can apply for an award. To receive an application and guidelines, visit www.appa.org for additional details. All award submissions are due no later than January 31, 2004.

For any *Occasion...*

Call Today
for your
FREE
Color Brochure
1-800-333-2687

Our
ABS Folding
Tables and Series 5

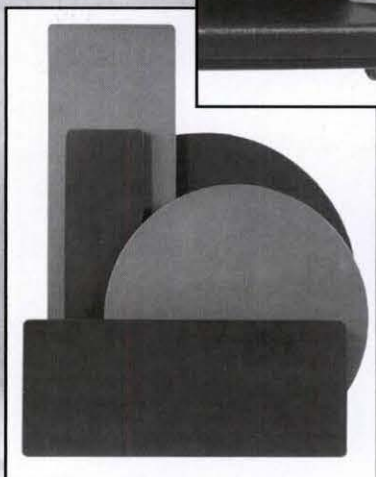
Folding Chairs provide
years of guaranteed
service in a multitude of
colors and styles.

Buy direct
and SAVE!

Your Facility
Name Here

 **McCourt**
Manufacturing

Fort Smith, Arkansas, USA
501.783.2593 Fax: 501.783.7608
Visit Our Web Site at www.mccourtmfg.com

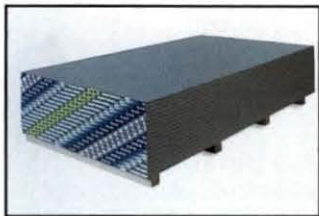


New Products

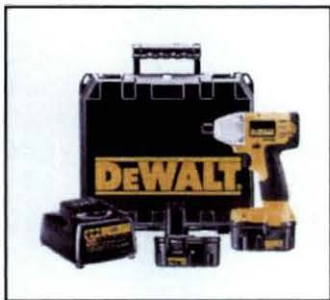
New Products listings are provided by the manufacturers and suppliers and are selected by the editors for variety and innovation. For more information or to submit a New Products listing, contact Gerry Van Treeck, Achieve Communications, 3221 Prestwick Lane, Northbrook, IL 60062; phone 847-562-8633; e-mail gvtgvt@earthlink.net.

U.S. Gypsum Company

introduces Sheetrock brand Humitek Gypsum Panels. Designed specifically for use in interior areas, the panels utilize a proprietary technology and are moisture and mold resistant from front to back. These panels are initially available in 8-, 10-, and 12-foot lengths in 5/8" thickness. The panels feature tapered edges for easy finishing and they score and snap quickly, requiring no special handling or installation procedures. For greater detail and additional information, call U.S. Gypsum Company at 800-USG-4YOU.



DeWALT delivers a new line of 9.6 volt, 12 volt, and 14.4 volt cordless impact drivers and impact wrenches that deliver nearly three times more torque than traditional cordless drills and weighing up to 20 percent less. The new cordless impact tools are designed for professionals who want faster productivity for their fastening and driving applications. With faster speeds, more torque, and greater control over traditional cordless drills, these tools are ideal for a wide range of applications. For more information, call DeWALT at 800-4DeWALT.



Technical Concepts recognizes the concerns over the spread of SARS along with the growing awareness that contaminated washroom surfaces can transmit disease or infection. This has sparked a rising interest in touch-free washroom fixtures in schools, facilities, and buildings accessed by the public. The AutoFaucet is just one of the many Technical Concepts products that can help you meet this serious need. The AutoFaucet operates with sensors, cam gears, and long-lasting "AA" cell batteries. AutoFaucet can also help reduce water consumption by as much as 70 percent. For further information, call Technical Concepts at 847-837-4100.



Johnston Sweeper Company

introduces a new luxurious "M" cab on its 3000 and 4000 mechanical sweepers. With the most modern, ergonomic, safety and comfort features in the industry, this well appointed front and center mounted cab is designed with the operator in mind. It has built-in rollover protection (R.O.P.S.), 360-degree panoramic vision, and ergonomic operator controls. It also features a 5.6 cubic yard, center mounted hopper and a safety drive lock-out when the hopper is in a raised position. For additional information, call Johnston Sweeper Company 909-613-5600.



MicroMain Corporation introduces MicroMain XM to help keep campus facilities running smoothly. With well-maintained buildings, classrooms, and grounds, you can present the most appealing image possible to students and parents. A computerized maintenance management system (CMMS), MicroMain XM provides preventive maintenance, asset histories, inventory and budget control, automated work orders, purchase orders, reports, and more. Educational customers like this software because it's easy to use and fits in with the way they already work. Universities and other educational institutions have relied on MicroMain for over 12 years. For a free demo or information, call 888-888-1600 or go to www.micromain.com.



The U.S. Department of Energy (DOE) has joined forces with air conditioning manufacturers to bring higher efficiency rooftop air conditioners to the market. Public- and private-sector buyers may purchase these units at advantageous prices through DOE's unitary air conditioner program. Five units are available, with cooling capacities ranging from 88,000 to 120,000 Btu per hour, and energy efficiency ratios ranging from 11.0 to 13.5. All units meet federal ENERGY STAR® efficiency levels. For more information, visit www.pnl.gov/uac/ or contact the manufacturers directly by calling Global Energy Group at 727-372-3939 or Lennox Industries at 972-497-5160.



Coming Events

APPA Events

For more information on APPA seminars and programs, visit our website's interactive calendar of events at www.appa.org/education.

Sep 14-18—Institute for Facilities Management. Indian Wells, CA.

