

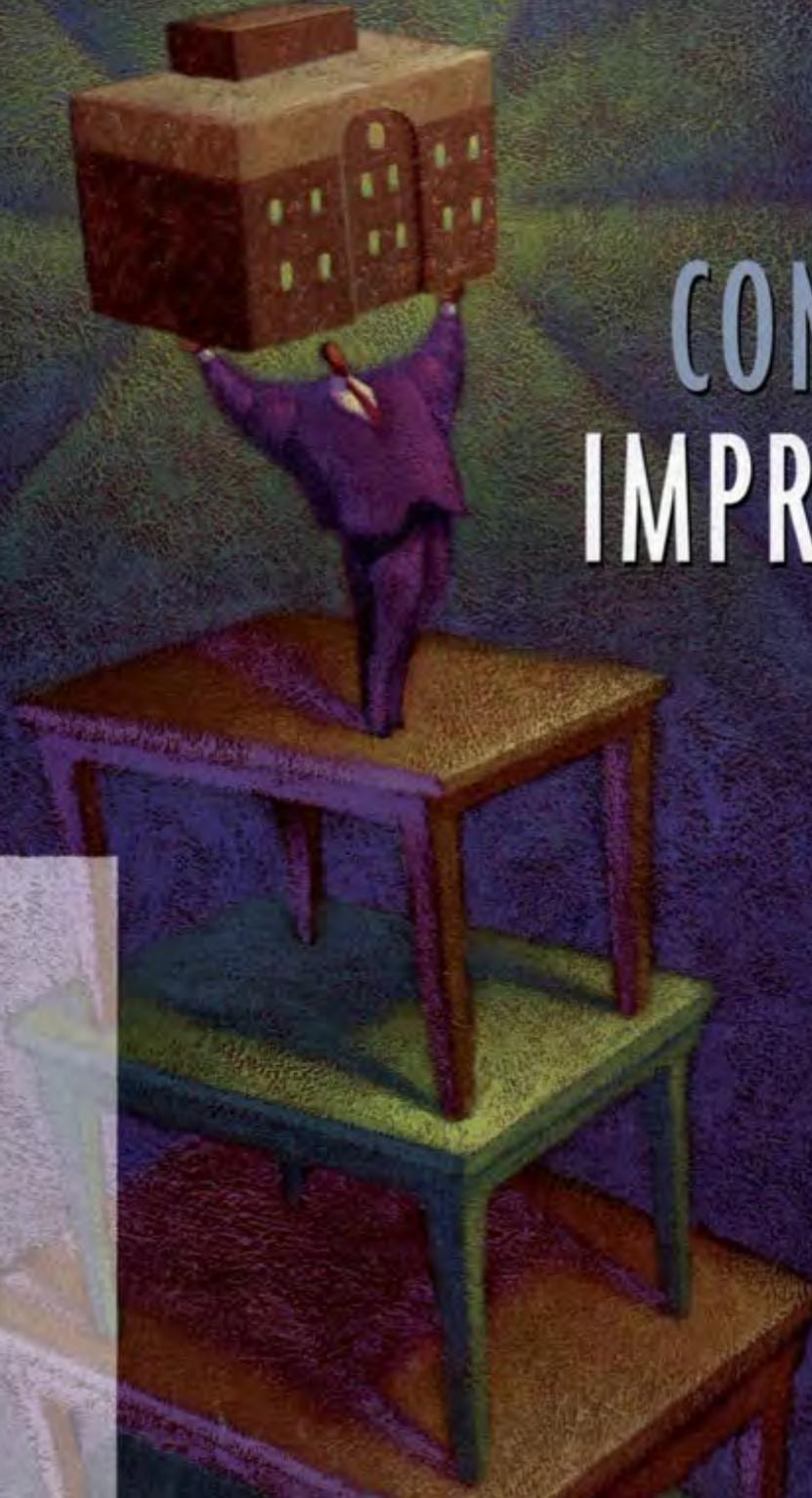
January/February 2000

VOLUME 16

NUMBER 1

Facilities Manager

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

A man in a purple suit is balancing a miniature brown building on a stack of three chairs. The chairs are colored brown, green, and brown from top to bottom. The man is standing on the top brown chair, holding the building with both hands. The background is a dark blue wall with a spotlight effect on the man and the building.

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Facilities Manager

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Volume 16 Number 1

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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, \$40 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.

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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

Steve Glazner

The notion of continuous improvement, as we view it in today's management environment, likely had its origins in the time management studies that proliferated in the early 1900s. Most of what followed in terms of "continuous improvement" relied on finding greater efficiencies, improved processes, and faster turn-arounds to production activities already in place. In other words, we were attempting to improve upon the ways that things had been done in the past.

But there are also those in the management and leadership who do not wish to look at the past, but instead develop a vision of where they'd like to be in the future. That might mean tearing down some long-held beliefs and processes, as well as warring against traditional practices and corporate or institutional cultures.

Several APPA initiatives, led by a number of innovative and visionary volunteers, attempt to move the facilities profession toward this latter approach. However, we provide a mixture of traditional circumstances with an ever-changing society and workplace to show you how things could be, provided you have the right tools and motivation.

Dave Cain and Doug Christensen provide an introduction to the current state of the continuous improvement effort. Brief mention is made of APPA's Strategic Assessment Model, but this serves as a prelude to the March/April issue of *Facilities Manager*, which will be focused on SAM and the various ways in which the model can be used to improve your facilities leadership role.

Doug Christensen also contributes an article on APPA's innovative Professional Leadership Center and the reformatted Leadership Academy. Jon Stemmler reports on the successful Individual Effectiveness workshop held at the University of Missouri and con-

ducted by Charlie Jenkins and Lander Medlin. APPA Secretary-Treasurer Phil Cox, who also chairs the Membership Committee, provides us with a clear view of how he and his committee are reinventing APPA's services in support of our members.

Also in this issue, Apollos Bulo discusses the importance of and structure of the health and safety programs for facilities staff at the University of Michigan. And President-Elect John Harrod provides an informative and entertaining summary of his official visit to the Australasian regional meeting last September. You'll also find reports of all seven of the 1999 regional meetings in this issue; thank you very much to all our correspondents from each of the regions.

We're proud to introduce two new columns to *Facilities Manager*. Many of you will remember Santo Manicone and his Regulatory Reporter checklists and summaries from APPA's newsletter of the same name. We have revived this valuable service and have asked Santo to continue providing us with useful regulatory and environmental information through his column.

In addition, this issue marks the first Listnotes column from Alycia Eck, APPA's Internet and publications manager, as well as list administrator for our APPAinfo discussion list. In Listnotes, Alycia will compile the best discussion threads of recent APPAinfo postings and share them with the readers of *Facilities Manager*. And soon you will be able to read archived versions of those discussion on our website at www.appa.org.

The new year, decade, century, and millennium allow us all the opportunity to review current practices and take action to improve, remove, or create the kind of personal and professional environment we most want to work within. Here's to our success, service, and satisfaction. 🏠

Eastern Region

Rick Wareham

ERAPPA Newsletter Editor

ERAPPA's 49th Annual Meeting and Education Conference took place in Ocean City, Maryland on October 3-6, 1999. The Maryland/D.C. Chapter of ERAPPA planned the event and did an excellent job! The theme for the conference was entitled "Sunrise on the Millennium."

The meeting took place at the Princess Royal Hotel and Conference Center on the oceanfront of Ocean City. Long called "the East coast's #1 family resort," Ocean City was a wonderful setting for the meeting. The

city, according to its mayor who welcomed the ERAPPA attendees at the inaugural breakfast, is working hard to become a premier conference center by expanding and promoting its hotels and convention center.

The conference opened with some inspirational words from Mark May, a former NFL football player, who played for the Washington Redskins, the San Diego Chargers, and the Phoenix Cardinals, and wears two Super Bowl rings. May spoke about teamwork and how it can improve your organization.

The educational sessions were divided into five tracts: Energy and Utilities; General Administration and

Management; Planning, Design, and Construction; Operations and Maintenance; and Business Partners. There were many fine presentations by ERAPPA members and our business partners.

There were also many exhibits set up by our business partners. We depend on the support and participation of our business partners. Without them, it would be difficult for ERAPPA to provide such a high quality conference.

The spouse/guest program was well attended and featured such activities as historic tours of Snow Hill, Furnace Town, and Berlin as well as a tour of beautiful Assateague Island. Guests



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were also invited to a crab feast at Hooper's Restaurant and the Annual Banquet.

The Annual Banquet featured a reception prior to a delicious meal. There were various awards and presentations recognizing members who have contributed to the organization during the last year. After the banquet, there was a casino night where members competed with play

money to buy prizes that were auctioned off at the end of the evening.

Finally, the closing breakfast featured Dr. Charles Prather, who enlightened the members with his thinking "out of the box" concepts. It is amazing how looking at a problem from a completely different perspective can result in some very innovative solutions.

The 49th Annual Meeting and Educational Conference was a smashing success. We look forward to our 50th anniversary meeting in Burlington, Vermont in October 2000.

Southeastern Region

Jewell Frazier

SRAPPA Newsletter Editor

The 48th Annual Meeting of SRAPPA was held October 23-26, 1999 in Biloxi, Mississippi and was hosted by the University of Southern Mississippi. "The Playground of the South" was both educational and enjoyable; David Anderson and his staff conducted an excellent conference.

The educational sessions centered around a theme of "Sail into Success on the Mississippi Gulf Coast," included very interesting topics such as Southern Region Weather and Its Impact on Building Design, Networking the Classroom for the Future, Reductions in Facility Operating Expenses, and How Facilities Managers Can Work Together to Solve Deferred Maintenance.

The weather on the Gulf Coast was absolutely beautiful and conducive to many special activities including a "Blast by the Beach" dinner, cocktails by the pool, Mardi Gras kick-off luncheon, deep sea fishing, a golf tournament, and more. The final banquet, featuring nationally acclaimed, singer-entertainer Paul Ott on Tuesday night, was one of the many highlights of the conference.

SRAPPA officers for the upcoming year are: President, Brooks Baker (University of Alabama at Birmingham); President-Elect, David Anderson (University of Southern Mississippi); First Vice President, Sam Polk (Tennessee State University); Second Vice President, E. Spencer Hall (Virginia Tech); Secretary/Treasurer, Ken Symonette (Tulane

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University); Vice President at Large, Ron Brooks (University of Memphis); Vice President for Long Range Planning, Hope Hammonds (University of Alabama at Birmingham); Junior APPA Delegate, Dave Girardot (University of NC at Wilmington); Senior APPA Delegate, Mike Besspiata (Georgetown College); Mike White, APPA Delegate Elect; and Steve Glazner, APPA Representative.

Nominations for APPA Committees and Offices are: C.R. Lyons—Awards and Recognition Committee; Mike Besspiata—Professional Affairs Committee; Darryl Crider—Information Services Committee; C.R. Lyons—nominated to run from the region for Vice President for Information Services; James O. Roberts was nominated to run for Vice President for Educational Programs.

The SRAPPA Board of Directors voted to provide up to \$1,000 in travel reimbursements to persons who apply for SRAPPA/APPA Institute Scholarships. This will apply to the scholarships for the Professional Leadership Academy also. SRAPPA will also extend to all Historically Black Colleges and Universities (HBCU) who are not currently members, a complimentary one-year trial membership effective April 2000. The current recruitment effort provided seven new institutional members which brings the total HBCU membership to 26.

Incoming President Brooks Baker gave the outgoing President Mike White special commendation for a job well done. Among Brooks' goals are the continuation of the SRAPPA website development, support of the APPA Strategic Assessment Model (SAM) throughout the association, and continuation of the HBCU recruitment/membership drive.

The 49th Conference is scheduled for October 7-10, 2000 in Nashville, Tennessee at the Renaissance Nashville Hotel and will be hosted by Tennessee State University. The

theme for the 2000 conference is "Facilities Management: Challenges and Opportunities in the New Millennium."

* * *

Midwest Region Becky Hamilton MAPPA Newsletter Editor

Over 200 MAPPA members descended upon South Bend, Indiana on September 26-28 for this year's regional conference. Those Irish eyes were surely smiling upon us—host Gary Shumaker and his staff from Notre Dame did a great job on the conference.

This year's theme was "Exceptional Services through Organizational Planning." The Program Committee offered a variety of topics and experience exchanges: Classroom Environment and Technology; Performing a Communications Audit; Energy Deregulation: A 1999 Update; Strategies for Organizational Improvement; Equipping to Manage Energy Deregulation; Master Planning—How Facilities Link to Academic and Program Needs; Discipline without Punishment—Treating Employees Like Adults; and Personal Financial Planning. Experience Exchanges were held for institutions grouped by size and broken down topically, covering such areas as: attracting/hiring good help; rate structures for physical plants; in-house construction/job order contracting; managing building records; and capital construction.

On Monday morning we were welcomed by Rev. Edward A Malloy, CSC, president of Notre Dame University. He was followed by Astronaut Mike Mullane who delivered the inspirational keynote address "Lessons from the Challenger—A Powerful Message for Leadership." Mullane gave us six points for improving our organizations:

1. A well-trained team is an investment in the future of the organization

2. Team members must communicate well and honestly to reduce mistakes
 3. Team members have a responsibility to speak up about potential errors
 4. Trust and communication go hand in hand
 5. Losing a sense of vulnerability will make an organization complacent
 6. Leadership—or self-leadership—is what makes a mediocre organization into a world-class organization
- The trade show was exceptional this year! With exhibits from a record number of 70 business partners, there was something for everyone. It was a great place for members to get reacquainted with their current business partners while getting to know new ones—all while learning about the state-of-the-art tools for their trade.

On Monday evening, the MAPPA participants (members, business partners, and their guests) were treated to an evening at the College Football Hall of Fame in downtown South Bend. The evening began with a tailgate party in the "Press Box" where we viewed portraits of Heisman trophy winners and other memorabilia, and ended with a walk through the Hall of Fame. We had the hall to ourselves that evening—a private party—and you could hear the "oohs" and "ahhs" from our members who were reliving favorite football moments from their alma maters and employers. A few people even tried their hand at tossing some passes!

Tuesday sessions were followed by a campus tour of the famous Notre Dame campus. It is truly beautiful—the lakes, the buildings made of light "Notre Dame" brick, the grotto, "touchdown Jesus" on the library, and the newly renovated stadium—all on the exceptionally well-maintained grounds. Gary and his staff can certainly be proud!

Continued on page 7



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The Tuesday evening banquet was the perfect ending to a successful conference. Overlooking the St. Joseph River, we were entertained by the talented Notre Dame Men's Choir.

New officers were sworn in and welcomed by the membership during the banquet:

- President: Terry Ruprecht, University of Illinois-Urbana/Champaign
- President-Elect: Phil Soule, The Ohio State University
- Treasurer: Clay Shetler, Goshen College
- Secretary: Ted Weidner, Eastern Illinois University

A special thanks to the program committee for providing us with tools that will make us better leaders, and to our hosts for showing us a great time. We all look forward to going to Ann Arbor next year!

Central Region

Ed Bogard

CAPPA Newsletter Editor

CAPPA's 47th Annual Education Conference and Membership Meeting was held in San Antonio, Texas, October 10-14, 1999, hosted by Jack Pellek and his staff at the Alamo Community College District. Aptly titled "A Learning Fiesta," the meeting was attended by 200 attendees who enjoyed important and timely educational presentations, topical roundtable discussions, exquisite food, excellent tours, sightseeing, shopping, and a grand time on the San Antonio River Walk.

The semi-annual Executive Committee Meeting was held on Saturday afternoon, prior to the start of the conference. On Sunday morning a potpourri of entertainment options were offered: the annual CAPPA Golf Tournament was held at the beautiful and challenging Cedar Creek Golf Course; a chance to try your skills at salt water fishing with a trip to Corpus Christi Bay; and an opportunity

to stretch ones hiking legs on the beautiful Enchanted State Park trails. Everyone enjoyed the opportunity to choose their own entertainment. Sunday ended with a pool-side margarita reception at the Radisson Hotel.

