

CMAA Advisor

The Official Publication of the Construction Management Association of America



Downtown Seoul,
Republic of Korea

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CMAA Study Measures Agency CM Market Share for the First Time

For the first time, a targeted industry research project has measured the market share of Agency Construction Management across all commonly used Project Delivery Methods and types of structures.

The study, conducted by CMAA with support from McGraw-Hill Construction, found that Agency CM was used in 16 percent of all projects studied, including a 14 percent share of private sector projects and 18 percent of public projects.

Public buildings showed the greatest reliance on Agency CM, with 24 percent of the 2,500-plus projects in the study sample making use of the professional service.

The study of Agency CM is part of a larger research project undertaken by CMAA on behalf of a major engineering and construction company headquartered in South Korea. The larger study includes a detailed description of laws and regulations shaping the practice of CM in the United States, the history of CM's development here, and efforts underway to address workforce issues. As part of the study, the research team measured use of Agency CM in connection with all major Project Delivery Methods.

The complete report is scheduled for delivery to the client in February, but the portions examining the status of Agency CM in the marketplace were completed this fall. CMAA made a preliminary presentation of the study in Seoul, Republic of Korea, in November.

To gauge where Agency CM stands in today's market, CMAA retained McGraw-Hill Construction to do a comprehensive evaluation of major construction projects launched in the United States since January 1, 2007. The study sample included 2,553 projects that each had a contract value of \$1 million or more. It embraced projects in 24 structural categories, including both buildings and non-building projects.

The 2,553 projects in the study sample had a total value of \$73 billion.

In addition to gathering data from MHC's encyclopedic Dodge Reports database, the study team made telephone contact with leaders of individual projects to fill in gaps and clarify ambiguous information in the Dodge Reports. The result is the first comprehensive study of Agency CM in connection with various Project Delivery Methods.

Among the highlights of this watershed study are these findings:

- Agency CM's market share is 16 percent of all projects, including 14 percent of private projects and 18 percent of public sector work.
- In the buildings component, Agency CM's market share is 17 percent, including a 24 percent share of public buildings.

[Continued on pages 4 and 5](#)

Chairman's Report

Chairman of the Board

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CMAA is a construction industry association of 5,400 firms and professionals who provide management services to owners who are planning, designing and constructing capital facilities and infrastructure projects.

Our Mission is to Promote and Enhance Leadership, Professionalism and Excellence in Managing the Development and Construction of Projects and Programs.

CM Advisor, published bi-monthly by the Construction Management Association of America, reports on and follows the industry as a service to its members. Submission of articles, ideas and suggestions is appreciated and encouraged.



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ISSN 1084-75327

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CMAA's New "Tag Line" Opens Global Perspective

By Thomas W. Bishop, PE
URS Corporation

You may have noticed – on our website, as well as in this issue of *CM Advisor* – that we have added something to our familiar logo. We have a new “tag line” that will appear regularly with the logo in our promotional materials and other settings.

The process leading to this new tag line began with a sense that two aspects of CMAA's contribution are not easily recognizable from our name. The first was the leading role we play in program management within the construction industry and the second related to the fact that international opportunities for our members were increasing. Regarding this item, CMAA wanted to be more active in global markets, and the words “Of America” in our name were needlessly limiting.

The Board quickly agreed, however, that changing our name would be unwise. We have achieved significant recognition for our name and logo in recent years, and transitioning to an entirely new identity would be difficult and time-consuming. We noted a number of other associations that have opted to keep their familiar logo and initials and add a sentence or phrase giving a better understanding of the association's mission.

The Board asked staff to develop possible tag lines to go with our CMAA logo. Their suggestions were circulated among the Board members and discussed again at our Leadership Forum in Baltimore. The selected tag line got a final vote of approval from the Board during our meeting in San Francisco in October. It is:

***CMAA – Advancing Professional
Construction and Program
Management Worldwide.***



We believe this succinctly states what CMAA is and what we do.

In addition to being a positive force in Program Management, another of our goals is to reinforce CMAA's commitment to the global marketplace. Our CM Standards of Practice, as applied in the United States, are respected and emulated worldwide. Our headquarters regularly receives research inquiries, requests for visits, and other communications from all over the world.

In addition, the lead story in this *Advisor* details the findings of a major research project we are completing for a client based in the Republic of Korea. Our relationship with the Chartered Institute of Building in the UK will also continue to expand in 2009.

