



# At the Helm of APPA's Body of Knowledge (BOK)

By Anita Dosik

APPAs Body of Knowledge (BOK) is available to all members online, as a searchable, digital database. The BOK develops, updates, and disseminates the foundational content required by facilities professionals at colleges, universities, schools, museums, and other nonprofit, educational organizations to do their jobs. The BOK is ongoing, and updated sections are posted as soon as they are peer reviewed and approved for publication.

It takes many volunteers to keep APPA's BOK up-to-date, relevant, and informative. At the helm, is the editor-in-chief, APPA Fellow Maggie Kinnaman, as well as four content coordinators, who, working with the authors, editorial board, peer reviewers, and APPA staff, make the BOK a reality.

At this time we are pleased to announce a new content coordinator, Steve Maruszewski, for Part 4 (Planning, Design, and Construction.) We welcome Steve and look forward to the many contributions he will be making to the continued success of APPA's BOK. Steve will take over from Don Guckert, who was the PDC content coordinator for the past year and a half.

Here is a current listing of the BOK chapters and their authors, along with information about the content coordinators in charge of each part.

## PART 1, GENERAL ADMINISTRATION AND MANAGEMENT



**Jack Hug, APPA Fellow**  
Hug Consulting and  
Management Services  
Colorado Springs, CO

Jack has been active professionally during the past 52 years, working in facilities management and university administration; he's also a past APPA President. Jack has served as assistant vice chancellor for the University of California, San Diego from 1984 until his retirement in April 2002. During this time he has served as director of UCSD's Physical Plant

Services for the main campus located in La Jolla, California, and for the UCSD Medical Center located in San Diego.

Prior to working at UCSD, Jack served as chief facilities officer at several other institutions of higher education including major research universities, and large, medium, and small institutions, within both public and private sectors.

Jack offers consulting services on facilities management, organizational performance management, and a variety of offerings for specific facility management service support departments. In his role as president of Hug Consulting and Management Services, Jack serves as the principal consultant and performs

organizational reviews and service performance assessments based on criteria and scope customized to meet an institution's specific area of interest and need.

### Chapters in Part 1 of the BOK:

- **Building an Effective Workforce**  
*By Anita Zimmerman and John De Souza*
- **Change Management**  
*By John Morris, P.E., CEFP*
- **Communication**  
*By Robert Hascall and Karen M. Salisbury*
- **Financial Analysis and Control**  
*By Mohammad Qayoumi, Ph.D.*
- **Leadership**  
*By William Daigneau, APPA Fellow*
- **Managing Ethically**  
*By E. Lander Medlin*
- **Modern Budgeting Issues**  
*By William Gardiner*
- **Organization**  
*By Jack Hug, APPA Fellow*
- **Overview of Accounting Systems**  
*By Burr Millsap*
- **Staff Development**  
*By Suzanne Hilleman, MBA, SPHR*
- **Strategic Role of Human Resources**  
*By Andrea Balestrieri*
- **Strategy and Leadership**  
*By Brenda Albright*

## PART 2 – OPERATIONS AND MAINTENANCE



**Gary L. Reynolds, P.E.,  
APPA Fellow**  
University of Colorado –  
Colorado Springs  
Executive Director of Facilities  
Services

Gary has a BS and MS in Mechanical engineering from Iowa State University and has 33 years' experience in higher education facilities at several large state institutions and a small private institution. He has been a member of APPA since 1981 and been involved in various positions in APPA, including MAPPA President and APPA President. He is currently a faculty member of the Institute for Facilities Management and a

past member of the Leadership Academy. He is currently co-director of the Center for Facilities Research, which was created during his presidency. He is an editor of a book published on quality management by APPA and author of numerous articles in *Facilities Manager* magazine.

### Chapters in Part 2 of the BOK:

- **Building Architectural and Structural Systems**  
By Steven Thweatt
- **Building Control Systems**  
By Gary Reynolds, APPA Fellow
- **Building Electrical Systems**  
By Mike Anthony
- **Building Fire Protection**  
By John DeLaHunt, MBA, ARM
- **Building Interiors**  
By Jean Sebben
- **Building Mechanical Systems**  
By Gary Reynolds, APPA Fellow
- **Campus Security**  
By Christopher Blake
- **Capital Renewal and Deferred Maintenance**  
By Harvey Kaiser
- **Custodial Services**  
By Alan Bigger, APPA Fellow
- **Elevator Systems**  
By Jay Popp
- **Emergency Preparedness and Business Continuity**  
By John DeLaHunt, MBA, ARM
- **Environmental Health and Safety**  
By Ralph Allen

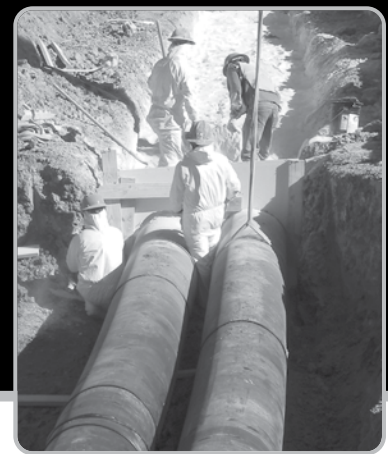
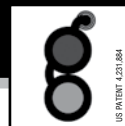
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# BOK

## Body of Knowledge

[www.appa.org/bok](http://www.appa.org/bok)