The conference got underway on Monday morning with the keynote breakfast attended by members, spouses, guests, and vendors. The educational sessions followed with topics ranging from interviewing techniques, through getting along with the media, to K-12 information. Each session was offered twice, and was crafted to focus on developing or enhancing the skills necessary for the day-to-day operation of the physical plant. Breakout sessions were provided to encourage interaction and a comprehensive coverage of the session topics. Lunch was served in the vendor booth area to facilitate interaction and dialog between members and vendors.

As is the tradition with CAPPA, an active and involved program was provided for the spouses and guests. It included ample shopping that featured a unique and trip to Fredricksburg, Texas where many unusual and exquisite shops are located. The highlight of the day was a dinner on the San Antonio River Walk that required the use of the river barges for transportation.

In addition, everyone enjoyed a tour of the Alamo Community College campuses that featured the Northwest Vista College campus. This is a completely new campus that was completed during the past year sufficiently to facilitate classes (no doubt the reason for Jack's gray hair). In addition, everyone was offered an opportunity to tour the new library and competition natatorium on the Palo Alto campus. As a special treat, members were treated to a behind-the-scenes tour of the Sea World of Texas facilities. The banquet was held at the Radisson Hotel Market Square and featured a real down-home, Texas-style barbecue, that included

Allen Damron and his special brand of Texas folk music.

The Annual Business Meeting was held on Wednesday afternoon. Art Jones, director of physical plant at Black Hills State University in Spearfish, South Dakota, was elected Third Vice President. Neil Morgensen, assistant vice chancellor and director of facilities at the University of Nebraska at Omaha, was elected Treasurer to succeed Art Jones.

CAPPA's 48th Annual Education Conference and Membership meeting will be held in Overland Park, Kansas September 21-26, 2000. The host will be CAPPA's First Vice President, John Skubal, Johnson County Community College. The theme for this new millennium conference is "Going to Kansas City." John and his staff are well on their way to planning an excellent educational program and opportunities to experience the many exciting sights and sounds of Kansas City. Following closely on the trail of Kansas City will be CAPPA 2001, hosted by Al Stoverink and Southeast Missouri State University in Cape Girardeau, Missouri. The following year, 2002 will be hosted by Art Jones and Black Hills State University in Spearfish, South Dakota.

Rocky Mountain Region

Harvey Chace

RMA President

I and the staff of UNM's Physical Plant were pleased to host the 1999 RMA Education Conference in Albuquerque from October 6-10. We emphasized our companion event, the International Balloon Fiesta, in selecting RMA's conference theme "Up, Up, and Away." We had two conference goals. First, we wanted to offer a soaring education program that included practical solutions to current, and pressing facility management problems. To meet that goal, we structured a 25 presentation curriculum that featured consultants of regional and national prominence.

We also tasked our sponsoring vendors and business associates to present 50 percent of our education program. Sponsor presentations took the form of generic, non-product-specific solutions to facility maintenance and construction issues of universal interest. The result was a rich menu of education opportunities for our attending delegates.

Our second goal was to provide an exciting backdrop of recreational and social events where our members, sponsors, and business associates could make new acquaintances, renew old friendships, and enjoy the exchange of ideas. The Balloon Fiesta mass ascension (5 a.m. bus ride on Saturday morning!), our Spanish Fiesta dinner, and the conference proximity to Old Town's shops and quays provided ample opportunity for recreation and "shop talk."

Several conference highlights deserve special mention. We began our conference education session with an extraordinarily stirring keynote speech delivered by Santiago Rodriguez, diversity programs officer for Microsoft Corporation. His message, thinking about diversity in its broader context (diversity of thought, perspective, and attitude rather than stereotyping people by skin color or ethnicity), set the stage for the openness and exploratory tone of the academic presentations that followed. Delegates were unanimous in their praise of Rodriguez' captivating description of his own family's search for the "promise of America." His following seminars on the interaction of the micro-cultures that make up our social quilt were standing-room-only.

Another stand-out presentation was the Johnson Controls seminar "Controlling Your Future," which focused on the high payback in long-term operating costs resulting from intelligent selection of a new building's utility control systems. A lively discussion ensued concerning the level of understanding among university administrators about long-term

(post-construction) operating costs. The attending Johnson Controls staff expressed an interest in helping APPA to give its members the subject orientation and demonstration tools required to make a convincing life-cycle-cost presentation to their administrations. I recommend that we also consider this core-competency for inclusion in APPA's Leadership Academy or Institute curriculum.

The Plenary Session of our Education Conference featured a speech by Brenda Albright, a former vice chancellor of the University of Maryland system and higher education consultant. Brenda spoke eloquently about the importance of engagement in accomplishing our stewardship goals. She emphasized that facility managers must form stronger alliances with faculty and staff to help us deliver the important facility renewal message. Her presentation was a perfect climax to our two full days of frank and illuminating discussions on facility managerial issues.

Our conference banquet provided a venue for honoring RMA's superior performers. Retiring President Charles Anderson presented Certificates of Appreciation to his board members and committee chairs. We also unveiled two new Annual Awards: The Authorship Award for the best article in the RMA Newsletter, and the Lee Newman Award for the most consistently supportive business partner. The first recipient of the Authorship Award was Val Peterson, the regions' most prolific humorist and raconteur. In honor of Val's extraordinary record of newsletter contributions, the award will be here-after known as the Val Peterson Award. The Lee Newman Award was presented to Jim Payne of NALCO Co. Jim was Lee Newman's partner in conference sponsorship events. The pair were longstanding company representatives APPA's regional conferences and to the APPA's National meetings. The award was presented by Lee's widow, Joan and their son, Jeff.

APPA President Maggie Kinnaman also used the banquet podium to honor Don Mackel, director of the University of New Mexico's Physical Plant, three-time APPA V.P. and 1993 APPA President. Don retired on November 1, 1999.

RMA begins the Millennium with a seasoned group of facility professionals at our key committee and board positions. I am grateful for the opportunity to serve with the new leadership team. The continuous improvement of education opportunities for our membership remains our focus. This year's association activity calendar culminates with the 48th RMA Education Conference in St. George Utah, September 23-26, 2000. Hosted by Craig Bohn and the University of Utah staff, this will be a "can't-afford-to-miss" event. Early conference registrations will allow Craig to make more timely and economical commitments for sponsorship, educational presentations, and recreational events. Let's all strive to firm up our St. George travel plans by July 1.

May the year ahead be both professionally and personally rewarding to RMA's higher education facility managers. Hasta la Vista!

Pacific Coast Region

Anna Weskerna

PCAPPA Newsletter Editor

Exciting Las Vegas, Nevada, was the site of the 48th annual meeting and educational conference, "Rolling into the 21st Century," hosted by John Amend of the University of Nevada, Las Vegas. The conference was held in the beautiful Rio Suite Hotel and Casino, known for its spacious convention center, comfortable rooms, and many elaborate restaurants, lounges, shops, shows, and (of course) "gambling sports."

The conference was well attended with over 230 registrants and 25 vendor booths. The financial support of

the business partners is a critical part of the conference, and we are fortunate to have some very generous and dedicated partners.

Tom Hinton, chief executive officer of the Customer Relations Institute, a San Diego-based international training and consulting firm, delivered a very spirited keynote address on "The Leader's Role." This was followed by Tom Harkenrider who presented an excellent session on Performance Excellence Measurement Using Baldrige and APPA Strategic Assessment Model (SAM).

The attendees were honored to have Maggie Kinnaman, APPA President, and E. Lander Medlin, APPA Executive Vice President, present information on APPA issues and updates.

The very informative educational sessions included topics such as "UCI Central Generating Facility Improves Efficiencies and Reduces Nox" by

Fred Bockmiller and Paul Howard of UCI; "Developing Grounds Staffing Guidelines" by Dennis Swartzell of UNLV; "Multiple Chemical Sensitivities—Cooperative Applications to a Volatile Issue" by Lawrence Tirri of UNLV; "Facilities Design through Design Charette Process" by Don Caskey and Hildo Hernandez of CCA/CSSUN; "Safety Training Can Be Fun" by Pep Hazlett of UNLV; "Utility Aggregation and Finance" by Greg Eden of ISES; "How to Partially Discharge Electricity Analysis" by Matt Tedder of Hampton Tedder Electric; "Facilities Condition Analysis" by Dan Harrison of ISES and "Positioning your Department for Success: Bringing Strategic Direction to Facilities Management" by Chris Christofferson of Stanford University. With the beautiful setting, marvelous food, informative educational sessions, and diverse group of attendees—the conference was a big success. Thanks to the wonderful host

John Amend and his great supportive staff for a fantastic job!

Increased educational opportunities and revision and implementation of the PCAPPA strategic plan are two major areas PCAPPA has been working on over the past year and into the next year and beyond. With the assistance of the Educational Task Force, chaired by Stephen Quock from San Jose State University, PCAPPA has awarded numerous scholarships the past year to both APPA Institutes and PCAPPA conferences and workshops, and will make every effort to continue to provide financial support to its members who are interested in receiving these excellent educational opportunities.

Next year's conference will be held in Long Beach, California, hosted by Cal State University, Long Beach, with Rob Quirk, and Cal State University, Northridge, with Hildo Hernandez. Their topic "Catch the Wave of the

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Future: Current Issues in Facilities Management" will undoubtedly be one of the best.

Walter S. Watkins, director of physical plant for the British Columbia Institute of Technology, is already making arrangements for the PCAPPA 2001 educational conference in Vancouver, British Columbia, Canada.

Through its dynamic leadership and continued support from the members and business partners, PCAPPA is continually growing both in size and educational opportunities. This year's President, Jim Hansen, physical plant director, California State University, San Bernardino, already has many items on his agenda to accomplish during his presidency. I look forward to working with him and the Board for another great year.



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From Jack C. Dudley, PE, APPA Member Emeritus, Editor and Co-author of the APPA: Association of Higher Education Facilities Officers publication *Custodial Staffing Guidelines for Educational Facilities*, first edition and Co-author of the second edition. Software uses methods developed for the book.

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Australasian Region

Neville Thiele

AAPPA Board of Directors

The AAPPA Annual Conference was held in Wellington New Zealand, September 26 to 29 in conjunction with the Conference of the Association for Tertiary Education Management (ATEM). Victoria University of Wellington and the City of Wellington extended a warm welcome to all attendees. The conference was held in Wellington as part of the celebrations to mark Victoria University's centenary in 1999.

The conference theme, "A Balancing Act: Looking Ahead, Learning from Experience," emphasized the past hundred years of tertiary education, to assist the profession in devising strategies to anticipate and meet the challenges of the next century. Part of the balancing act is drawing on the best of this culture of the past to help craft the culture of the future.

AAPPA's conference stream included papers, workshops presented by APPA's business partners and AAPPA members. Topics that were covered included: New Campus Planning, Condition Audits, Campus Planning and Development, Partnering and Value Management, Packaged Works Contract, Tendering of Engineering Services and Strategic Asset/Project Management, Cleaning Contract Review, Performance Contracting, Facilities Management and the Balanced Score Card, Security Systems. Two workshop sessions on Outsourcing/Contracting Out and Benchmarking Initiatives in Facilities Management were also incorporated. It was a great learning experience for all attendees—much was gained and many thoughts were exchanged.

AAPPA's year was best summarized by President Russell Candy in his report to the outgoing Board meeting held during the Wellington conference: "This year was always going to be a year of consolidation after the many directions that were established

by the previous years Board and President."

Membership this year remained steady. An immediate benefit from our business partners were a number of articles authored for the newsletter bringing a broader perspective to the newsletter.

Education this year again provided opportunities for our members to obtain, access, and participate to advance their learning:

- Facilities Management Program at Little Bay had record participation this year
- The workshop on Space Management and Space Utilization hosted by the University of New South Wales was a model for future workshops
- A workshop to communicate the understanding of process to implement a Balanced Scorecard approach to enhancing Facility Management Strategy was arranged and a report on outcomes was presented as part of the Wellington Conference
- Information Services maintained its contribution for members by managing AAPPA's web page, AAPPA-List, annual Benchmarking Survey compilation and production of quarterly newsletters

AAPPA has many professional facility managers, but we are extremely proud of the achievement of Sam Ragusa, Griffith University, in being recognized for his contributions to our profession. Sam's ultimate accolade was being awarded the APPA Meritorious Service Award. Congratulations to you Sam!

Australasian APPA, like all regions, face the same challenges expressed by the APPA President, Maggie Kinman: "Members have a choice and if APPA wants to retain members it must deliver on the services that members want." 🙏

The Failing Campus Infrastructure: Is It Too Late?

by E. Lander Medlin

Despite the current significant trend of accumulated deferred maintenance (ADM) backlogs at our colleges and universities, it is never too late to reverse or correct the condition of our campus facilities.

However, this is *not* just my opinion based on anecdotal experience. There are several key publications that have proven helpful to me and the field of facilities management in providing background and context, research data and statistics, policy recommendations and successful approaches that some of our colleagues have taken to address the ADM dilemma.

The state of the industry with respect to ADM was best researched and outlined in the landmark study, *A Foundation to Uphold: A Study of Facilities Conditions at U.S. Colleges and Universities* written by Harvey Kaiser and Jerry Davis under the auspices of APPA, the National Association of College and University Business Officers (NACUBO), and Sallie Mae. This book represents an extremely important research effort that updates the 1988-89 seminal piece, *The Decaying American Campus: A Ticking Time Bomb*. The message is clear:

The estimated \$26 billion in total costs to eliminate ADM, of which \$5.7 billion are urgent needs, represent a threat to the capability of higher education facilities to support

the missions of their colleges and universities." And, this is up from the original study in 1988-89 that quoted \$20 billion and \$4 billion, respectively.

You might ask, "So why is this happening and, just as importantly, why now?" A wide range of factors have influenced the enormous growth in today's colleges and universities during the past 50 years:

- The G. I. Bill of Rights in 1944 brought WW II veterans to the college doorstep
- Sputnik and the space race in the late 1950s spawned federally funded science and technology research at our colleges and universities
- The national birth rate surged in the 1960s and 1970s, adding "baby boomers" in stunning numbers. The statistics bear this out:
- Total higher education enrollments increased more than six-fold from 2.3 million in 1950 to 14.2 million today
- Instructional staff increased from 176,000 in 1950 to 823,000 in 1994, a growth of more than 460 percent
- The total number of institutions grew by more than 100 percent from 1,852 in 1950 to 3,768 in 1995
- Campus space increased from 570 million gross square feet (GSF) in 1950 to approximately 4 billion GSF in 1994
- More than 80 percent of today's total campus space was built before 1980
- Higher education would have to invest more than \$500 billion to replace its buildings, fixed equipment, and infrastructure

However, by the late '70s and early '80s, inflation, escalating energy costs, the questionable quality of new construction and major renovations,

and the need for facilities reinvestment in its present infrastructure inventory were the backdrop to an approaching national recession, thereby increasing the competition by facilities for financial resources with all of the other institutions' programmatic areas. The many changes in the higher education community during the late 1980s and early 1990s have served to further exacerbate the problems, the least of which were:

- Rapidly escalating tuition increases
- Increased square footage of space to operate and maintain
- Major budget reductions
- Dozens of new, unfunded mandates from governmental regulations
- Increased demand for the use of new technologies in classrooms, laboratories, offices and, in particular, dormitories

They say that the only thing constant is change! That seems to ring true with the ADM problem. However, the change continues to go in the wrong direction—from bad to worse! Interestingly enough, I liken this constancy of change to what the Soviet cosmonaut Krikalev must have experienced when he left Leningrad in 1991 for a 313-day journey in space. Almost a year later, he returned to a city no longer on the map and to a country that no longer existed. So change is ever present and higher education is not immune. In fact, all of higher education is under public scrutiny and increased public accountability.