We have also revived our International Committee, under the chairmanship of Bob Bennett of Rabco. The committee has already identified an impressive number of international opportunities it will pursue in the coming year.

With all of these activities, we hope truly to “Advance Professional Construction and Program Management Worldwide.” **CM**

Board Adopts 2009 Business Plan

Looking toward an uncertain and potentially difficult 2009, the Board of Directors has adopted a fiscally conservative Business Plan for the year which nevertheless incorporates a number of new initiatives and actions to add value to CMAA membership.

Among the areas CMAA will emphasize in its effort to build success in 2009 are:

- Increasing membership among large owner organizations, both public and private.
- Strengthening alliances with such key groups as the Society of American Military Engineers (SAME) and the Chartered Institute of Building (CIOB).
- Expanding Professional Development programming, including completing the rollout of eight online SOP Certificate Modules during the first quarter.

- Building CMAA's market recognition as the industry expert in emerging technologies, Program Management and related areas.
- Completing and promoting the new edition of *CM Standards of Practice*.
- Improving the association website, *CM Advisor* newsletter, bookstore and other familiar programs.

"In facing the prospect of a difficult year, CMAA benefits from the fact that the association's costs have always been under strict control and its business operations have been highly streamlined and efficient," noted CMAA Chair Tom Bishop. "Far from retrenching in the face of recession, our Business Plan for 2009 anticipates some important enhancements and additions...but stresses things that can be accomplished with existing resources."

The 2009 Business Plan identifies these five goals that will guide CMAA's activities in the coming year:

1. Promote national and international recognition of professional construction management services for capital project execution.
2. Enhance professional practice through professional development of practitioners.
3. Provide advocacy on behalf of the CM industry throughout government.
4. To represent all segments in the construction management industry.
5. Promote research and development of construction management practices. [CM](#)

Leadership Forum Offers Follow-Up Evaluations

More than 400 industry professionals are expected to attend this year's Spring Leadership Forum in Scottsdale, Ariz. on May 17 – 19, 2009.

The forum will be held at the Westin Kierland Hotel.

Last year, educational sessions were structured to appeal to CM practitioners at different career stages, allowing attendees to make educated choices about which sessions would be most relevant. This element of "career progression" was well received by members and will be implemented again this year.

At this year's forum, for the first time, CMAA will conduct "level two" evaluations of educational sessions. Two months after the forum, CMAA will survey the leadership of those who participated in selected sessions to determine the value added by the instruction. CMAA will identify the behavioral changes, and/or the new techniques and technologies implemented as a consequence of the discussion/instruction. Results of the surveys will be shared with the presenters, and used to identify which sessions provide the highest measurable value.



The program will encompass exciting breakout educational sessions covering the latest trends and best practices pertaining to leadership, emerging technologies, and future issues and opportunities. The Forum will also offer a variety of unmatched networking opportunities.

Registration is set to be open no later than March 1, 2009. Stay tuned to www.cmaanet.org for the latest updates! [CM](#)

CMAA Study Measures Agency CM Market Share for the First Time, Continued from page 1

Percentage of projects using Agency CM

	% 5 Mil or Less	% >5 Mil to 10 Mil	% >10 Mil to 25 Mil	% >25 Mil to 50 Mil	% >50 Mil	All Projects
Private	12%	10%	13%	18%	20%	14%
Public	10%	16%	21%	24%	25%	18%
Total	11%	13%	17%	21%	22%	16%
Buildings:						
Private	22%	15%	25%	19%	19%	14%
Public	11%	19%	35%	19%	16%	24%
Total	11%	14%	19%	22%	22%	17%
Nonbuilding:						
Private	57%	0%	0%	14%	29%	19%
Public	16%	21%	34%	19%	10%	14%
Total	11%	12%	14%	18%	21%	14%
All Public:						
County	15%	21%	38%	17%	9%	22%
Federal	10%	10%	20%	40%	20%	11%
State	7%	18%	25%	23%	27%	12%
Total	10%	16%	21%	24%	25%	18%

