



The APPA Standards Initiative: Creating ANSI Standards for Total Cost of Ownership

By Brooks Baker



APPA International is now launching an ANSI standards strategy, on behalf of the education sector, that will result in a suite of Total Cost of Ownership Standards produced within APPA's TCO Standards Writing Work Group.

This exciting new initiative was launched by the APPA Standards and Codes Council (ASCC), following approval of APPA's Accredited Standards Developer (ASD) status by the American National Standards Institute (ANSI) in early April. A steering group, comprising APPA Past President Doug Christensen (Brigham Young University, retired), Ana Thiemer (University of Texas at Austin) and Dana Smith (retired, National Institute of Building Sciences) was launched on April 30 and tasked by the ASCC to establish a TCO Standards Framework. The draft framework was presented at two, well-attended briefings that occurred at the APPA 2015 Annual Conference in Chicago, where it received much positive comment and response.

The next steps to be taken by the ASCC are to formally announce the formation of the APPA TCO Standards Writing Work Group. APPA is now preparing a formal participation announcement and will be working with ANSI to gather interested stakeholders and members of the Work Group. The Work Group will utilize APPA's *Accredited Procedures for the Development*

of American National Standards to seek consensus, finalize, and publish APPA's ANSI TCO standards.

WHAT IS TOTAL COST OF OWNERSHIP?

Collectively, facilities and infrastructure at most if not all educational campuses represent the largest of any assets owned by an institution, to include endowments. An ongoing challenge facing educational facilities, and the facilities industry in general, is its ability to define, quantify, and consistently manage a building or facility by following the principles of Total Cost of Ownership, and through all stages of a building's life: project delivery (design and construction phase); maintenance and operations; and recapitalization. Maximizing the efficiency and use of the built environment requires a holistic approach, look-

ing closely at each of these three phases and accurately projecting costs over a building's full life. TCO provides an opportunity for facilities professionals to accomplish one or more of the following:

- Recognition of when to mitigate future excessive costs based on current maintenance and repair costs;
- Knowledge on how to lengthen the life of the investment;
- Wisdom to determine which assets are most economical in their business environment;
- Intelligence on future cash flow projection over any length of time;
- Knowledge to create a virtual annual plan for new and existing investments; and
- Insight on both unnecessary expenditures and resourceful expenditures.

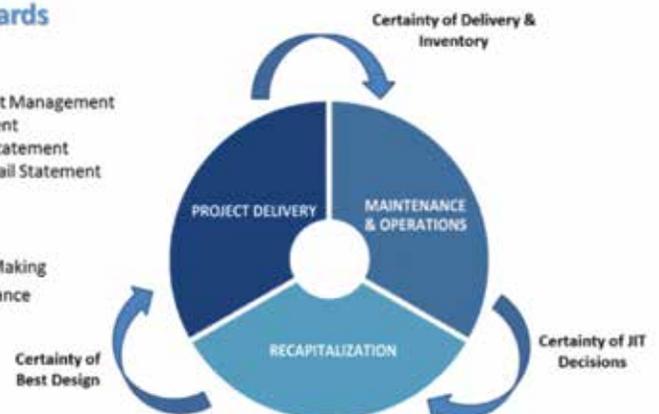
ANSI – TCO Standards

Phase 1

- Overview Sustaining Asset Management and "ALL—Cost" Statement
- Industry Asset ALL-Cost Statement
- Hierarchical Depth of Detail Statement

Phase 2

- Certainty of Inventory
- Certainty of JIT Decision Making
- Certainty of Best Performance and Learning



There are three key attributes of TCO:

PROVIDES CERTAINTY OF DELIVERY AND INVENTORY

Let's look at the Operations and Maintenance (O&M) organization. To perform most effectively, optimally you have in place an accurate listing and database of all building assets. It enables the O&M organization to more accurately assess needs and to establish preventive and predictive maintenance requirements.

CERTAINTY OF JUST-IN-TIME DECISIONS

TCO implementation requires a full accounting of a building's assets and tracked performance throughout the building's life. Such collected information can be used to make "just in time" decision-making for existing and future buildings.

CERTAINTY OF BEST DESIGN AND BUILD

With data collected from existing facilities, to include life of building materials and systems, it is possible for owners, designers and planners to make informed and cost-efficient decisions with regard to future refurbishing or new building design and construction projects. In short, performance data of existing facilities provides a blueprint for best in class design.

THE PATH FORWARD

APPA will now develop a list of interested experts and stakeholders who wish to participate on the APPA TCO Standards Writing Work Group. Under APPA's ANSI-approved operating procedures, participants in the Work Group will be identified under one of three interest categories:

User Interest – Educational institutions that maintain and support facilities, grounds, and physical assets used in the delivery of academic teaching, education, and instruction.

Producers Interest – The Producers interest category is comprised of manu-

facturers or suppliers of products and services used by educational institutions.

General Interest – Participants under this category include those with reasonable interest and experience in education, and who does not qualify as either a Producer or User.

The APPA Standards and Codes Council looks forward to this exciting

milestone for APPA and the education sector. For more information, please contact APPA's Associate Vice President John Bernhards via e-mail at john@appa.org. ☎

Brooks Baker is a past president and emeritus member of APPA, and serves as chair of the APPA Standards and Codes Council.

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