But equally important for us all to realize, our facilities, instructional educational and general (E&G) and auxiliary enterprises alike, play an integral role in the success of the academy as a whole. This has been generally acknowledged for

Lander Medlin is APPA's executive vice president. She can be contacted at lander@appa.org. This article is reprinted with permission from the December 1999 issue of College Services Administration, published by the National Association of College Auxiliary Services (NACAS).

centuries. I only have to reference Thomas Jefferson's description of his concept of the "academical village" and the importance he placed on the environment. His idea was to create an institution that integrates learning with its physical environment. He emphasized the importance of creating physical spaces that are "inviting, free of den and dirt, filth, and fetid air." This is indeed a challenge with the pressure of today's rapidly changing environment and technological growth, and all with fewer resources.

Let's face it, facilities represent the largest capital investment of a college and university institution—over a \$500 billion investment. Put in perspective, this investment amount is close to four times greater than the combined endowments of all institutions of higher education. Although cliché, it is unfortunately true that the "bomb" is still "ticking" for at least half of our institutions. In some cases, it may be ready to "explode." That is the bad news. However, the good news is that many more schools (during the 1990s) actually report a decrease in their ADM, primarily in the private, four-year institutional category. To what do they attribute their success? That too became clear:

- Senior institutional officers' leadership and commitment
- Flexibility in budgeting practices and access to accumulated reserves
- Undertaking strategic facilities planning based on key data and analysis of their facilities' condition to prioritize needs
- Commitment to the goals of competing more vigorously to attract and retain students, faculty, and staff

It is equally clear that we can all benefit from these approaches.

As APPA studied the ADM problem, we discovered several important public policy implications that warrant attention here. The salient points of these public policy implications can be captured underneath four broad categories as follows:

1. **A Foundation to Uphold:** We must assist our campus leadership to:
 - develop policies addressing facilities' conditions and adequacy
 - provide broad support for facilities' stewardship
 - focus resources for facilities' reinvestment
 - recognize the impact, potentially the threat, of unsatisfactory facilities' condition on institutional missions
 - understand that competing demands on institutional resources has caused a fractious approach

As the Pogo cartoon depicted so poignantly, "We have met the enemy and he is us!" We can be our own worst enemy; so we must first look within and take personal responsibility for change if we are going to seriously begin addressing the ADM problem at our individual institutions.

2. **Sustained Institutional Commitment to Action:** The key elements of which are:

- Institute comprehensive strategic facilities planning
- Integrate the approach to financial and facilities management
- Establish dependable funding sources and flexibility in institutional expenditures management
- Reverse the decline in operations and maintenance funding levels
- Seek external sources for ADM costs exceeding 5 percent Current Replacement Value (CRV)

Aptly said by one Naval officer, "We cannot change the wind, but we can surely adjust the sails." Adjust we must; and quickly, if we are to reverse this downward spiraling trend.

3. **Roles and Responsibilities of the Higher Education Community:** Its constituencies and corresponding professional associations:

- roles are interdependent
- should have distinct roles in shaping policies
- should have preserved and balanced roles in the decision-making process
- provide an active leadership role
- assure consistent data collection exists

- set guidelines, standards, and/or benchmarks for quality improvement

4. **Facilities Prepared for the 21st Century:** If our facilities are to be prepared for the future, it will require:

- dependable and integrated funding sources for capital reinvestment
- understanding the "learning" environment's affect on the "physical" environment
- translation of accurate data into useful information to generate knowledge
- recognition and anticipation of the demand for electronic delivery systems and information technology

To paraphrase Bette Davis from *All About Eve*, "Buckle up, it's going to be a wild ride!" And that it is, but we must be ready to effectively ride the wave of change.

A number of institutions have become more innovative and creative in their approach to the retirement of their ADM. APPA's book, *Successful Funding Strategies for Facility Renewal*, authored by Matthew C. Adams, describes in a detailed case study format several practical approaches that have been undertaken. Highlights of these case studies are as follows:

- Ability to exercise autonomy in the dispensation of the total base budget in plant by having the authority to reinvest base budget savings and/or exercising strict adherence to maintenance standards for all new construction and renovation projects
- Authority granted for reinvestment of annual energy budget savings
- Proactive educational program for institutional administrators and trustees
- Instituted special student fee in the tuition amount
- Received matching state loans for specific energy projects
- Received matching state dollars for university-generated dollars over

Continued on page 14

FACILITY CONDITION ANALYSIS • elevator engineering • infrastructure: utility analysis • energy systems: evaluation and design • power plant: cogeneration analysis • operations and maintenance analysis • construction management • deferred maintenance / capital renewal management • security analysis

• facility condition analysis • elevator engineering • infrastructure: utility analysis • energy systems: evaluation and design • power plant: cogeneration analysis • operations and maintenance analysis • construction management • deferred maintenance / capital renewal management • security analysis • facility condition analysis •

ELEVATOR ENGINEERING

• operations and maintenance analysis • elevator engineering and maintenance analysis •

elevator engineering •

INFRASTRUCTURE: UTILITY ANALYSIS

operations and maintenance analysis • elevator engineering and maintenance analysis •

elevator engineering • infrastructure: utility analysis • construction management •

infrastructure: utility analysis and maintenance analysis • construction management • infrastructure: utility analysis • construction management • deferred maintenance / capital renewal management •

ENERGY SYSTEMS: EVALUATION AND DESIGN

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energy systems: evaluation and design • deferred maintenance / capital renewal management •

DEFERRED MAINTENANCE / CAPITAL RENEWAL MANAGEMENT

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\$20 millions based on comprehensive facility/energy audits and buy-in of the importance by the state to protect investment in campus facilities

- State legislature approved a bond issue

These practical approaches represent significant success since they collectively produced over \$200 million annually toward the retirement of ADM for eight institutions.

"The physical environment for colleges and universities is an integral, inseparable part of the educational experience, in fact, mission-critical to the conduct of instruction, research, and other student activities that take place in the buildings," according to Rod Rose in *Charting a New Course for Campus Renewal*. In fact, we must become much more effective in tying our facilities' needs and issues to the

core strategies and goals of the institution, as I am convinced that facilities are "mission-critical" to both the short- and long-term objectives, albeit survival, of our institutions.

Second, the cost of facilities' ownership is an important and integral part of determining the cost of doing business (*Charting a New Course for Campus Renewal*, p. 13). We must recognize the strength and positive use of terminology that tie long-term financial and facilities planning together, such as facilities stewardship, asset management, facilities portfolio equilibrium, or return on investment.

Third, a facilities condition audit must be performed to provide useful and credible data and information to our decision-makers about existing facilities conditions and their anticipated life cycles. Otherwise, our facilities will indeed fall short of supporting educational objectives. A facilities audit is a consistent, tangible

tool for communicating to all levels of the diverse audiences; especially since a significant allocation or infusion of funds usually demands consensus.

In closing, "Where determined leadership placed deferred maintenance as a priority on its agenda, action and positive results followed. However, . . . there is a growing gap between those institutions with the will and the ability to find the means to reduce deferred maintenance backlogs and those that have taken little or no action. Much more must be done to encourage . . . campus leadership and supporters of higher education to develop public policy goals and allocate sufficient resources to restore facilities to acceptable conditions" (*A Foundation to Uphold*, p. 53).

YES, we have a failing campus infrastructure; but **NO**, it is never too late to take action to reverse that trend and put your institution's facilities back on a successful and positive track! 🏗️

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Continuous Improvement and Resistance to Change

by H. Val Peterson

How do you feel about change?

As a general rule only about 20 percent of the general population are "change-friendly." They are the individuals who are willing to embrace change and perhaps even be an advocate for change. Another 50 percent of the folks are "fence sitters." They assume a neutral position, trying to figure out which way to lean. These people are not hostile to change, but they are not willing, without considerable prompting, to make change happen. The other 30 percent are the "resisters." They do not like change and will be antagonistic toward change and often make deliberate attempts to thwart change.

Assuming that employees within a facilities management organization follow typical norms the same percentages will exist. Some will embrace change, others will resist change, and the majority will adopt a "wait and see" attitude.

The term "continuous improvement" implies change. If there is a desire to improve a process, alter an attitude, or enhance an end product, some form of change must take place. Because we live and function within a rapidly changing world, change is inevitable. Technological improvements demands change. Technology is advancing so fast that change occurs in the "way things are done" at a staggering and ever-increasing pace. The world is changing. Changes are taking place within your institution. And changes

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are taking place within your facilities management organization.

Rather than dwell on the concept of change, perhaps it is more productive (and less threatening) to think in terms of improvement. And in a rapidly changing environment, the concept naturally becomes a continuously improving process.

In today's fast-paced world, the most successful organizations—including those that manage facilities—are committed to doing well those functions that are basic to the organization. They recognize that since everything around them is changing, they too must change or their methods, processes, and products will become obsolete. Therefore, continual improvement becomes the guarantee of survival and success.

Organizations that are successful focus on excellence and quality. They recognize that their products and services must be of superior quality, deliver good value, and improve with every iteration.

When an organization correctly implements quality improvement programs, everyone wins. The customer is happy with the product or service, employees take pride in and feel better about their jobs, and management is motivated to implement further improvements rather than just "putting out fires."

So if everyone wins, why are not all organizations involved in programs and initiatives that lead to improvement, excellence, and quality?

It seems to me there are at least four reasons why some organizations have not joined the continuous improvement movement.

1. Unaware of benefits. Some organizations do not seem to

understand the benefits received from implementing such programs and initiatives. If things are going pretty well, people may not be looking for additional improvement. The old saying, "If it ain't broke, don't fix it," seems to be the company motto. These organizations are comfortable in their complacency.

2. Improvement requires change. To get better, change is necessary. Many times, management is not willing to challenge the status quo. They let the "resisters" and "fence sitters" (who are the majority) reign over the "change friendly" minority. The barrier to change seems to be impenetrable. The battle cry, "we have always done it this way," carries the day.

3. Unconcern. There are organizations that know all about quality, excellence, and continuous improvement but they just don't care. They are convinced that no one else really cares whether or not changes are made. And even if they did change, would anyone notice?

4. Too busy putting out fires. Some organizations are so focused on solving daily problems and dealing with emergencies that no time is left to consider alternatives. Their crisis mode of management demands so much attention that there is never any time left to analyze the cause.

Organizations that resist change (for whatever the reason) may not survive. As their methods, programs, products and service become outdated, outmoded, obsolete, and antiquated, they are likely candidates for extinction much like the dinosaur. Some will surely fall by the wayside and be replaced by firms and organizations that are proactive in delivering quality products and services.

Well, is the situation hopeless for those organizations that have yet to "see the light" and be converted to receive the salvation offered by continuous improvement? Not really. There are some steps that can be taken to improve quality. Typically, organizations must walk before they run. An old Chinese proverb says, "A journey of a thousand miles must begin with a single step." There are several recognized measures that may be followed in order to improve quality within the organization.

1. Decide to improve. This is perhaps the most important step because it is the first one. Seize the opportunity to pursue quality and don't procrastinate. Do it today.

2. Measure your success. It is extremely difficult to improve something you can't measure. If you want to improve your customer satis-

faction level, you must first know your current level of customer satisfaction. If you want to improve your work order system, you must know what elements are creating the problem and how changes can be monitored.

3. Get comfortable with change. Understand the people-problems associated with change. Understand the dos and don'ts. People resist change (even the change-friendly types) when they don't understand the need for change or fear they will lose something of value. It is important, therefore, to involve those affected by change in the program.

4. Keep raising the bar. Obviously, continuous improvement is not a one-time effort. No matter how successful you are today, you will secure your future only by continuing to raise your standards.

5. Keep learning about quality improvement. Study successful organizations and benchmark with your peers. Find out what works and what doesn't work. Attend workshops, seminars and quality improvement programs. Read. Network with your peers. Ask questions. Keep an open mind. The more you know the more effectively you can compete.

For those interested in making change, your job is to justify the struggle and to aim your people toward something special. Plato said, "Those having torches will pass them to others." It's your role to carry the fire and pass the torch. Your survival and that of your organization may depend on it. 🕯



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Getting Started on Your Environmental and Safety Programs

by Santo Manicone

It's been said that nothing is more valuable than a clean and safe working environment. This theory has been established for a long time and according to some critics, it seems to fall short within higher education facilities. As a consultant for over 16 years in the fields of environmental and safety engineering, I have worked with a number of higher education facility directors that put forth a valiant effort to achieve and maintain general compliance. These directors are faced with limited employees, budget, and managers, and are responsible for several dozens of departments and duties (not including faculty staff). What these critics don't consider is the actual population size of the facility that is being reviewed. Considering this, a facility director's compliance program outperforms all other industrial classification for a facility of comparable size and number of departments. These individuals should be commended on their job, keeping the facility in compliance and in running condition. We should continue our efforts for compliance while taking the time to respond directly to the critics who do not understand the complex workings of a higher education facility.

Santo Manicone is president of Facility Support Services LLC, a national environmental and safety engineering consulting firm with offices in Connecticut and Illinois. He has worked and assisted higher education facilities for over 16 years achieving federal and local compliance. He can be reached at support@snet.net or by calling 203-288-1281.

When APPA approached me to be a columnist for this publication, I could not resist the opportunity to once again assist the facilities profession that I have supported and worked within over the years. As the writer for three years for *The Regulatory Reporter*, an environmental and safety newsletter supported by APPA, I focused on making the newsletter a great tool for facilities directors to keep up-to-date on regulatory issues effecting their future decisions. Continuing this tradition with this column, in my commitment to all facility directors with a limited time schedule, I will focus on the big picture rather than the little details concerning safety and environmental issues. In order to keep facilities directors on the cutting edge of compliance, I will set forth the larger framework in upcoming issues to support them in the regulatory arena. It's been said that some people entertain ideas while others put them to work. We need to put strategic, innovative ideas to work in the facility organization to stay ahead of upcoming compliance issues. I hope that these future issues will assist all directors to expand their outreach and training programs.

OSHA and EPA officials have many ideas to improve workplace safety and compliance in the next century. They are all geared toward achieving one goal—saving the environment and sending every worker home healthy every day. That's not a short-term proposition, but a longterm goal. It requires daily diligence and ongoing commitment from facility directors in the face of competing priorities for time, energy, and resources. In striving towards these goals, I've discovered that a broad compliance approach

works better than a narrow one. Therefore, when it comes to standard setting, I will favor performance standards over specification standards. A specification approach is inherently limited, narrowly focused, and inflexible.

Facilities directors should try to establish a performance standard which provides the flexibility to accommodate change, to incorporate particular situations, and to fit the culture of individual facility activities. It has been said that the new regulations by EPA and OSHA for the future will rely on a systems approach. It's impossible for officials to tailor fit standards for every conceivable hazard and type of facility. These new approach's will address problems within a practical framework for the job and processes being performed. Facility directors must demonstrate that they understand what makes sense, what's feasible, and what's acceptable for their facility. First and foremost, they must establish a framework for environmental and safety programs. That's my top priority for these upcoming issues. When facilities take a dedicated approach by establishing a safety and environmental program, they do a better job of staying in compliance.

For a number of facilities, these established and upcoming federal standards are only a beginning. A first step towards compliance is by being pro-active. Whether you are a small or large facility, you should try to frequently inspect the work site and fix the hazards that are identified. You don't need enforcement actions from OSHA or EPA to direct every step—this will cost time and money. Once a facility sees the benefits that a safety and environmental program bring, they become believers. Afterwards, it

is tough to dispel the myth that safety and environmental programs pose added burdens and offer no benefits. Establishing some type of compliance program is good for workers and the facility that they work in. That's common sense. Moreover, we need to make sure that this effort takes place through out all departments.

In establishing any type of program, you have to consider an array of approaches that will help your agenda. It is important to assess the effectiveness of the strategies that are going to be put in place. Try to encourage employees and other department heads to adopt progressive systems that keep the efforts of compliance on track. Creating this type of awareness is critical to designing a system that works. The challenge for the facility director is to institutionalize excellence, to foster a culture where everyone accepts responsibility for the programs and pursues it on a

daily basis. If you can achieve a small portion of this rule, you are making a positive effort for compliance.