- **Facilities Condition Assessment**  
*By Harvey Kaiser*
- **Facilities Maintenance and Operations**  
*By Gary Reynolds, APPA Fellow*
- **Grounds Maintenance and Operations**  
*By John Lawter, EFP and Rob Doletzky and Chad Godfrey and Bruce Morrison*
- **Recapitalization Management**  
*By Douglas Christensen, APPA Fellow*
- **Solid Waste and Recycling**  
*By Phillip Melnick*
- **Work Management**  
*By Mark Webb, EFP*

### PART 3 – ENERGY, UTILITIES, AND ENVIRONMENTAL STEWARDSHIP



**Darryl K. Boyce, P.Eng., FASHRAE**

Carleton University  
Assistant Vice President of Facility Management and Planning  
ASHRAE Vice President

Darryl began his university career as a mechanical designer at the University of Alberta in 1974. In 1978, he left his full-time position to attend university full-time to earn a B.S. in mechanical engineering. During this time, he also worked part-time as a mechanical designer in the Department of Physical Plant.

Upon graduating in 1982, he returned to full-time employment as a senior energy analyst. In 1986, he assumed the position of manager of energy services at the University of Western Ontario, served in various roles at the university, and was promoted to the position of associate director of physical plant (Facilities Engineering and Construction).

In 1998, Darryl became director of physical plant at Carleton University and now holds the position of assistant vice president (Facilities Management and Planning).

He completed the mechanical engineering technology program at the British Columbia Institute of Technology in 1973 and received a Bachelor of Science in mechanical engineering from the University of Alberta in 1982.

As vice president of ASHRAE, Darryl is a member of the Board of Directors and the Executive Committee and serves as chair of the Publishing and Education Council.

#### **Chapters in Part 3 of the BOK:**

- **Campus Utility Systems Master Planning**  
*By John Tysseling, Ph.D. and Darryl Boyce*
- **Central Heating Plants**  
*By Antoine D'Amour and Richard Forget*
- **Central Monitoring and Control Systems**  
*By Carl Ruther*
- **Cooling Systems and Thermal Energy Storage**  
*By Kent Peterson, P.E., LEED AP*
- **Data and Voice Network Infrastructure**  
*By Denis Levesque and Mike Milne*
- **Domestic and Fire Protection Water Supply and Distribution Systems**  
*By Susanne Cordery-Cotter, P.E. and Carol Dollard, P.E., CWP, LEED AP*
- **Electrical Distribution Systems**  
*By Aravind Batra*
- **Energy Generation Alternatives**  
*By Donald Schmidt, Ph.D., P.E. and Darryl Boyce*

- **Energy Management and Conservation**  
*By Reza Karkia*
- **Energy Supply Alternatives**  
*By Pete Sandberg*
- **Primary Fuel Management**  
*By Cheryl L. Gomez and Warren W. Weeks*
- **Roadmap for Campus Environmental Sustainability**  
*By Jiri Skopek, OAA, MCIP*
- **Sanitary Sewers and Storm Water Management Systems**  
*By John McEwan*

### PART 4 – PLANNING, DESIGN, AND CONSTRUCTION



**Steven Maruszewski, P.E., CEFP, LEED AP**  
Pennsylvania State University  
Assistant Vice President for Physical Plant

Steve is currently the assistant vice president for physical plant at Penn State. Steve began his career there in February 1995. He jointly oversees a workforce of over 1,300 professional, technical service, and administrative employees. His responsibilities have also included leading the university's Environmental Stewardship Strategy, co-chairing the university's Sustainability

Strategic Planning process and leading the efforts associated with defining and managing the campus deferred maintenance and capital renewal needs. Steve started his career working as a consulting engineer for major architectural engineering firms, and just prior to joining Penn State, was a managing principal in two multi-discipline consulting engineering firms.

Steve is a Penn State graduate from the architectural engineering program, and in 2010 was honored by the Architectural Engineering Department by being named a Centennial Fellow.

**Chapters in Part 4 of the BOK:**

- **The Building Commissioning Process**  
*By Richard Casault, P.E.*
- **Building Information Modeling**  
*By Jim Jacobi*
- **Capital Budgeting**  
*By Alan Matthews and Diane Cook*
- **Construction Management**  
*By Jeffrey Gee*
- **Design Management**  
*By Michael Haggans*
- **Infrastructure Planning**  
*By Frederick Mayer and William Daigneau, APPA Fellow*
- **In-house Design/Construction Services**  
*By Robert W. Unrath*
- **Master Planning**  
*By Robert E. Kitamura and Joseph E. Bilotta and Linda Dalton and Michael Multari*
- **Organization and Management of Capital Projects**  
*By David Allard and Tony Fort*
- **Programming**  
*By Ira Fink*
- **Project Delivery**  
*By Robert R. Smith*
- **Real Estate**  
*By Jeffrey Lipton*

- **Renovations**  
*By Mark Thaler*
- **Site Development**  
*By Joseph A. Hibbard*
- **Space Planning and Administration**  
*By Joseph E. Bilotta*

- **Sustainable Design and Construction**  
*By Andrew S. McBride*
- **Value Management**  
*By Steven Thweatt*

You can access the BOK by going to [www.appa.org](http://www.appa.org) and clicking on myAPPA, where you will be asked to log in, and then click on the BOK. ☞



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