Agency CM Use by PDM

	% Projects	% Value	CM Agency Projects	CM Agency Project Valuation	Total Projects Surveyed	Total Value on Projects Surveyed
CM at Risk	1%	3%	2	\$ 553,500,000	387	\$ 18,509,105,700
Design Bid Build	14%	22%	202	\$ 7,630,629,962	1439	\$ 34,851,498,839
Design Build	10%	21%	41	\$ 2,526,354,442	419	\$ 11,965,471,981
Multiple Prime	54%	69%	165	\$ 5,075,285,263	304	\$ 7,348,058,412
Other					4	\$ 39,999,998
Total	16%	22%	410	\$ 15,785,769,667	2,553	\$ 72,714,134,930
Buildings:						
CM at Risk	1%	4%	2	\$ 553,500,000	351	\$ 13,783,792,457
Design Bid Build	15%	21%	142	\$ 5,310,897,810	962	\$ 25,376,282,945
Design Build	9%	24%	26	\$ 2,128,307,259	294	\$ 8,821,972,929
Multiple Prime	62%	75%	139	\$ 4,580,957,841	226	\$ 6,136,923,484
Other					4	\$ 39,999,998
Total	17%	23%	309	\$ 12,573,662,910	1,837	\$ 54,158,971,813
Nonbuilding:						
CM at Risk					36	\$ 4,725,313,243
Design Bid Build	13%	24%	60	\$ 2,319,732,152	477	\$ 9,475,215,894
Design Build	12%	13%	15	\$ 398,047,183	125	\$ 3,143,499,052
Multiple Prime	33%	41%	26	\$ 494,327,422	78	\$ 1,211,134,928
Other						
Total	14%	17%	101	\$ 3,212,106,757	716	\$ 18,555,163,117

- Breaking the public sector numbers down further, the study found that Agency CM was used in 22 percent of all county construction projects, a high share that CMAA believes probably reflects wider use of Agency CM in school construction.
- The structure types in which Agency CM enjoys the greatest adoption (by percentage of projects) are schools K-12 (28 percent), government buildings (27 percent), college/university buildings (24 percent), hospitals (24 percent) and recreational facilities (23 percent).

The study also examined Agency CM's market share calculated by percentage of total contract value. This analysis identified several structural categories in which Agency CM was used on a relatively smaller number of projects generating a higher total value. For example, Agency CM was used on 12 percent of all studied manufacturing buildings, but these projects accounted for 40 percent of the total value of construction in that sector.

Investigating the use of Agency CM in conjunction with different PDMs, the study found the greatest use of fee-based CM in projects using Multiple Prime Contracting. In this area, 54 percent of all projects and 69 percent of all contract value were delivered using an Agent CM.

Agency CM's second largest market presence was among projects delivered with traditional Design-Bid-Build. In this area, Agency CM accounted for 14 percent of all projects and 22 percent of all value.

In conjunction with Design-Build, Agency CM had a 10 percent share of projects and accounted for 21 percent of value.

The study also quantified the market shares of the leading Project Delivery Methods, finding that Design-Bid-Build still led the market with 56 percent of all projects and 48 percent of all contract value. Design-Build ranked second with 16 percent of projects and value. Next came CM At Risk with 15 percent of all projects, accounting for 25 percent of contract value.

CMAA President Bruce D'Agostino commented, "We wondered, when we first saw these results, whether we ought to be pleased or disappointed by the market share numbers. The answer was, neither. We have no previous benchmark to which to compare these results. The current study is, simply, the first time this data has ever been compiled."

D'Agostino did, however, point out some conclusions that can be drawn.

"It seems clear that Agency CM has only begun to realize its potential in the market," he said. "Across all structure types, Agency CM has achieved major gains but is still used in a minority of projects. This further indicates that even in the face of a downturn in the construction industry at large, with consistent and targeted effort we can continue to grow business for our members."

The complete findings of this study will be published by CMAA during the first quarter of 2009. [CM](#)

PD Department Launches "One-Stop Shopping" for Programs

The CMAA University logo, located in the upper right hand corner of CMAA's homepage, has been created in an effort to centralize all CMAA's educational offerings. Click to gain access to the most up-to-date schedule of events, ranging from online webinars to specialized, in person workshops.

In line with its goal to be "the foremost source of quality continuing education for every stage of a career," CMAA has worked to establish a comprehensive selection of PD programs designed for industry professionals at every level. Programs offered regularly include: Standards of Practice Courses, Themed Workshops, Interactive Web Seminars and the new Online Certificate Program.

The Online Certificate Program allows participants to study and master each of our eight "Standards of Practice" modules online and in a self-paced environment. All courses are presented by highly experienced CM veterans who share their expertise and insight with the learner, and all CMAA SOP Certificate modules provide CEU/LU/PDH credits. Four modules are currently available on the website, and the remaining four are expected to become available by March 2009.