In that regard, let me say a word about performing a self-audits or third party audit program. I have found out that if a facility that performs an audit and tries to address a problem identified in an audit has proven favorable during any surprise or scheduled inspection. Federal agencies believe that self-audits that lead to corrective actions represent good faith on the employer's behalf. Self-audits and audits conducted by private consultants offer a practical way to step back from the press of everyday business to identify potential problems for their facilities. In addition, those who take this step of self-audit are commended on their actions to identify and fix these hazards. Federal agencies want to praise, not punish, those facilities that put the effort into these compliance audits. Facilities who do not

respond or perform these audits are found to be on the other end of the compliance enforcement program.

In closing, as we begin the next millennium, facility directors need to be constantly aware of the need to grow, to change, and to evolve in the environmental and safety programs. It's been said that the road to a successful program is always under construction. So we must be prepared to patch potholes, to clear new ground, overcome obstacles and tackle tough terrain to get where we're going. In particular, we need new strategies to deal with emerging hazards.

I hope that the next upcoming issues can get you started to further advance your facilities environmental and safety programs. If you have questions concerning the information in this article or need assistance in your facilities compliance program please email me at support@snet.net for a response. 🏠

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Assessment and Continuous Improvement

by David A. Cain and Douglas K. Christensen

“In order to know where you are going, you have to know where you have been.” This truism has been expressed for many years, for all professions, throughout all disciplines and cultures, and is a common sentiment in all countries. It represents the simplest concept of assessment and continuous improvement. To illustrate this point, picture an imaginary solid line of learning that extends into infinity, then impose a round black dot on that line. This is your assessment point, or “where you have been.” Then impose another round black dot somewhere on the continuum beyond the original assessment point. This represents your forward change point, or “where you are going,” through the measure of continuous improvement.

Figure 1. Learning Line



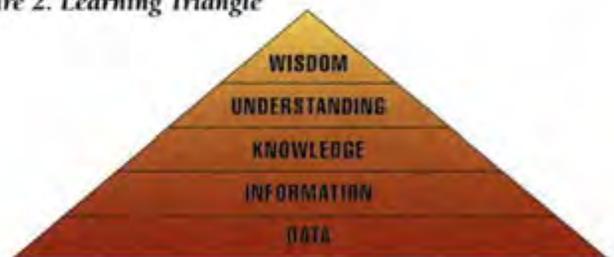
Assessment

Assessment is not an end in and of itself, but rather a strategic tool for continuous improvement. Assessment is a process whose power is cumulative. Assessment can be an isolated snapshot to monitor the pulse of the operation or organization. However, continuous improvement is more effective when it entails a connected series of assessment activities un-

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dertaken over time. Assessment places the importance of monitoring the progress toward the intended goals, in the pursuit of continuous improvement. Assessment, therefore, is an effective vehicle that collects data, can be collated into information,

Figure 2. Learning Triangle



then extrapolated into knowledge, transformed into understanding, and finally conveyed as wisdom.

Assessment recognizes the value of information in the process of continuous improvement. For this to be useful, the data must be connected to the issues that people really care about as well as the elements of the organization that need change.

Assessment is not always easy and can be time consuming for the facility professional. Assessment can also be both strategic and non-strategic. For example, if an assessment for change leads to the improvement that replaces the original function and is a part of ongoing replacement, it is *not* considered to be strategic. Conversely, those assessments that *do* significantly alter and improve the function *are* considered strategic in nature. Organizational change and learning occurs when you move forward from the point of assessment, through change, to that point on the learning continuum toward continuous improvement.

Continuous Improvement

Continuous improvement by definition is the ability to constantly adapt to change by using information, and to

constantly evaluate the environment to ensure effectiveness. Continuous improvement requires systematic evaluation to measure the progress and the outcomes of the your changes.

Continuous improvement requires dedication and a willingness to be guided by objective information sources. Compare the relationship between assessment and continuous improvement. To compare the relationship between assessment and continuous improvement: If assessment is considered the "cause," then continuous improvement is considered the "effect."

The key question for assessment and continuous improvement then becomes, "What causes you to make assessments?" Many in the facilities profession prescribe to the adage, "If it ain't broke, don't fix it." Because we do not like change, we don't have (or make) time for change—we just want to manage.

Higher education facilities management is well represented of possessing good managers. We manage the what, how, when, and where extremely well. These skills and activities to control it, direct it, budget it, plan it, and complete it on time are essential management skills for all facilities professions.

However, leadership is the ability to view this situation differently, and asks the Why question. Leadership in facilities is understanding that continuous improvement is achieved through assessment. Leadership is accomplished by using a skillful technique to assess a problem and then artfully motivating people through the process of change to a new level of effectiveness. Facilities leadership empowers people to align

their performance with that of the organization's goals, mission, and vision. When this is done correctly it is enormously rewarding and personally satisfying for the individuals involved

What Does This Have to Do With SAM?

Following four years of effort, APPA unveiled its publication, *The Strategic Assessment Model*, at the 1999 Educational Conference & 84th Annual Meeting in Cincinnati, Ohio. The Strategic Assessment Model (SAM) combines self-assessment, continuous improvement, and strategy into a powerful and useful strategic tool for the facility professional. SAM represents a blend of the Kaplan/Norton balanced scorecard approach, the national Baldrige Award criteria, and MIT's Learning Organization Model. These and other related topics will be featured in the March/April and June/July issues of *Facilities Manager*. Future SAM deliverables will include a workbook, greater SAM presence on APPA's website (www.appa.org/sam), annual and regional implementation training, and much more.

Finally, while some might argue differently, APPA's Strategic Assessment Model Task Force believes that in order to have good strategy (vision and mission), you need to have continuous improvement. And in order to achieve continuous improvement, you need to have good assessment! Stay tuned, and start putting your assessment pieces together in the continuous improvement puzzle. 🏰

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COVEY WORKSHOPS IN THE MIZZOU CAMPUS FACILITIES' WORKPLACE

“The very essence of leadership is that you have to have a vision.”

— Rev. Theodore M. Hesburgh, C.S.C., president emeritus of the University of Notre Dame, world-renowned educator and humanitarian.

by Jon Stemmler

Traditionally, effective leadership has been the downward exercise of power and authority. In both the organization's tasks and in its human dimensions, business depended on a *transactional* quid pro quo relationship between leaders and followers. Such leaders were seen as offering jobs, security, favorable ratings, and more, in exchange for a follower's support, cooperation, and compliance (Owens, p. 121).

This old model of leadership, however, is on the outs. Today's understanding and practice of leadership is going through great upheaval. Into the new millennium, organizational leadership continues clearly toward a *transforming* leadership style, defined generally as “developing respect and

concern for followers—the ability to see them as powerful sources of knowledge, creativity, and energy for improving the organization” and thereby the quality of life for all (Owens, p. 125).

Transforming leaders are concerned with followers' motives, their higher needs, and, unlike before, now seek to engage the whole person. Today's leaders are participating with followers in relationships of “mutual stimulation” and “elevation” that convert followers into leaders who, with intelligence and creative management, are becoming do-the-right-thing moral agents for their organization.

Evoked, then, in the 1990s and developing yet today, has been the concept of transformational, moral leadership, a genuine sharing of mutual human needs, aspirations and values in organizational work that emerges from, and always returns to, fundamental wants and needs, aspirations, and values of followers. There is a shared human mission, a sense of mutual purpose; a covenant of shared values are interwoven with the daily life and practices of ordinary people on the job (Owens, pp 125-127).

It's the way that Alan Warden, assistant vice chancellor of facilities at the University of Missouri–Columbia, leads

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Campus Facilities, the largest administrative division in the four-campus University of Missouri System.

The leader of some 650 personnel in energy management, construction, maintenance, custodial, landscape and administrative services, Warden began two years ago to implement a five-year, management-employee, partnership-training program. His plan provides comprehensive training that includes coursework for job and core classification requirements, safety training and, importantly, elective courses consisting of technical and personal development and growth subjects.

Prior to implementing a training plan, Warden participated in a five-day, "7 Habits of Highly Effective People" workshop based on Stephen Covey's best-selling motivational book of the same name. The workshop was presented by the Franklin Covey organization through APPA as part of its Institute for Facilities Management and which is now part of APPA's Leadership Academy.

Warden viewed the workshop as tailor-made for his training program. Billed as providing a "foundation for lasting change and effectiveness at the personal, interpersonal, managerial, and organizational levels," it offered exciting transforming common sense concepts that would not only help his CF followers to be more communicative and effective on the job but, as workshop presenters claimed, would also "reinforce and promote life balance, direction and inner peace" in other aspects of their lives.

Warden came away from the experience the way most participants do: With the idea that the Covey workshop consists of a tour de force of workable common sense philosophy and practice, but organized, presented, and focused in such a way that enables participants to distinguish between what is truly meaningful, efficient, and productive and what is not. Workshop participants are left with the means to conceptualize and better facilitate a clearer understanding of self, the place of oneself in the world and working together with others in that place, which on Warden's immediate agenda were the workplace, and the university community served by Campus Facilities.

"The Covey concept is something very useful and important for interpersonal communications and relationships and

working as a team," Warden said. "It's not an industry-specific type of training. It's nothing we are or should be experts in, but it is a very good personal growth tool."

Covey Comes to Columbia

Due to dollar limitations, the expense of Covey leadership training is prohibitive for most public, not-for-profit organizations. Its market has been mostly high-powered corporate executives. That changed, however, for Campus Facilities when APPA arranged to use its own trainers to teach the Covey training in a university setting.

From a list of Covey-trained APPA instructors, Associate CF Director LeRoy Bealmear, Kate Walker, Campus Facilities' coordinator of training and development, and Don Guckert, who leads CF's Planning, Design and Construction department, selected Lander Medlin, APPA's executive vice president, and Charles Jenkins, a former APPA president and now a facilitator there, to train 70 CF managers. Workshops were scheduled for mid-May and late June 1999 on the MU campus in Columbia.

Medlin, a former facilities administrator at the University of Maryland and Jenkins, a retired physical plant director at St. Mary's University in San Antonio, Texas, were ideally suited to train facilities workers. Both knew of Warden and his leadership from APPA

conventions, and of Guckert from his Planning, Design & Construction deanship and faculty position with APPA's Institute for Facilities Management.

Both Medlin and Jenkins, as others before them, in 1997 went through intensive training in San Francisco to become Covey presenters. And although following this exposure both presented Covey workshops in APPA's IFM setting, the workshops at Campus Facilities at MU, Columbia would be the first-ever taught on location and tailored for a facilities management organization.

Guckert helped to secure Medlin as a workshop presenter with Jenkins, while Bealmear and Walker took on the task of assisting them in molding the class from a physical plant perspective, while retaining the diversity needed to capture fully the personal and interpersonal principles and qualities of Covey training.



Tom Flood (blue shirt, white stripes), superintendent of Landscape Services at the University of Missouri-Columbia, clarifies his understanding of Covey workshop Principle #6, "Be Synergistic," with facilities project managers and supervisors, left to right, LeRoy Bealmear, Associate Director Campus Facilities, John Neal, Manager, Construction Management, Larry Hubbard, Project Manager, Sam Sullivan, Supervisor Skilled Trades, and Phil Shocklee, Associate Director of Campus Facilities. In the background, Energy Management and Management Services managers go about their group study.

"Knowing that both Charlie and Lander were former facilities administrators helped greatly," Bealmear said. "Our goal with the Covey '7 Habits Workshop' was to have it presented from the viewpoint of facilities management operations. We wanted it presented the best way possible so we could use it in our operations: by someone with whom we could identify presenting ideas and concepts we could recognize."

Bringing Covey principles to focus on particular operation was not without concern.

"By tailoring and specializing workshops you lose a diversity of views," Jenkins said. "It helps to have a diversity of thinking that a generalized workshop affords and generates. That said, the training was based on helping managers to be more productive, innovative and efficient and it did just that."

And Bealmear agrees.

"They succeeded," Bealmear added. "But you don't, of course, attend such a presentation and just leave transformed. What was presented is still ongoing. Covey's ...'habits'... are principles we wanted to communicate, principles that not only help one work more effectively but that can also be applied to one's whole life."

Qualities that APPA facilitators seek to instill in facilities managers are integral to and parallel the Covey program: The development of a personal mission in life, applicable to both job and life; the practice of 'win-win' communications; championing team diversity; establishing workplace and life-style priorities; functioning synergistically on and off the job; and implementing a plan of personal renewal.

Core to these principles are individual differences—diversity—and empathic listening, "really listening to the points of view of others," said Walker.

"I really think that the main challenge of organizational leadership is to seek out and use all ideas in a synergistic manner for the good of all. When you listen to each person's point of view good stuff emerges everytime to become part of an efficient, productive, 'I'm-glad-I-work-here' organization."

Jenkins and Medlin explained that most management today is inefficient, ineffective and unproductive. Jenkins believes that, thus far, the true intellectual—and emotional—potential of managers to do fully the right thing remains untapped. And organizing and focusing these dormant potentialities to efficiently, "morally" lead an organization, he said, is where Covey training comes in.

Arriving at a workplace win-win philosophy is a major point in APPA's Leadership Training. In such thinking, effective, long-term relationships require compromise and mutual benefits. Although most people are raised with the idea that winning is all important, the win-win ideal holds that outcomes should be sought that are positive for both parties involved.

"Effective management and leadership means less tension in the workplace," Jenkins told MU's "7 Habits Workshop" participants. "We need more trust and confidence in our personnel. When we reach this point it creates a more loose and free and open organization. It creates a 'win-win' environment where you build up and don't tear down."

This idea of a non-adversarial workplace is beneficial to all and something Warden would like to see throughout Campus Facilities.

"The win-win philosophy explains how to deal with relationships in a non-adversarial way, which is how we attempt to do things," said Warden. "Much of the Covey training pertains to common sense, golden-rule, religiously based morality kinds of concepts—things that we just may not intuitively come to or are unable to organize intuitively ourselves."

Relationships are the Foundation

In the workshops at MU, the most important ideas coming out of the sessions concerned relationship building. Jenkins, who went into depth on this topic in the May/June 1999 *Facilities Manager* article "The Value of Relationships," believes relationships are the foundations of a strong workplace.

"Participants in our training are expected to live, model, and mentor their employees in the ideas from the course," Jenkins said. "We want managers to encourage others to follow their example in relationships and to take the next step. There are a lot of depleted 'emotional bank accounts' every place you go, some may even be overdrawn. By fixing these problems, managers can begin to manage efficiently and reach the true intellectual potential of management in higher education."

Along with the workshop's '7 Habits,' each participant receives a personal profile or ranking on various personal and work dimensions prepared from pre-training evaluations by one's peers and co-workers, one's boss and oneself.



Lander Medlin, left, and Larry Elliott, assistant manager of Construction Management, go one-on-one on workshop material. In the foreground, left to right, are PDE-Cs Value Engineer, James Sutherland, Jude Wawrzyniak, Facilities Project Manager, Steve Otto, CPM, and Jim Henley, CE.



A relaxed and confident APPA facilitator and Covey Workshop presenter, Charlie Jenkins, fields ideas about Covey Habit #4, "Think Win-Win," from Campus Facilities management participants at the University of Missouri-Columbia campus.

Guckert has taken the information garnered from the Covey training, including the profile, and employs it with Planning, Design and Construction's 130-plus personnel. One day each month for two hours 26 PD&C managers who attended the two workshops meet to discuss an aspect of the Covey principles and their personal profiles as they apply to their work environment. Guckert also assigns one of the

chapters of the "7 Habits" book that corresponds with that part of the personal profile the group will be covering. Members of the group then are expected to reflect on how the reading applies to their own profiles and how to implement what they have learned to workplace scenarios.

"The personal profile was the most useful part of the experience," said Guckert. "Charlie referred to the profile as a gift from our peers. He told us to use it as a tool for reaching our personal mission statement objectives."

"Charlie and Lander also recommended keeping workshop terms in front of us," Guckert added, "such as 'win-win' and 'emotional bank account,' concepts important to grasping the essentials of the training. The lessons learned in Covey apply to relationships, both personal and business. When we get together monthly, we talk more about the business applications because people are generally more comfortable with that than talking about their personal lives, although sometimes we do talk about that aspect."

Guckert says that the principles taught in the workshop have always been critical to the work of PD&C personnel.