2004

Feb 1-5—Institute for Facilities Management. Tampa, FL.

Jun 20-24—Professional Leadership Academy. Fort Lauderdale, FL.

Jul 25-27—Educational Facilities Forum. Washington, D.C.

Sep 12-16—Institute for Facilities Management. Montreal, Canada

APPA Regional Meetings

Sep 17-20—RMA Regional Meeting. Sedona, AZ. Contact Polly Pinney 480-965-6106, or e-mail polly.pinney@asu.edu.

Sep 27-Oct 1—MAPPA Regional Meeting. St. Louis, MO. Contact Robert Washburn 618-650-8560 or e-mail rwashbu@siue.edu.

Sep 27-Oct 1—PCAPPA Regional Meeting. Portland, OR. Contact Townsend Angell 503-777-7763 or e-mail townsend.angell@reed.edu.

Sep 27-Oct 3—ERAPPA Regional Meeting. Philadelphia, PA. Contact Fred Long 215-951-1315 or e-mail long@lasalle.edu.

Sep 28-Oct 1—AAPPA Regional Meeting. Adelaide, Australia. Contact Brian Phillips 61-08-8302-1648 or e-mail brian.phillips@unisa.edu.au.

Oct 10-14—CAPPA Regional Meeting. Corpus Christi, TX. Contact Ron Smith, 361-825-2422 or e-mail ronsmith@falcons.tamucc.edu.

Oct 11-14—SRAPPA Regional Meeting. Morgantown, WV. Contact Joe Fisher, 304-293-7202 or e-mail joe.fisher@mail.wvu.edu.

Other Events

Oct 8-12—Custodial Management Association of Texas. Austin, TX. Contact Ken Lewis 979-845-3615 or e-mail klewis@ppfs4.tamu.edu.

Oct 8—Successful Safety Committee Meetings. Audio Conference-10:00-11:00 a.m. Central. Contact lalande@uthscsa.edu or call 800-982-8868.

October 19-22—ACUTA Fall Seminars. San Diego, CA. Visit www.acuta.org for more information.

Nov 5-8—Professional Grounds Management and Green Industry Exposition. St. Louis, MO. Call 800-609-7467 for more information.

Nov 12—Where's the Beef? The Need for Quality Standards. Audio Conference-10:00-11:00 a.m. Central. Contact lalande@uthscsa.edu or call 800-982-8868.

Index of Advertisers

Adams Consulting Group	54
AERCO International Inc	36
American Thermal Products	40
APPA Publications	51, 64, 73
Armstrong World Industries	70
Blazemaster® Fire Sprinkler Systems	16
Carrier Corporation	63
Davy Commercial Grounds Management	56
Dorlen Products	10
DriTherm Inc	Cover 3
Dufresne-Henry, Inc.	61
Eurotex	69

Famis Software, Inc.	Cover 4
Gale Associates	17
Heatcraft Commercial Products	18
Informed Software	60
Iowa State Facilities Planning Services	67
Johnson Controls, Inc.	11
Lerch, Bates & Associates, Inc.	32
McCourt Manufacturing	74
MicroMain Corporation	50
Munters Corporation	14
NCFI	7
Primex	62

Siemens	3
Solar Turbines Incorporated	26
Squire-Cogswell/Aeros Instruments	53
Stanley Consultants Inc.	48
Strategic Distribution, Inc	5
Strobic Air Corporation	41
TAC Americas	72
TMA Systems	Cover 2
TSIG Consulting, Inc.	8
WFF Facilities Services	9

DRITHERM®

Protecting America's Pipes



Underground Pipe Insulation Corrosion Protection

- Over 300 miles of Piping Protection Since 1967
- Closed Cell - 100% Hydrophobic Product
- Creates Dry, Stable, System Environment
- Ideal for New Piping Systems/Repairs/Tanks
- Engineered Design for System Reliability



DRITHERM®
INCORPORATED

375 Route 10 - Suite 100 • Whippany, NJ 07981
Phone: (973) 428-0478 • (800) 343-4188



The only truly integrated Enterprise Facilities Management solution available today.

FAMIS is designed from the ground up to meet the needs of facilities organizations. FAMIS offers functionality that addresses the lifecycle of facilities management: from Space Planning, to Construction, to Maintenance, and Operations. We do this using a suite of software modules including Space Management, Capital Projects, Maintenance Management, Key Control, Utilities Management—buy one module or buy the suite depending on your needs.

FAMIS is the only truly integrated Enterprise Facilities Management system. To approach the broad functionality offered by FAMIS other systems rely on "best-of-breed" integration—expensive, complicated, difficult to support. The FAMIS approach: efficient, effective, reduces complexity.

<i>Space Planning</i>	<i>Construction</i>	<i>Maintenance</i>	<i>Operations</i>
<i>Archibus</i>	<i>Meridian</i>	<i>TMA</i>	<i>FASER</i>
<i>FIS</i>	<i>Primavera</i>	<i>MAXIMUS</i>	<i>Key-Z</i>
<i>Peregrine</i>		<i>Maximo</i>	<i>KeyTrak</i>
<i>FAMIS</i>	<i>FAMIS</i>	<i>FAMIS</i>	<i>FAMIS</i>

FAMIS gives you unprecedented breadth of functionality—in one system—all 100% Internet enabled. To learn how to transform your facilities operation into an E-business using FAMIS, contact us at 1-800-774-7622 or visit our website at <http://www.famis.com>.

famis
FAMIS Software, Inc.

(Formerly Prism Computer Corporation)

www.famis.com