Whether you're brushing up on CMAA's "Standards of Practice," looking to gain a better understanding of BIM, or keeping your company up-to-speed with Sustainable building, CMAA University has the resources you need, and it's all just one click away! [CM](#)



Look Who's Joined CMAA Lately!

A list of companies and individuals who have joined CMAA recently can be found online at www.cmaanet.org/newmembers

New for 09: “Poster Session”

CMAA will add a significant enhancement to the 2009 Exhibit Hall by staging a poster display in the hall during exhibit hours.

Poster sessions are a common feature of professional, scientific and technical conferences. They allow researchers and others to present their work in a convenient, inexpensive poster display, without the complexities and commitment of staging a full-scale breakout session. Often poster session slots are offered to people with work in progress or relatively modest projects that may not merit a place on the regular agenda but are nonetheless interesting.

Students, faculty, and industry research organizations will be among the most appropriate presenters at the CMAA Poster Session, but exhibitors who conduct or sponsor research will also be invited to display, along with industry professionals who submit presentation proposals for the Conference Professional Development program but aren't selected for a time slot.

CMAA President Bruce D'Agostino points out several ways the new displays add value. “The posters will add to the Professional Development content of the Conference and bring a valuable scholarly dimension to the exhibit hall,” he notes. “They will give attendees an additional reason to spend more time in the hall, and serve as powerful conversation-starters during such gatherings as the Monday evening social reception. Finally, the posters will further solidify CMAA's position as the foremost knowledge resource in the Construction and Program Management industry.”

Additional details of the program will be announced in the spring. [CM](#)

2009 Exhibit Space Now Available

After selling out 60 booths in 2008 – an increase of nearly one-third over the previous year – the CMAA Annual Trade Show is now accepting booth space applications for 2009 in Orlando.

The Trade Show is part of the National Conference, which will take place on October 25 – 27.

For 2009, CMAA has expanded both the total exhibit hall hours and the number of “exclusive” hours, i.e., times the hall is open and no other Conference events are underway to compete for attendees' attention. In addition, CMAA will repeat the very popular Exhibit Hall Guide launched in 2008.

This eight-page supplement included a hall floor plan, exhibitor list, and display advertisements from many exhibitors. It was bound into the pre-Conference issue of *CM Advisor* and distributed onsite as a convenient guide to the exhibits.

Part of the success of the 2008 show was due to a growing recognition that no other event enables exhibitors to communicate directly with Construction Managers. For example, Synchro displayed its 4D BIM construction simulation software in 2008, and



Global Marketing Director/Senior VP David B. Lentz commented, “While we work hard to gain a presence for Synchro at several major trade shows each year, no show reaches Construction Managers like CMAA. The show is timely, the sessions focus on the leading edge for the industry, the venue is attractive and the people who manage the trade show are incredibly capable professionals.” [CM](#)

CMAA Adopts New “Tag Line”

In order to promote a more accurate understanding of CMAA, the Board of Directors has approved a new tag line that will appear alongside the CMAA logo:

CMAA – Advancing Construction and Program Management Worldwide.

At the National Conference in October, board members approved the change, agreeing that it succinctly states what CMAA is, and what it does.

“In addition to being a positive force in Program Management, another of our goals, is to reinforce CMAA's commitment to the global marketplace. Our

CM Standards of Practice, as applied in the United States, are respected and emulated worldwide,” said CMAA chair Tom Bishop.

CMAA plays an important role in Program Management in the construction industry, which the new tag line makes more apparent. CMAA and its members actively seek to share knowledge, form partnerships, and do business with international clients. For all these reasons, the new tag line avoids implying any boundaries on the association's activities. [CM](#)

Career HQ Covers Full Spectrum of Jobs

CMAA's online Career Headquarters has emerged as a popular tool for employers to fill all kinds of jobs from entry to "C" level, and has attracted hundreds of resumes from highly qualified job seekers.

During 2008, for instance, companies, executive search firms and others posted 22 "executive management" jobs on the Career HQ site. These job openings attracted nearly 120 applicants.

CMAA has promoted the Career HQ to college and university CM departments as a powerful way for new grads to land their first job, but this 2008 data indicates employers are scanning the site for prospective top-level leaders, as well.