"Speaking for Planning, Design & Construction, we depend on forging quality relationships with people with whom we work, whether they're clients, stakeholders, contractors, architects, or co-workers. We are a lot like other departments of Campus Facilities in that regard. We recognized the importance of relationship building when we were working on our strategic plan. The information from the workshop will help us reach those goals."

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Future Applications

With the success of the first two rounds of Covey training, Campus Facilities embarked in October and November 1999 on five one-day Covey training classes for an additional 105 middle-management and support staff.

Although the training classes don't connect with everyone, most people at Campus Facilities can see the good in the principles and message.

"Some people are more willing to learn than others and some let it soak in over time," said Warden. "Now that we've had time to digest the information, over the next year and beyond, we will try to use these concepts in our meetings. We will use some of the lingo. I don't expect it to be revolutionary, but I think it was a useful exercise that, coupled with our overall training effort, will improve our ability as a unit to work as a team." 📌

Reference: Owens, R. G. *Organizational Behavior in Education* (5th Edition). Boston: Allyn and Bacon, 1995.

MEMBERSHIP MATTERS

by Phil Cox

For APPA to fulfill its mission of supporting educational excellence with quality leadership and professional facilities management through education, research and recognition, it must be able to function from a strong operational base. The strength of that base and the organizational health of APPA are almost entirely dependent on broad membership participation.

When APPA members are asked what they value most about their association of choice, almost invariably the conversation turns up the word, "networking." I think most of us truly appreciate the benefits we enjoy as a result of knowing a broad circle of friends and colleagues from throughout

higher education. I certainly cherish the many friends and acquaintances I have made as a result of my APPA involvement. But more importantly, I believe my employer, Cornell University, has derived many benefits as a result of the lessons learned through such networking.

Another benefit of APPA membership comes from the outstanding professional development opportunities the association offers. Who provides the leadership and training associated with these diverse offerings that help us hone our professional skills? The members. The old adage that there is strength in numbers certainly applies to APPA membership.

Consider our finances. APPA's income is derived chiefly from its dues, its educational programs, and its publications. Who pays the dues or attends the educational sessions or

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purchases the publications? Members. I think you get the picture. Our membership numbers really matter.

So, who are our members you might wonder? Approximately 50 percent of the four-year institutions of higher education across North America belong to APPA. Among community colleges, however, only about 20 percent are APPA members. Why don't more schools take advantage of APPA membership? The reasons are varied. Some schools do not even have a "facilities" department; some say that the dues keep them away; others have outsourced their facilities operations.

However, for the most part, the reason most schools have not joined APPA is that their facilities professionals have not been invited to participate in APPA activities in a way that they feel a true sense of meaningful belonging. It is about collegiality. First, prospective members need to be asked to attend functions (maybe even pick them up and bring them to a chapter meeting for example) and then they need to be involved so that they feel like they really belong to an association of facilities professionals. Think back to when you first became involved in APPA. For those of you who have fond memories about your early involvement, I am guessing there were one or two individuals who helped make you feel welcome and encouraged your participation. I would suggest that that sort of personal touch is key to expanding our membership

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a network within their region so there will be a logical point of contact for prospective members or for membership retention contacts. Further, such a network, which can easily function via e-mail, will be useful in broadcasting messages about membership issues while also functioning as an effective tool for sharing lessons learned about membership recruitment.

The Membership Committee set some lofty (yet attainable) goals for membership growth over the next two years:

Membership Goals

With the help of all APPA members, these goals can be attained and APPA will be an even better association. But the Membership Committee can not recruit this many new members on their own. Thus, we are asking each member to consider recruiting one new member. Think about other schools in your area and check to see if they belong to APPA. If not, make a personal contact and ask the facilities professional to join you at a chapter or region function. Tell them about our association and the benefits they will derive from participating in our organization.

If you need information about APPA to help recruit that neighboring school, let us know and we will send a prospective member information package to you. Or, if you have an idea about some school that we might recruit and you do not feel comfortable about approaching anyone yourself, let one of the Membership Committee

know and we will handle it. If you have any questions about APPA membership, let one of us know. The Membership Committee is:

My hope is that each APPA member derives maximum value from their association with other higher education facilities professionals. And if you believe, as I do, that APPA's worth is made up of its members' talents, just imagine how much better our association would be if it included nearly all facilities professionals from higher education. Getting all higher education institutions to eventually belong to APPA may seem like a lofty goal, but it is possible with your help. 📌

Institutional Members	by	November, 2000	7% net growth
	by	November, 2001	7% additional growth
Associate Members	by	November, 2000	7% net growth
	by	November, 2001	7% additional growth
Business Partners	by	November, 2000	2% net growth
	by	November, 2001	2% additional growth
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Because they recognize how vital it is to retain and grow APPA's membership, the Board of Directors, at their Cincinnati meeting in June, expanded the role of the Membership Committee to include a mid-year committee meeting. At the November mid-year meeting in Alexandria, the Membership Committee developed some strategies to retain our existing membership and to expand our membership over the next two years. To help facilitate those strategies, a network, parts of which already exist in some regions, will be established of members who are willing to lend some of their energies to this vital effort. Each regional representative on the Membership Committee has pledged to establish (or strengthen) such



Health Education and Safety for High Quality Performance

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by Apollos Bulo, Dr. P.H.

Safety is the key to the success of any human endeavor; hence the saying "health is wealth." Safety in the simplest sense involves the preservation of good health. The World Health Organization (WHO), which is the health care department of the United Nations Organization (UNO), defined health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (WHO, 1948).

Therefore, the safety and health of the workforce of any service organization is of paramount importance. Without the establishment and maintenance of a high level of physical, mental, and social well being of the workers, their level of productivity will be highly reduced. Industries and corporate establishments invest extensively to train their workforce to a level of productivity that guarantees high performance. Organizations would like to enhance and safeguard the status quo and would not want to jeopardize the safety of their highly trained workforce. They need their workers to be physically and mentally fit to continue their high performance.

This article discusses the methodologies that have been successfully used at the University of Michigan Plant Building Services for the maintenance of the safety and health of almost 400 management and custodial staff, and which may be extended to cover all the more than 1,500 workers throughout the university's Plant Operations Department. These methods are therefore recommended for large educational institutions and corporate organizations where continuous high quality performance of jobs is a priority. The requirements for establishing and maintaining safety and health management in the workplace include the formation of a Safety and Wellness Committee, the development and implementation of a properly organized safety training program, and the establishment of programs for continuous medical screening and health education for the workforce.

Safety Committee

A Safety and Health Management Committee was established as an arm of the management of the department. It is headed by a senior official who is professionally qualified

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and has had several years of experience in the health and safety field. Organizations which lack a qualified or experienced individual should employ the service of a related department or organization that can provide it with such personnel. This professional will form and chair a planning subcommittee that includes two or more people in the department who are experienced or interested in safety.

At Michigan, the function of the planning subcommittee is to direct the activities of the safety committee by setting the agenda of each meeting and inviting professionals to teach different aspects of safety and wellness. The subcommittee also notifies all members of the safety committee of the dates of these meetings (usually once monthly), the speakers, and the topics and venue of the meetings. This information is also made available for the general notice of every member of the department.

When it is not possible to bring everybody from their job sites to attend the safety meetings, only the supervisors and group representatives attend the monthly meetings addressed by the safety committee and the professional health and safety speakers. These representatives and supervisors in turn present the monthly safety topics to their groups at their work site. Handouts and other materials provided at the monthly safety meetings are made available for the rest of the groups of workers at their work sites. This ensures that the entire workforce enjoys the benefit of the monthly safety lecture topics.

The subcommittee is also involved in the training of all staff members in safety and health management in the department. It monitors the curriculum of safety education for new employees and establishes a program for the continuous and periodic refresher courses in safety for other employees. It is recommended that in a large divisions of a university, such as Physical Plant, the training could be centralized or it could be done separately by each constituent department if they all have qualified training staff. At the University of Michigan, because of the enormous size of the entire Plant Operations which is made up of about five constituent departments, each department presently does its own safety training, although the idea of a central program is now being considered.

Training in Safety and Health Management

Training in safety and health management is organized by the safety committee in consultation with the staff development and training section of the department. The first line of defense in all health issues is to acquire adequate knowledge of the sources of accident or infirmity. Safety training must occupy a paramount place in the new employee orientation, and needs to be revisited by all workers throughout their lifetime on the job.

In Plant Building Services, all of our new employees are first given at least 20 hours of orientation which lasts for a whole week, before they are allowed to start working. Four hours of the orientation are spent on safety training, although we are now considering increasing this period of safety training to eight hours or more. This period is spent studying the different aspects of safety, including electrical and elevator safety, hazardous waste management, pest management, bloodborne pathogens, radiation, asbestos awareness, hazard communication, lifting and care of the back, use of fire extinguishers, tornadoes, and weather warnings.

We are now planning to include the study of respiratory conditions and general accident prevention awareness. Thus the full week of orientation at the University of Michigan is divided into two sections: a section for safety training and another for technical training. The second section of the training covers the technical aspect, which deals with custodial technological know-how. During this section, it is important that safety measures as well as general accident prevention awareness is stressed and utilized for each segment of the technical training. The new employees are taught how to utilize the safety principles

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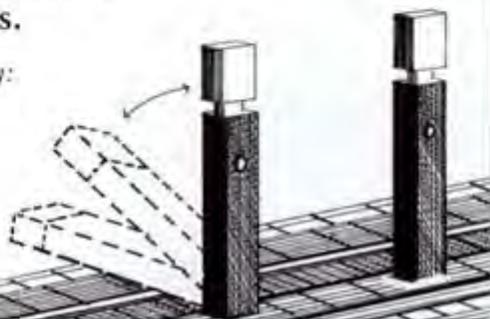
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Continued from page 30

mentioned in the first section, to the modus operandus of the job.

Apart from the monthly safety meetings already discussed, during which the training materials are circulated to every worker, the custodians are brought back every two years for a refresher course on new equipment and new technical know-how, so that they can keep abreast of new educational and technological developments in the trade. Supervisors and safety representatives are also provided the opportunity for first-aid training and primary care for workers in cases of accidents on the job. Such training can be provided by certified personnel in the department or by public professional bodies such as the American Red Cross or ambulance organizations.

Safety training in any professional department of the workforce should be such that all personnel are properly prepared for any emergency so that they can provide some primary care or at least be able to communicate with the nearest source of health care.

Programs for Health Management

Proper monitoring and management of the health of the organization's workers are necessary if the institution is to maintain a high level of performance and productivity. Some organizations may think that the health of the individual is a private matter, and that if he loses time through sicknesses and absenteeism that he will lose out financially as his paycheck will be affected. But the organization loses more than the individual as the worker's poor

health, and hence poor work performance, would adversely affect the organizations' productivity, which will in turn affect its competitiveness in the business market. It is therefore pertinent for quality performance and high productivity that the organization monitors and possibly influences the health of its individual workers as much as possible.

One of the ways of doing this is to establish and implement some programs for health management in the department. This usually involves the introduction of an annual health screening program for selected medical conditions that are of epidemiological importance in the work environment or that may be directly related to the type of duties the workers perform on a regular basis.

The two main programs utilized for effective health management in the workplace are health screening and health education.

Health Screening Programs. Many types of health screening programs have been recommended for individual workers by the United States Department of Health and Human Services. The main areas recommended for screening by the U.S. Preventive Health Services include cardiovascular (heart), neoplastic (cancer), and infectious (communicable) diseases, as well as environmental, metabolic, and nutritional disorders. Other screenable conditions are disorders of vision and hearing, prenatal, congenital, and mental disorders, and substance abuse.

At the University of Michigan we are presently carrying out health screening as part of our Wellness Program for Plant Building Services workers. We are screening primarily for cardiovascular as well as nutritional disorders. If we find that we have special complaints like cases of respiratory problems arising from the use of equipment with faulty filters (without the use of appropriate respirators), we would also recommend that screening should be done for respiratory disorders.

In all situations, however, screening for cardiovascular conditions is highly recommended for all workers. This is because according to the National Institutes of Health (1993) and the National Center for Health Statistics (1994), coronary heart disease is the leading cause of death in the United States, accounting for approximately 490,000 deaths each year, and projected to cost over \$60 billion in medical expenses and lost productivity.

Since elevated blood cholesterol is the major risk factor for coronary heart disease, periodic screening for high blood cholesterol is recommended for all men ages 35-65 and women ages 45-65. It is also recommended that all workers should receive periodic

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screening and counseling regarding all measures necessary to reduce their risk of coronary disease, such as screening for hypertension (high blood pressure), counseling for prevention of tobacco use, promotion of physical activity (such as exercise) and of a healthy diet.

However, there are some practical problems that accompany these medical conditions, such as time constraints and the patient's ignorance. The costs of health screening can be greatly reduced if the institution uses its in-house health care facilities and personnel. The University of Michigan has a special unit in the University Health Services, the Periodic Health Appraisal Unit (PHAU), that is mandated to carry out a Worksite Wellness Program free of charge for all staff of the university.

This unit carries out screening for cardiovascular and nutritional disorders at the worksite. Within 20 to 30 minutes each worker is tested for total blood cholesterol, LDH and triglyceride, as well as glucose levels. Blood pressure, pulse and respiratory rates are also measured at the same time, while the individual sees the clinician privately and is given the proper counseling based upon his or her results. Very little time is lost from work; thus the time constraint problem is virtually nonexistent.

Health Education Programs. One of the greatest barriers to company health screening programs and the entire safety and health management agenda in any work force is workers' medical confidentiality. Some workers fear that the management of the department or institution may have a hidden agenda for carrying out screening tests.

Although the University Health Services practices complete medical confidentiality—results of screening tests are not provided to the department's management—most workers still do not feel comfortable in coming forward to be screened. The only solution to these problems is a proper health education program for the organization.

The entire workforce of an institution or corporation should be given detailed health education by instituting a program of health talks by experts and health professionals both from inside and outside of the department. The highest level of management in the department should also be involved in the safety and health committee to ensure that health management commands respect equal to other department programs.

At the University of Michigan, the director of plant building services is a member of the Safety and Health Planning Committee, and the safety and health talks are mandatory for the entire department. As a result of this support, our pilot study has already obtained more than 50 percent response for the screening program (as compared to the 25 percent average

national response rate). We are confident that this percentage will increase when we screen a wider sample.

Another of the reasons given by many individuals for not taking part in the workplace health assessment program is that they see their own physicians regularly. A health education program is necessary to enlighten such people that most physical examinations by a physician do not focus on a particular area of health except when symptoms occur. Periodic worksite wellness programs screen workers for particular conditions based on the nature of their work environment. Even if a general physical examination detected such occupational disorders, the workforce wellness program can provide a second opinion.

An effective health education program should also teach the workers that periodic health programs in the workplace are better preventive practices because they can detect asymptomatic conditions (before the symptoms appear) better than visits to the physician's office, which usually occur during the symptomatic stages of disorders (when the patient notices the symptoms or some discomfort). Therefore, although participation in screening tests is optional, the safety committee and health professionals should encourage all staff to take advantage of a free health-screening program. This should be done effectively during health education sessions that should precede the actual screening tests.

Another advantage of worksite wellness programs is that any potentially serious health conditions can be followed up by the worker's own physician, who will not only confirm the results but can then provide the treatment or control measures that will prevent or reduce any discomfort in the future. It is reassuring to know that most slowly deteriorating (chronic) health conditions today, such as heart problems or most forms of cancer, can be controlled or treated if detected early enough. Therefore, a program that provides an opportunity for early detection of any health problem is worth trying.

The counseling given by the clinician during the worksite wellness exercise is also part of the overall health education program. If the worker does not take part in the screening test, he or she will hardly have the opportunity of benefiting from the clinician's counseling, because counseling is based on the results of the screening tests.