The most popular job category for posted openings was "Construction Management," in which more than 200 jobs have been posted in 2008, drawing nearly 700 applications. Next came Project Management, with 124 jobs posted and 500 applications submitted. In all, more than 670 jobs were advertised on the Career HQ in 2008, and more than 2,500 applications were submitted in answer to these postings.

Employers pay a fee to post their job openings on the Career HQ, but the service is free to job seekers. CMAA has worked in 2008 to expand the cadre of job seekers using the Career HQ, particularly by finalizing an agreement with the Project Management Institute (PMI) by which PMI's more than 5,000 registered job bank users can also post their resumes and browse available jobs at the CMAA Career HQ.

The resume library at the CMAA site has grown to more than 1,300, in 21 categories ranging from business development to commissioning. The largest numbers of resumes have been posted by people seeking Project Management and Construction Management positions, but more than 60 resumes have been put online by prospective top managers, as well.

The CMAA Career Headquarters is accessible directly from the association's home page. [CM](#)



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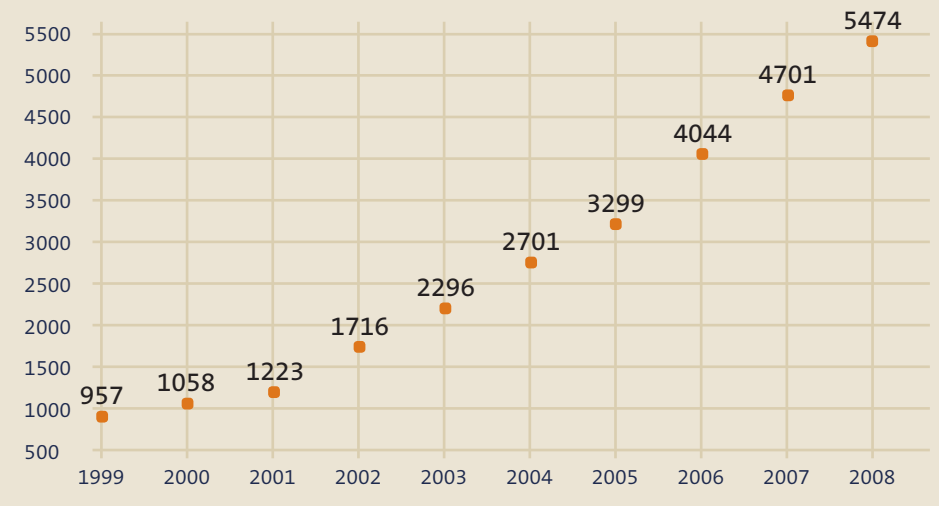
WWW.MBPCE.COM

CMAA Reaches Membership Record – Again

CMAA's decade-long record of steady membership growth continued this year as the number reached 5,474, a 1,448 member increase since 2007.

Additionally, a new membership category has been introduced, the Large Owner Organization category. The new category allows 120 individuals belonging to an organization full membership, and gives online member access and several membership benefits to every employee. Two Large Owner Organizations will join CMAA in the New Year: US General Services Administration and the US Army Corps of Engineers. **CM**

CMAA 10-Year Growth Chart



Financial Crisis Will Drive P3's, Luchetti Says

The nation's financial crisis will drive increased interest in Public Private Partnerships as a means of financing infrastructure improvements, but P3's are not "the" answer for every need, according to Peter Luchetti, founder of Table Rock Capital, the latest guest on the *CMAA Radio* series of programs.

The new *CMAA Radio* interview can be accessed from the association's home page. In it, Luchetti describes what private equity investors are looking for in a P3 opportunity and how some public perceptions must change in order to realize the benefits of this new project execution option.

"There's this perception that these (roads, etc.) are public assets owned by the public and it's just downright wrong to move these assets into an ownership structure that involves somebody other than the government," Luchetti says. "That's an unfortunate perception when you consider the vast majority of government debt in this country today is owned by foreign investors, or by private entities like pension funds and 401(K)'s."

The upside from P3's, Luchetti says, is the opportunity to save 15 to 30 percent over the life of a project, from design to ongoing operations.

"If you look across the entirety of the economy and say to yourself, I can save 15 to 20 percent over the life cycle of the asset...it's a good thing for the economy and a good thing for society," Luchetti says. "It makes us more competitive globally, it makes the economy function better, and it makes everything work in a more efficient way."

On the other hand, "if that life cycle cost savings is not available, my recommendation would be to not do it."