These programs have highly improved the wellness status of Plant Operations workers and reduced the rate of accidents and injuries on the job by more than 60 percent at Michigan and are therefore recommended for large institutions and industrial organizations. 🏠



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APPA'S PROFESSIONAL LEADERSHIP CENTER: A GIANT STEP TOWARD THE FUTURE

by Douglas K. Christensen

As we begin the new millennium, we have a significant opportunity to do something to make a difference—to reexamine what is happening around us, both personally and professionally, and point to the future with a different view than we had.

APPA is poised to provide professional renewal to the individual who wants to address the personal challenges of our profession, improve the interpersonal relationships that will help us succeed in the future, and understand and hone the organizational systems and structures to bring together the mission, strategy, and culture of the organization. This renewal comes in the form of the Professional Leadership Center.

The Professional Leadership Center

The vision of APPA's Professional Leadership Center (PLC) is to release individual potential. For the past two years, an advisory council has been charged with creating an ongoing process that can "build" professionals. What follows is a summary of our progress. Foundation

The foundation for the PLC comes from proven teachings and concepts in leadership, such as:

- Kaplan & Norton's Balanced Scorecard
- Carnegie-Mellon's Software Process Assessment Model
- Peter Senge's *5th Discipline: The Learning Organization*

Doug Christensen is director of the capital needs analysis center at Brigham Young University, Provo, Utah. He is a Past APPA President and currently serves on the Strategic Assessment Model Task Force and the Professional Leadership Center advisory council. He can be reached at douglas_christensen@byu.edu.



- Stephen Covey's *7 Habits of Highly Effective People* and *The 4 Roles of Leadership*
- The Seven Baldrige Categories of Performance Excellence
- Scenario Planning
- S.W.O.T. Analysis (strengths, weaknesses, opportunities, threats)
- Myers-Briggs Analysis
- Strategic Thinking
- Kotter's "Leadership vs. Management"
- APPA's Strategic Assessment Model (SAM), Facilities Management Evaluation Program (FMEP), Awards for Excellence in Facilities Management, and Comparative Costs and Staffing Report
- APPA's teaching of core competencies at the Institute for Facilities Management

The PLC is committed to learning and applying the latest proven leadership skills and processes.

Structure

The PLC has three major focuses: 1) to teach leadership skills, 2) to conduct research and further knowledge in the facilities profession, and 3) to recognize those professionals who are dedicated to professional leadership.

The Leadership Academy

The PLC advisory council established the Leadership Academy two years ago to carry out the Center's goal of teaching leadership skills. The three Academy programs—Individual Effectiveness, Organizational Leadership, and Professional Leadership—have previously been taught as separate workshops at different locations. These three sessions have now been reformatted and rescheduled for one date at a single location.

Each section will still be taught separately, but attendees will have the additional benefit of being able to network and synergize with participants at all levels of leadership. Combining the programs also allows them to be offered at a much lower cost. The first combined location will be June 4-8, 2000 in Palm Springs, California. Visit <http://www.appa.org/education/plc/academy> to register or to receive more information. Our long-range goal is to hold two Academy sessions per year.

Individual Effectiveness Skills

This session utilizes Covey's leadership training as its basis and focuses on improving the individual and personal skills needed to be an effective leader. This session has also been taught at institutions where a group of colleagues can learn the information and develop the skills together, thus improving the opportunities for culture change at their institutions or within their operations. [Ed. Note: For more details, see Jon Stemmler's article in this issue, "Covey Workshops in the Miz-zou Campus Facilities' Workplace."]

Organizational Skills

This workshop focuses on the skills needed to effectively deal with managerial and organizational needs. For many years this workshop was known as the Executive Development Institute and was centered at the University of Notre Dame. Due to APPA's strategy to combine locations, we have

selected to use some of the Notre Dame faculty and add some others.

The skills taught in the new Organizational Skills workshop are key to how we lead people and create effective organizations. Time will be spent to learn such skills as pathfinding, alignment, empowering, and modeling (taken from Covey's *4 Roles of Leadership*). We will also teach such organizational tools as APPA's Strategic Assessment Model, Facilities Management Evaluation Program, and the Awards for Excellence criteria.

Professional Skills

This workshop focuses on the skills needed to effectively deal with the issues of the facilities profession and higher education. The faculty will be invited to address the current issues facing higher education and the facilities profession. Skills will be taught on how to address these issues and using them strategically. We'll also spend time focusing on how to partner with peer institutions and other stakeholders.

The Leadership Academy is designed to provide you with the leadership skills needed to be effective in dealing with the ongoing changes that surround progressive institutions. Continuous review and updating of the skills needed to be an effective leader will be a key function of the evaluation process. We hope that over time, Academy participants would want to attend the skills sessions again to sharpen existing skills or develop new ones. Continuous improvement is a foundation principle of the Leadership Academy.

Research

To do research and further new knowledge in the facilities profession is the key goal of the Research component of the Professional Leadership Center. The following steps will be included in the research process:

Step 1 Complete an application. Application forms are available from APPA. The research needs to focus on some aspect of the facilities profession.

Step 2 The research topic is reviewed, and the proposal is accepted and meets the "expectation" to improve the facilities profession.

Step 3 A research review team of one to three members will assist the researcher and review progress on the project. A target date will be established. Any resources needed to complete the research will be requested and coordinated with the research review team.

Step 4 After the research review team has reviewed the final draft, a recommendation will be made to accept the research. The written research will then be available for use by any of the committees and members of APPA.

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Step 5 Acknowledgments will then be shared within APPA, to the facilities profession at large, and to the higher education community.

Professional research is a global approach to study and learn. It is not limited to APPA institutions only but can involve all of our business partners, other higher education associations and their members, industry, and anyone else interested in furthering the body of knowledge of the profession. Research is a very important part of the Professional Leadership Center.

APPA "Fellow" Recognition

To recognize those individuals who are dedicated to professional leadership, an APPA Fellow recognition is being established. The purpose of this recognition is to identify those who are willing to prepare themselves in bringing leadership to the profession. To be recognized as an APPA Fellow, you must have completed the following.

Requirements:

- Demonstrated a desire to learn leadership skills by completing the three-part Leadership Academy
- Complete an APPA-approved research project about some aspect of the facilities profession
- Present and/or publish the approved research project

Application:

- Complete all of the requirements above
- Provide two letters of recommendation that demonstrate accomplishments and commitment to the facilities profession

Verification and Review:

- APPA verifies completed requirements
- Application reviewed by PLC Advisory Council
- PLC Advisory Council nominates successful candidates to the APPA Board of Directors
- Board approves "Fellow" status

Recognition:

- APPA President bestows honor at APPA's annual meeting
- Medal is presented
- Letters of recognition of status are sent to institution's leadership
- Recognition in *Facilities Manager*
- Special designation in APPA's membership directory

Conclusion

It is time to *release our individual potential*. Leadership is about individuals getting

a glimpse of something better and finding ways to make it happen. The Professional Leadership Center is designed to add value to your work. It allows each of you to reach your potential. We cannot build this framework without a lot of help. Individuals working together will raise the level of professionalism needed to meet the challenges of the future.

The train is on the track and loaded with the best thinking to date on leadership. The engine is building up steam to provide the energy to climb the mountains ahead. The conductor is loading the train, and we have your ticket to releasing your individual leadership potential. The tracks lead to a better future. The journey begins. 🚂

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Visiting the Land of the Long White Cloud



by John Harrod

Wellington, New Zealand was the site of the AAPP Regional Meeting held in September of 1999. It has been the recent custom of our international association to have the President-Elect represent APPA at the AAPP annual meeting. My wife Jane and I were very honored and privileged to be able to continue this tradition.

We started planning for the visit in May of 1999. Thank goodness for email! We were able to make contact with a few of the folks from the region. Peter Brennan, from the Institute of Technology, Sydney was one of our first contacts. Peter had been over to the United States a few years back and he had spent time with us while he was visiting at the University of Wisconsin. Peter was able to direct me to David Tai from Victoria University in Wellington, New Zealand. David and Peter helped get us headed in the right direction.

At the Educational Conference and Annual Meeting in Cincinnati, we were able to connect with a number of the AAPP attendees. They were all so very helpful.

We knew that we wanted to visit as many campuses as we could, attend the meetings, and see the sights. The question was, "where do we start and how much time will it take?" We were reminded a number of times that we could not "do it all."

The start was easy. Our international flight would bring us into Auckland, New Zealand. Unfortunately, the available flights did not allow us to spend much time touring campuses

John Harrod is APPA's President-Elect and director of physical plant at the University of Wisconsin/Madison. He can be reached at john.harrod@cemail.adp.wisc.edu. Special thanks to Sarah Bieck, student office assistant, physical plant, University of Wisconsin/Madison, for her assistance on this article.

in the North Island before the AAPP meetings were scheduled to begin. We did, however, get a chance to catch up with Maurice Matthewson, Works Registrar at the University of Auckland, before heading for Wellington.

Auckland University, New Zealand's largest university, was established in 1883. It is located in the heart of the city, and expands over three campuses: the city campus, the Tamaki campus, and the Medicine and Health Science Campus. Current enrollment at Auckland University is over 26,000 students, of which over 1,000 are international students from 60 different countries.

We had the opportunity to take a walking tour of the campus. It was built on land that was part of the original Government House and gardens. The building remains today and is used for special occasions at the university. The historic facilities and grounds are now part of this "park-like" campus. As the university has grown, land adjacent to the campus has been acquired. A recent purchase and retrofit converted an old bottling company facility into a modern law building and library. The campus did a wonderful job creating a very usable space.

Most of the facility services are performed by contractors, with the exception of the gardeners who are responsible for the maintenance of the campus trees, shrubs, and flower gardens. Maurice indicated that "if a service can be measured, [he] will try to contract for that service." That philosophy seems to be working for him. We bid farewell and departed for Wellington.

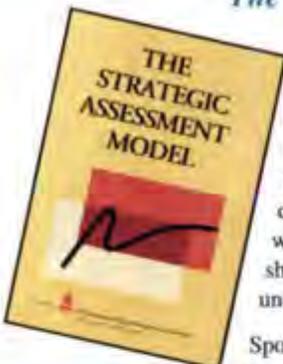
Wellington, the capital of New Zealand, was the site of the ATEM/AAPP Conference. For some time now, the Association of Tertiary Education Managers (ATEM) and AAPP

Continued on page 41

FOUR NEW BOOKS PUBLISHED BY APPA

APPA: The Association of Higher Education Facilities Officers is pleased to announce the publication of four new resources in facilities management.

The Strategic Assessment Model

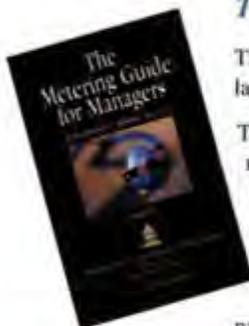


Developed by APPA as an evaluation and management tool, the Strategic Assessment Model enables facilities managers to track organizational performance along a continuum of key performance indicators. SAM also enables managers to compare their organization's performance to that of its peers, as well as establish improvement goals and plot progress toward those goals.

The new book, *The Strategic Assessment Model*, includes six chapters that introduce the SAM concepts and performance indicators, links them to a balanced scorecard framework and APPA's four core competencies, and explains how SAM connects with the Baldrige Award criteria. Appendix material includes valuable results of the recent SAM survey, a one-page matrix showing the 18 core metrics and their current ratios, definitions, resources for further reading, and step-by-step instructions for undertaking a formal benchmarking process.

Sponsored in part by Nalco Chemical Co. Softcover, 117 pages, ISBN 1-890956-08-2, Item #A728, \$60 APPA member institutions; \$80 others

The Metering Guide for Managers, by Mohammad H. Qayoumi



The lack of adequate utility metering is one of the key barriers for effective energy management for many organizations. As deregulation of electricity moves from concept to implementation, the need for better and more reliable metering has become more evident.

The *Metering Guide for Managers*, written by Mo Qayoumi of the University of Missouri/Rolla, provides a clear introduction to measurement and utility metering and explains why it is important to the campus facilities professional and his or her institution. Included are chapters on metering fundamentals, metering technologies and products, and management perspectives. The book also provides a discussion of basic statistics for managers, information on measurement reliability, and useful references for further reading.

Sponsored in part by the Electric Power Research Institute and the International Facility Management Association. Softcover, 84 pages, ISBN 1-890956-09-0, Item #A729, \$35 APPA member institutions; \$55 others

Proceedings of APPA's 1999 Educational Conference (Cincinnati, Ohio)

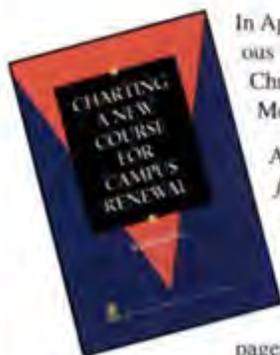


Includes 11 papers presented during APPA's 1999 Educational Conference and 86th Annual Meeting. Topics include:

- Financing of central utility plant maintenance and operations
- Preparing for Y2K
- Assessing capital equity/adequacy for a university system
- Changing the corporate culture within the physical plant department
- Benchmarking
- Planning for uncertainty
- Integrating operations and academics
- Performance improvement

Softcover, 144 pages, ISBN 1-890956-10-4, Item #A731, \$28 APPA member institutions; \$35 others

Charting a New Course for Campus Renewal, by Rod Rose



In April 1998 a powerful conference brought together representatives from the public universities of New Mexico to discuss the serious problem of capital renewal and deferred maintenance of the state's campus facilities. Speakers included Harvey Kaiser, Doug Christensen, Chris Christofferson, Ron Hicks, John Bruning, Wayne Leroy, and Val Peterson, as well as representatives of New Mexico's Commission on Higher Education and other organizations.

Author Rod Rose has summarized the valuable presentations and insights garnered at the symposium for *Charting a New Course for Campus Renewal*. These are the lessons learned from the New Mexico Higher Education Symposium on CRDM that are easily applicable to other states or systems.

The book first establishes the context which led to this gathering of experts, then provides a set of common vocabulary from which to speak. Several planning models are presented and various financing options discussed. Included are policy and funding implications, lessons learned, and approaches for future collaborations at the state and national levels. Softcover, 53 pages, ISBN 1-890956-11-2, Item #A730, \$45 APPA member institutions; \$65 others

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have been holding their respective annual meetings concurrently. The combined group had approximately 500 individuals participating, with 125 being AAPPA representatives. I was impressed by the quality of the programs offered at the conference and the hospitality extended to all whom attended. Of particular interest was the Website generated for the conference that contained the days' events, the abstracts of the presentations and a biography of the presenters. Check it out if you have a chance:

<http://www.conferences.co.nz/atem-appa1999/main.htm>

David Tai, Works Director from Victoria University, was the host city representative. He, his wife Ida, his assistant Angela Dolan, and the host committee made sure that "the best of the city" was presented to the attendees. Max Bradford, the New Zealand Minister of Tertiary Education, opened the conference with an "official governmental welcome" conducted at the Parliament Building. The welcome was followed by a presentation of blessings, gifts, and cultural dance, a long-standing custom of the Maori people, who were early settlers of New Zealand.

I must acknowledge that the conference was not all "programs and business." The folks "down under" do know how to celebrate and have a good time. In addition to an evening filled with pomp and circumstance at the opening ceremony, we had two other banquets that we attended.

The AAPPA Awards and Recognition Banquet was also the 10th anniversary celebration for AAPPA. A cake appropriately decorated was served to the group. It was at this celebration that I was privileged to recognize Sam Ragusa and present him with the prestigious APPA Meritorious Service Award. Sam has been instrumental in developing and strengthening our international organization. Pam Esdaile was awarded the Maurie Pawsey Scholarship and will be visiting the United States next summer. Representatives from the region were also recognized for their contribution to the organization.

Just a bit of information about Victoria University follows. Victoria University is celebrating 100 years of service to the city of Wellington and to New Zealand. It was founded in 1899 to honor the 60th year of Queen Victoria's reign. The campus was developed on the hillside overlooking the Wellington harbor. It is now the fourth largest of the seven universities in New Zealand. The university holds an exclusive position as New Zealand's "Capital City campus." Victoria's enrollment is over 15,000 students, spread across over 50 departments and schools. The students come from over 40 countries around the world.

Following the conference, we traveled on to Nelson, New Zealand to visit with Tony Greep, Facilities Manager of Nelson Polytechnic. Joining us and serving as tour guides were Russell and Jan Candy from Western Australia University. Russell and Jan were accustomed to driving on the "wrong side" of the road. It was equally beneficial for us and for the



Russell Candy blowing out candles at 10th anniversary celebration of AAPPA. Tony Greep, (background), master of ceremonies.

residents of the Nelson area that they served as our chauffeurs.

one time, 300 of which are international students from various countries. The smaller enrollment level guarantees smaller classes, which in turn guarantees more individual attention.

Nelson Polytechnic was established as a technical college in 1904, while gaining full polytechnic status in 1972. Although it has enrolled up to 9,000 students, Nelson Polytechnic enrolls approximately 2,000 full-time and part-time students at any

Russell and I had the privilege of a guided tour of the campus. We also were invited to meet with Dr. John Cretney, CEO and Chancellor, over morning tea. The major focus of this institution is technology, and preparing students for hands-on work. We toured facilities that focused on the arts, textiles, clothing, broadcasting, and trades. We also had a chance to tour the "simulator bridge," where sailors and fisherman get hands on experience in the fields of navigation, piloting, and equipment repair.

Nelson Polytechnic is currently renovating a number of the existing facilities to accommodate expanded computer demands. They have recently completed construction of a new, extremely versatile library building. The facility was designed with expansion of electronic technology in mind. Open, overhead wiring trays and perimeter wall conduits provide for easy access, expansion and change out of cable technologies. The institution continues to grow and is in the process of purchasing adjacent properties for the future growth of the campus.

In order to gain a little more insight on the status of the new library building, the following are a few facts and dimensions. The new building is approximately 26,900 square feet over three levels. The ground floor is around 10,760 square feet, the 2nd floor is about 10,760 square feet and the 3rd floor is approximately 5,380 square feet. The total project cost was NZ \$3.7 million. The contract sum for the construction part of the project was NZ \$3.1 million. Fees, furniture, planning and other associated costs took up NZ \$600,000. The duration of the construction period was twelve months and the project never went over that time. Fixed price quotations (tenders) were called from seven pre-selected contractors with the skills and resources to complete the job within prescribed 12-month construction period. This is an innovative

project combining both library and learning facilities. The facility has been prewired for 120 computers for free student access. This allows them to link up to their study requirements covered within the computer laboratories. This building was built with future capacity in mind and there is still approximately 7,532 square feet of uncommitted space to date.

We said our good-byes to Tony, Russell, and Jan, thanked them for a wonderful time, and headed off to visit the campuses in the Christchurch, New Zealand area.

Christchurch Polytechnic is located in the center of Christchurch, NZ. It is the largest vocational and technical training institute in the South Island of New Zealand. There are three main campuses that house a number of teaching areas. Classes began in 1906 for the then-called Christchurch Technical College. In 1980, the Institute was renamed to stress the wide range of programs and the emphasis on applied technology. "The mission of Christchurch Polytechnic is to provide continuing education in a wide range of applied, vocational and professional studies to postgraduate level."

Murray Humm, head of the Facilities Management Division, welcomed us to his campus, and gave us a tour of a few of the facilities. They were in the process of constructing a new student services facility. The building was to be occupied as soon as sections of the facility were completed. Scheduling the timely construction and occupancy was a real challenge, but they seemed to have the program under control.

Following is rather in-depth information regarding the student facility. The new student services facility is comprised of many parts. There is an Education Resource Center (Library), two stories high and approximately 40,780.4 square feet. There is also a two-story Administration Block that covers 22,165.6 square feet. In addition, there is a three-story registry and classroom block, which comprises 35,508 square feet. The atrium space is approximately 15,817.2 square feet. The total floor area of the new building is 114,271.2 square feet. The program has a 21-month design phase and a 16-month construction phase. The total time expected to elapse is 28 months, due to the fact that construction had commenced twelve months before design completed. The



Sam Ragusa, right, received APPA's Meritorious Service Award.

final stage is due for practical completion and occupation by December 23, 1999. The project has been managed by a Construction and Project Management Company who have split up all the various trades and tendered these individually. Murray is responsible for the final authorization of all recommended tenders relating to the new building construction. The project budget was based on a quantity surveyor's estimate, which was developed at the concept design stage. Christchurch Polytechnic is confident that the final project will be completed within the forecasted budget.

Most of the facility services are performed through contracts at Christchurch Polytechnic. The campus does not have much room for growth and is currently expanding by purchasing adjacent property and buildings. Conversion of the surrounding commercial buildings is occurring wherever possible.



Award Recipients: Left to Right: John Harrod, University of Wisconsin-Madison; Russell Candy, University of Western Australia; Brian Fenn, Queensland University of Technology; Susan Cooper, Northern Territory University; David Tai, Victoria University of Wellington; Bruce Thompson, Edith Cowan University; Roger Parks, University of New South Wales.

Russell Englefield at Lincoln University was our next stop. Located just south of Christchurch, Lincoln University has a rather complicated history. It began as the Lincoln School of Agriculture in 1880, and was renamed Canterbury Agricultural College in 1886. The Canterbury Agricultural College became a college of the University of New Zealand in 1927.

In 1962, after the disbanding of the University of New Zealand, it was renamed Lincoln College, but also became a constituent college of the University of Canterbury. Finally, on July 1, 1990, the College was renamed Lincoln University and became self-governing. The enrollment of Lincoln University is expected to have a full year equivalent of 3,260 full-time students. A total of 1,068 degrees, diplomas, and certificates were earned in 1997, this number includes 21 Ph.Ds and 91 masters degrees. The Lincoln University campus is comprised of 58.5 hectares. In addition to this, the horticulture research area, the research farm, and the sheep-breeding unit occupy 362 hectares. The University buildings have a floor area of 81,159 square meters, or ~873,270.84 square feet. Lincoln University also runs five farms.

Facility services are provided through contracting and many are performed preformed by in-house.

I was impressed with their new library building. A modern facility was constructed behind the façade of a historic campus structure. The design character of the cen-

tral campus remained unchanged while the institution realized a new, modern facility, planned for future expansion. It is one of the nicest conversions I have seen, and it truly "fits" on the campus.

An old laboratory building was recently closed because it was not earth quake proof. Plans are being prepared to secure/stabilize the building for renovation, probably for uses other than lab space. I toured the Landscape Architecture Department studios—some things never change. It was the last week before the end of the term; students and their projects were all over! It was crunch time.

Russell is also preparing for a student center renovation. Architects were invited to participate in the selection process. The concepts would be presented to the Governing Board for consideration. The favored schematic would be commissioned for construction.

What follows is an analysis of two of Lincoln University's projects. In 1986, the library facility was 29,181.12 square feet. 1990 enrollment provided the basis for the following projections. The library needed to be 32,280 square feet by 1992, 43,040 square feet by 1996, and 53,800 square feet by 2001. Tenders were to be called by September 1991. The project had a total cost of \$4,994,583, and a contract period of 16 months, (February 1993). The end result serves as a working library and as a learning environment.

In 1993, Lincoln University decided to construct two residence halls. Based on a 50 bed-bid, the total project cost was \$1,361,576. The gross area was 6,520.56 square feet. The first hall took 90 working days to complete, and the second took 68 days.

James Cook University, of Cairns, Australia, is one of the two main campuses of James Cook University. It is the newly built part of the campus as well. This University prides itself on its international reputation for research and discovery, and ranks among the top of Australia's research universities. Cairns is located close to the regions of the Great Barrier Reef and Wet Tropics Rainforest. It lies 15 km north of the city.

Ted Dews, the director of property for James Cook University, introduced me to John Parker, the Services Manager for the branch campus. Ted and John have done a remarkable job in planning and constructing a very versatile facility, which continues to grow. New chillers were recently installed in the main plant to handle the additional cooling loads of the expanding facilities. They use thermal storage to help control

their energy costs. Most services are done through contracting; however, the university does have about ten maintenance mechanics on board to handle the day to day needs.

The new library facility is just completing construction. The gross building area is approximately 71,016 square feet. The total contract building price, including IT, furnishings and consultant's fees, is \$12,400,000AU. The expected period of contract is forty weeks. Tenders were taken at the lump sum price, no rise and fall, based on bill of quantities. The efficiency of their construction process was amazing.

Moving along to Sydney, Peter Brennan, at the University of

Technology, Sydney, and Pam Esdaile, at the University of Sydney, were our tour planners. They have become quite experienced in this exercise. It seems as if everyone wants to visit Sydney. And yes, you should! Peter was there to greet us as we arrived. From there it was off to a tour of the city center.

The University of Technology, Sydney is spread throughout several campuses, over three major locations, City, St. Leonards, and Kuring-gai. UTS offers over 100 undergraduate degrees and current enrollment exceeds 24,000 students. The number of staff in



*Jane Harrod and Russel Englefield
Lincoln University
Christchurch, NZ
Library Facade*



*Russel Englefield inside Lincoln University
Library*

1999 totaled 2054. UTS is known for keeping up with developments in both management and technology. The main campus is in the heart of the city. It is truly a vertical campus. The main tower reaches 26 floors high.

Bob Kelly, Director of Buildings and Grounds at Macquarie University was our next tour guide and host. We began by first visiting the site of the 2000 Olympics, followed by a tour of Macquarie.

The Olympic Village includes 520 houses, 350 apartments, and 350 modular homes in addition to the facilities for recreational and other Olympic uses. Construction began in May 1997 and is due for completion by June 2000. The village will accommodate 15,000 athletes and officials during the Olympic Games, and 7,000 athletes and officials during the Paralympic Games. This is the first time in the history of the Olympic Games that all participants will be able to stay in one

village. The Olympic Village will be accessible to those with disabilities as well as just long-term residents. The Village lies in the new suburb of Newington, which is being developed according to the principles of Ecologically Sustainable Development (ESD). A dual water supply is being established to minimize the use of potable water and at the same time maximize the recycling of water on the site. In a quest for energy efficiency, translucent roofing, light wells, sunshields, wind-powered ventilators, light sensors, and light-colored exterior finishes have been utilized. These energy saving appliances reduce the use of energy from non-renewable sources. Another obvious way that the Olympic Co-ordination Authority is attempting to conserve energy is through promotion of public transportation, walking and cycling.

Macquarie University began in Sydney, Australia in 1964. It has developed from "a small but innovative institution on Sydney's north shore to a multifaceted university in the heart of one of Australia's leading high-technology parks." Macquarie University is home to fourteen university research centers and five federally funded national centers. The campus occupies 135 hectares of natural bush, and is located approximately sixteen kilometers northwest of the Sydney CBD. Current enrollment is about 20,000 students.

Macquarie University is growing. They have developed and are rapidly expanding their Research Park to meet the "partnership" agreements they have fostered with the business community. They are expanding the university programs to better serve industry. A hotel is being built on campus to accommodate the new focus. Physical improvements to campus include a new campus entrance, relocation of the Buildings and Grounds Office and a new student apartment complex. The residence unit is currently under construction, and is expected to contain 550 beds. The facility will first be used to house the Olympic staff, and then for students. Recently, a new administration building was constructed on the edge of campus to make room for on-campus academic needs. Maintenance of the facility was emphasized during the planning process. Consideration was given to minimizing the amount of painted surfaces. Galvanized or stainless metal work and wood finishes in natural colors were the primary surface treatment. Over-sized gutters and open downspouts were also incorporated into the design.

The Macquarie campus is about 30 years old. It is just beginning to need major mechanical retrofits. A recent study

recommended decommissioning the aging central chilling and heating plant. The study suggested that individual building units would be cheaper to install and maintain. Not much heat is needed, and chiller facilities may be zoned. Many of the services provided by the Building and Grounds Department are contracted. These include security, mail/delivery, and cleaning.

Alan Tracey, Director of Facilities Planning and Management and Pam Esdaile, Senior Policy and Planning Officer were our tour guides at the University of Sydney. In 1850, the University of Sydney was established as Australia's first university, with its central campus located in the heart of Sydney. The student enrollment for 1999 is 36,976 and the total staff figure is 5,524. The original facility is very "Cambridge like" with a wonderful courtyard surrounded by offices and class-

rooms. The Great Hall and the Old Library were very spectacular. Large, exposed, ornate timbers supported the slate roof and stained glass windows surrounded the halls. The Great Hall is used for recitals and graduation ceremonies. A large pipe organ was prominent in the rear. An old tapestry was the backdrop for the stage. Unique multi-stemmed gas candelabras surrounded the perimeter of the room about twenty feet above the floor.

The campus is now a modern research institution, steeped in tradition. The tradition can make change slow

and challenging. Planners are working to keep new facilities in character with the old. For example, the new education building was built to complement an older facility just across the walkway. A nice courtyard with an arched view of the recreation fields was developed. Extra care was given during the planning process to enhance and expand the visual corridor.

A satellite campus was recently established when the state government gave the old mental institution facility to the university. The branch campus facilities are currently used to house the activities of the art department. The university was given a "significant" deferred maintenance opportunity!

It has been said, "all good things must come to an end". Our time in New Zealand and Australia did run out. However, the memories of our visit, the eye-opening ideas we captured, the new friends that we met and the cultural differences we experienced will be cherished forever. Jane and I are grateful to the AAPP Region and to APPA for allowing us this wonderful opportunity. 🏰



Library at James Cook University.



John Parker, Service Manager, James Cook University, Cairns, Australia.

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by Steve Glazner



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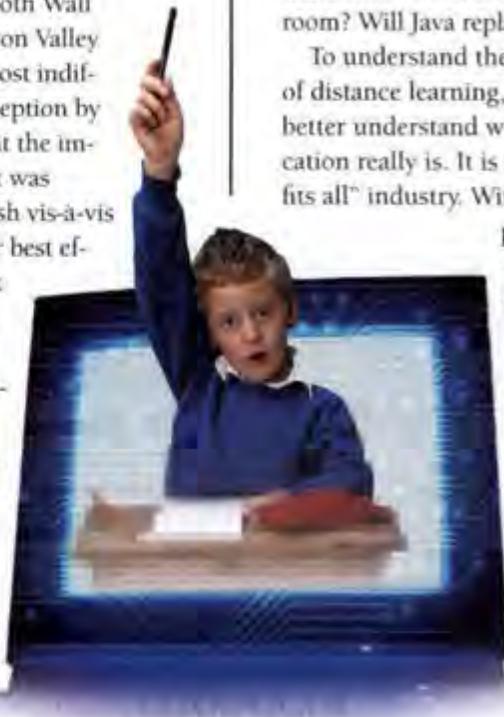


Distance Learning and the Facility Management Profession

by Matt Adams, P.E.

Recent Federal Justice rulings regarding the monopolistic behavior of Microsoft seemed to have little effect on the stock market. Several news programs interviewed industry leaders on both Wall Street and in the Silicon Valley and they seemed almost indifferent. The clear perception by those experts was that the importance of Microsoft was continuing to diminish vis-à-vis the web, despite their best efforts. They feel that it is the web itself and the Internet vehicle that is the real operating system of the future. If this is true, will education and intellectual content become freely distributed over the net? Technical innovations in both hardware, communications technologies, and web-based software suggest that we are already there. The new domain of online and non-traditional education has been given the updated moniker "distance learning." To take it further, a recent University Business conference in New York City used the

Matt Adams is president of The Adams Consulting Group, a management/ engineering consulting firm located in Atlanta, Georgia, specializing in the facility maintenance and management within higher education, school districts, and other institutions. He can be reached at matt@adams-grp.com.



phrase "market driven education." This fast-moving, high-tech jargon seems at conflict with traditional classroom based American education. Are there big changes ahead for the traditional bricks and mortar classroom? Will Java replace janitors?

To understand the potential effects of distance learning, we must first better understand what higher education really is. It is not a "one size fits all" industry. With over 3,600

postsecondary educational institutions in this country, there is a vast array of options, formats, pedagogies, religious affiliations, specialties, and geographic locations.

For example, there are local com-

munity colleges that efficiently educate and even train students to make a fast-track placement into local employment roles. For these students, convenience and cost-effectiveness are important. On the other hand, down the street is a traditional four-year college with a close affiliation with the Roman Catholic Church. Convenience and cost-effectiveness are not nearly as important to students as culture, experience, and educational philosophy. Further down the road is another college. It is called the Microsoft Institute and it holds some classes and tests in space rented from a state university. The students there need cost-effective

education that is convenient and nimble. The course content must change as quickly as the software publisher's products change. What do these institutions of higher learning have in common? They share only the broadest description of post-secondary or college education. Other than this they are vastly different and their facilities requirement are just as different. Regardless of technology, colleges must provide facilities based on either "corporate education," "convenient education," and/or "culture rich education." All three have existed prior to the Internet and they will exist in the Internet world of the future.

There are a host of companies that have formed to serve the distance learning market. Some provide online education like the University of Phoenix. Others are suppliers of software and other supports services. A great many web-based portals and other service ventures have started and even failed this early in the game. It seems that the whole online education opportunity is not a get rich quick scheme after all. That is no surprise to those of us that have worked in higher education for years. Michael E. Eley, senior vice president of Communications Equity Associates, a mutual fund that specializes in education investments, illustrates the lack of propensity for quick change in this industry by wallstreet's deemphasis of it. "Three years ago there were fifteen education analysts on Wall Street. Now there are only five positions." Nevertheless, some of the sharpest minds in education are partnering with the sharp minds of Wall Street. Many of the colleges with significant resources in course content and

faculty minds are exploring ways to capitalize on this asset. Rather than cannibalizing the existing students, all indications are that the course content delivered electronically represents a new market. David Kirp, professor of Public Policy at University of California, Berkeley compares the advent of web-based distance learning's introduction to that of television. "When television was introduced, many thought that the radio would die. We now realize that the communications market simply got much bigger and the various slices just shifted around a little. This too will pass." Most experts in this industry agree with this sentiment.

Financially speaking, institutions of higher learning that own valuable course content will profit from distance learning. There are already a host of colleges in the U.S. that underwrite a portion of the traditional classroom learning operating budget by earnings generated from distance learning programs. For these institutions, "facility management" gains from increased revenue structures served by the same infrastructure. The assumption is that the pre-existing facilities will stand an improved chance of renewal and adaptation funding. On the other side of the coin are those institutions that don't have focus in any of the aforementioned three core specialties. There is concern by some, says Michael Goldstein, a senior partner of Educational Practice with Dow Lohnes & Albertson, that general core classes may become commoditized. In other words, without the hook of culture or convenience, a state school or more general private college may lose revenue dollars for core courses like English 101. Students may have less expensive and more convenient avenues for this coursework. This will reduce the revenue of the college in an area that typically supports the specialized smaller programs. There is concern that the budgets and need for facilities in this particular sector may

be reduced. The history of technological advancement has definite precedent in this area. As institutions or programs within an institution lose all forms of competitive advantage, they go away. Specialization is promoted in an increasing manner.

Once again, the bar is being raised in the non-profit facilities management profession. There is some truth to the expectation of market driven education. Our business is not a straight-forward as the for-profit world where earnings are king. However, we must be more concerned with the *value* that our institution adds to the educational experience. The value-add of traditional education can be any combination of Corporate placement, Convenience, or Culture. If none is present, then traditional bricks and mortar classrooms are in danger of replacement by electronic distance learning. Facility managers will increasingly be called upon to support the sharpening of focus of

educational institutions. Space planning and facility upgrades for unique, fresh, experience intensive, and market sensitive programs will become more common. In lieu of revenue from English 101, some facility managers will learn how to better configure their institutions' space for use by corporate learning groups, and even some of the online university testing centers.

The need for buildings, landscape, and the campus setting is still secure. The advent of distance learning will create more options for more students. The whole market of higher education will grow and grow. Most of this will not be at the traditional college's expense. From now on, college and university facility administrators will become more in tune with the value created by their respective institutions. They will be called upon to become creative and specialized in supporting more focused educational missions. 🏰

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APPA's E-mail Discussion List in Review

by Alycia Eck

When people first log onto the Internet and make their first attempts at websites, e-mail, and discussion lists, hardcore users who have seemingly been raised with computers since their infancy term these new surfers "newbies." More than likely, newbies are new to the world wide web, new to websites, and maybe even new to computers as well. Internet veterans expect some floundering before the fledgling leaps out, spreads their wings, and launches another e-commerce site.

In the same vein, I'll admit that I am a facilities newbie. Before I started working for APPA, I was the one who called to complain about the heating, the air-conditioning, the flickering lights, and the air-conditioning again. I was a champion in the thermostat wars. Yet, after a few months, I learned that there was actually a unit of measurement for clothing insulation to gauge heating/cooling needs. I obviously needed to increase my clothing to 0.9 clo.

So when APPA launched their re-structured e-mail discussion list, APPAinfo, in November 1998, I found myself, a confessed facilities newbie, administering a list dedicated to and peopled by facilities professionals. While I expected to encounter some difficulties, I am pleasantly surprised to find APPAinfo turning into a helpful resource and vibrant online community. Questions are being asked and answered. Sometimes comments elicit more than just an answer or two, but an online discussion of trends.

Alycia Eck is APPA's Internet manager and list administrator for APPAinfo. She can be contacted at alycia@appa.org.

Duck, duck, goose?

Here's a discussion thread I hadn't considered...birds. These birds of a feather certainly do create problems together. The list talked about several solutions—some serious, some seriously funny—to deter these winged pests.

Question: Anyone have suggestions for dealing with a goose problem on athletic fields?

- This is a common problem for golf courses also. One of the national associations for golf course management may have ideas.
- Contact your Fish and Game for a design on a propane cannon that fires on a timer. They use it in Montana to run deer and elk out of hay fields. If that don't work, place two dozen roaster pans around the field, if there smart geese they will get the hint and leave.
- I know of a golf course in Suffolk County, Long Island, that successfully used Labrador retrievers that were taken around the course several times a day until geese got the message. I don't know what they are doing to keep them off, however.
- We recently got some information from Cornell University Press.¹ They have a book and a video tape on controlling geese in urban/suburban areas. I found them informative. We have well over 100 geese on campus that occasionally attack students and visitors. According to the information, Border Collies have been used successfully to encourage the geese to move elsewhere. They are not needed full time, but are brought into the area on an as needed basis. More frequently at first and less often after a level of control is reached. You most likely have a regional or local contingent of Border Collie Breeders. They are usually farm folk and industrious. They

would probably be your best bet in helping to solve your problem. I have two Border Collies and I know for a fact they would work until they dropped from exhaustion to do their owner's bidding.

- One successful but controversial approach discussed in the video is herding the geese into cages during the molt when they don't fly. The geese are then butchered and given to food pantries. Very effective in reducing populations, can be very controversial. Federal and possibly state permits are required.
- We are presently using techniques under a federal permit to make the eggs non-viable. If you remove the eggs they will simply lay another batch. But if you puncture the egg they will continue to incubate the infertile eggs until the breeding season is over. Unfortunately this only stabilizes the population by reducing the number of goslings. Non-migratory geese are surprisingly long lived. The information from Cornell also reports that planting trees and hedges near ponds make suburban areas less attractive.
- Collies and other "distracters" are fairly effective. Believe it or not, white grape juice is an effective deterrent for keeping geese off walkways and paths. Try it; perhaps it could assist with your field situation as well.
- Dogs! There's a special breed that's trained to keep geese off property. I'm sure you've got someone locally already in the business that you can hire to chase them away. I live on a game refuge in Portland, Oregon where we play host to thousands of Canadian geese each year. A few of the farms have made life size figures of coyote's, bald eagles, and humans to place in their fields. It seems to work fine.

- Property owners here in northern Michigan have had luck with installing stakes and stringing survey tape one foot off the ground. The geese will not go under it or over it. I was not a believer until I actually watched a goose approach the tape and become befuddled. I can tell you that they are smart enough to walk the perimeter until they find an opening. Not sure if this is practical, but your discussion topic has sparked such interest, I couldn't resist throwing my two cents worth in.
- Dogs are an excellent way of handling the problem. Many golf courses use working dogs for this purpose. I believe it takes a steady 1-2 weeks to retrain the geese. The message that needs to be imprinted on them is that "this is not a good place to land."
- I just came across an ad in the back of a magazine for "GooseChase" by Bird-X. It is a liquid applied at the rate of one gallon per acre. Their number is 800-662-5021.

Doing the Pigeon

Question: *Does anyone have any information on how to effectively get rid of pigeons? We have tried several things to no avail. Do the wire spikes, electronic barriers, owls, netting work? We also have a limited budget.*

- For years we suffered an infestation of pigeons, and tried all the proprietary and other gadgets. With grain silos only 1.5 km away as the pigeon flies, our buildings provided a desirable residence for the birds. Our local hospital which suffered from the same problem lead the way. They got City and the S.P.C.A. (Society for the Prevention of Cruelty to Animals) approval to use a pest exterminator. Six months later, we started using the same contractor. The birds are shot using a high powered air rifle. The operator works between midnight and 2 a.m. and is careful to remove any carcasses. I think that over a period of about eight years only once has a window been damaged, and we have had no

complaints from the campus population. Pigeons are rarely seen on the campus now. If a group of two or three are seen, the exterminator makes a return visit.

- Our auditorium at is a renovated church that is listed on the state's Register of Historic Places. We too had a major problem with pigeons and their droppings, which fell onto the steps of the main entrance. Each day we were required to sweep the steps to control this. We installed NIXILITE, a product of stainless steel, needle-like spikes around the bell tower. This worked exceptionally well in this area, and was relatively inexpensive. We no longer have pigeons roosting for more than a few seconds! This also does not detract from the appearance of the building as it is not visible to the casual observer, from 40 feet below. This product was installed 6-7 years ago, was inspected this summer and shows now apparent signs of wear.
- We have tried spikes, chemicals, and plastic owls. The pigeons built nests in the spikes, got high on the chemicals and laughed at the owls. We determined that we needed a patented perched pigeon purple poop preventer to preclude the purloined perpetrators from pretentiously positioning their posteriors on our pristine parapets! Yet, in all seriousness, the only effective means of eliminating the problem for us was by installing the bird deterrent system by Avian Flyaway. We have the system on two buildings and are currently planning two more.

APPAinfo currently has over 520 members and the list is growing daily. To join, visit APPA's website at www.appa.org. Click on the Resources tab at the top of the site and follow the links to APPAinfo. We welcome your participation in future discussions! 🏠

Notes:

¹Craven, Scott. *Managing Canada Geese in Urban Environments*. Cornell University Media and Technology Services Resource Center, 7 Cornell Business and Technology Park, Ithaca, NY. Cost \$10 for book, \$19.95 for video. Call 607-255-2090.

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Matrix Control Systems has had the Matrix Lighting Controls system certified by Johnson Controls, Inc. as a Metasys Compatible product. Metasys is the brand name for the Johnson Controls HVAC and intelligent building systems. The N2 Gateway essentially is a translator that allows Metasys and Matrix to communicate with each other. A Matrix lighting control system has the potential to cut your overall lighting costs by 50 percent. For further information call Matrix Control Systems, 800-814-0603.



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July 16-18, 2000—Educational Conference & 87th Annual Meeting Fort Worth, TX.

July 22-24, 2001—Educational Conference & 88th Annual Meeting Montreal, Canada.

APPA Regional Meetings

Sept. 26-29—AAPPA Regional Meeting. Wellington New Zealand.

October 8-11—MAPPA Regional Meeting. Ann Arbor, MI.

October 8-11—ERAPPA Regional Meeting. Burlington, VT.

September 23-26—RMA Regional Meeting. St. George, UT.

October 1-3—PCAPPA Regional Meeting. Long Beach, CA.

September 22-26—CAPPA Regional Meeting. Overland Park KS.

October 7-10—SRAPPA Regional Meeting. Nashville, TN.

Other Events

March 2-4—2nd Annual CSI Project Representative Academy. San Diego, CA. Contact CSI Customer Service, 800-689-2900.

March 5-8—ACUI Annual Conference. New York, NY. Contact the Association of College Unions International, 812-855-8550.

March 7-8—Roof Inspection, Diagnosis & Repair. San Francisco, CA. Contact The Roofing Industry Education Institute, 303-790-7200.

March 20-23—The Council of the Great City Schools Annual Legislative/Policy Conference. Washington, DC. Contact CGCS, 202-393-2427.

March 26-29—ACCED-I 20th Annual Conference. San Diego, CA. Contact The Association of Collegiate Conference and Events Directors International, 970-491-5151.

April 1-4—TECH 2000: Technology Trends in Facilities Management. San Diego, CA. Contact Scott Burns, San Diego State University, 619-594-1710 or sburns@mail.sdsu.edu.

April 1-5—ACPA 76th Annual Convention. "2000 and Beyond Capitalizing on Leadership, Scholarship and Citizenship." Washington, DC. Contact the American College Personnel Association, 202-835-2272.

April 24-28—ThermoSense XXII: Applications in Thermal Imaging. Orlando, FL. Contact, Ralph Dinwiddie, 423-574-7599.

April 27-28—Roof Assessment Management. Chicago, IL. Contact The Roofing Industry Education Institute, 303-790-7200.

May 22-25—Roof Repair & Maintenance. Denver, CO. Contact The Roofing Industry Education Institute, 303-790-7200.

June 4-6—CAUBO Conference. Jasper Park Lodge, Jasper AB. Contact the Canadian Association of University Business Officers, 613-563-1236.

June 6-10—ACUHO-I National Housing Training Institute. Pittsburgh, PA. Contact Norb Dunkel, 352-392-2171 ext. x139.

July 9-11—ACUHO-I 52nd Annual Conference. Pittsburgh, PA. Contact the Association of College and University Housing Officers, 614-292-0099.

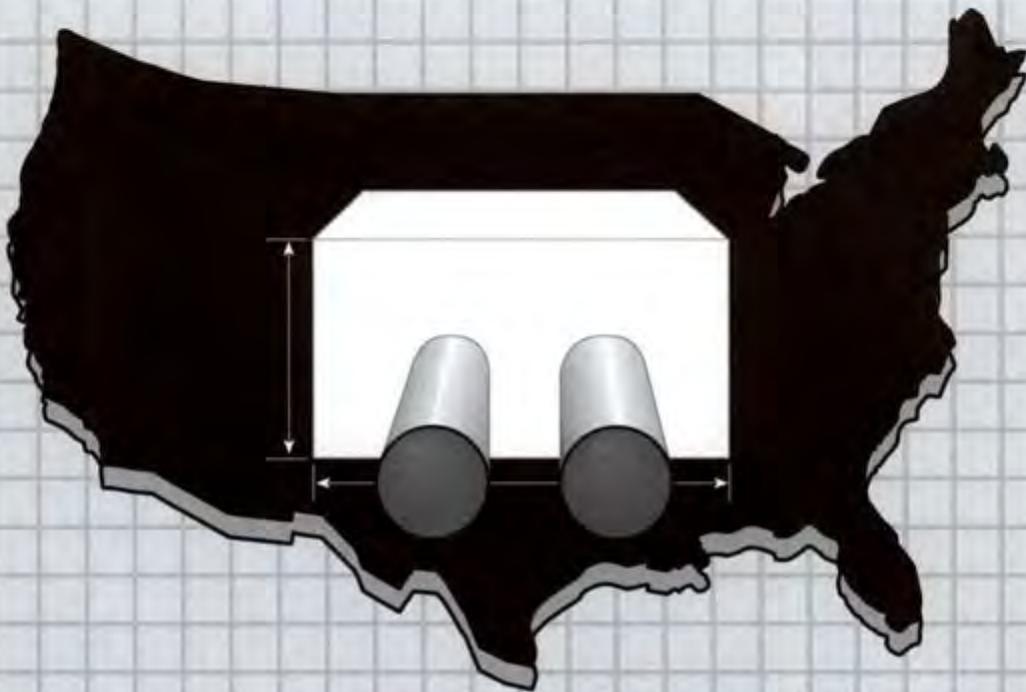
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