Looking toward wider use of P3's in the future, Luchetti commented, "The financial crisis is going to drive this process. I wish it were not true, I wish it did not happen this way. The crisis causes people to be more focused on improvement. Every penny matters in an environment of such financial difficulty." **CM**

Dennis Doran Is New VP/PD



Dennis Doran, who helped shape a series of influential CMAA/FMI Owners Surveys when he was a senior consultant at FMI, has joined CMAA as vice president for Professional Development.

Former VP George Gehringer is remaining with the association as a consultant, with special emphasis on the CMIT program and international initiatives.

Doran was previously general manager of Maryland Utility Line Services, a utility industry construction services firm. He has participated in the construction industry as a contractor, consultant and trainer. After FMI, he helped launch and manage operations for Kenny Construction Company. He lives in MD and has two sons. **CM**

IBTTA Transportation Finance Summit

This year's International Bridge, Tunnel and Turnpike Association Transportation Finance Summit in December sought to provide clarity and direction for transportation professionals in a period of economic turmoil.

Former majority Leader of the US House of Representatives, Richard Gephardt set the tone for the conference, displaying both a serious concern for combating the financial crisis and an optimistic attitude about the country's ability to solve complex problems. Quoting Winston Churchill, Gephardt said "democracy is the worst form of government, except all the others." He spoke of the frustration he experienced working in the House, but said the system was generally effective not despite the input of everyone, but because of it.

At this year's summit, a panel of transportation experts was asked what they would tell President-elect Barack Obama if given five minutes to advise him on the state of the industry. "We need a DOT that is going to be a pragmatist," said Robert Atkinson, PhD, suggesting a need for timely, logical solutions to real transportation issues. In order for the stimulus to be as effective as possible, Atkinson advocated spending on existing projects that could be accelerated if funds were available, rather than spending on new projects which tend to be more time consuming. "He has to think through the financial structure long term," said Frank McArdle, senior advisor, General Contractors Association of New York. "It is easy to defer maintenance in hopes that it helps the current economic situation, but it doesn't work in the long run," he said.

In addition to discussing solutions to problems presently facing the industry, speakers forecasted future obstacles. "At least 55 urban areas will face severe traffic congestion by the year 2030," said Reason Foundation Director of Urban and Land Use Policy Samuel Staley, PhD. He went on to discuss the development of a more intricate, tolled web of roads that if implemented may help reduce traffic congestion in these areas.

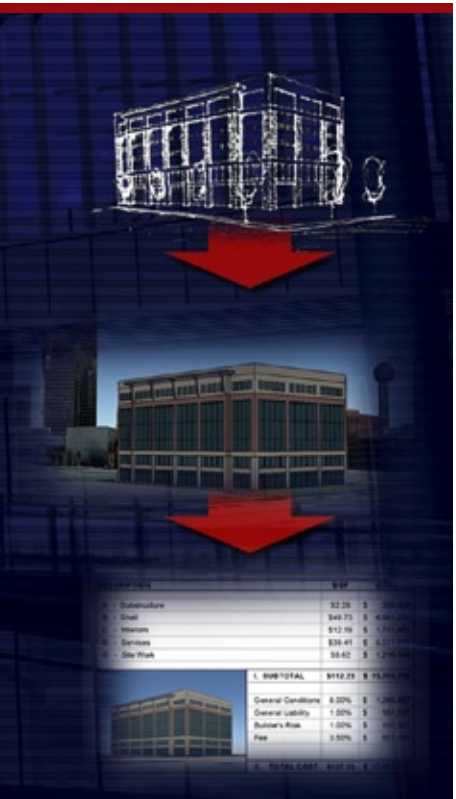
Attendees and speakers came together to face the challenge of funding, maintaining and operating surface transportation in a difficult world market by sharing perspectives, providing solutions for today, and ideas for the future. **CM**

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Professional Practice Corner

Commissioning “Lite”

Thomas Fakner, CCM, Harris & Associates

Commissioning appears to be traditionally classified as a *desired* rather than a *required* professional scope of services. A project’s deterrent to this service has been the perception of commissioning as cost prohibitive. However, we believe that a proper understanding of the commissioning process will demonstrate that the total project cost will be either cost neutral or marginally above the estimated project budget.

To achieve a proper understanding of the commissioning process, we would like to introduce “Commissioning Lite.” It is our position that a building system’s lifecycle project costs will be reduced commensurately with the incorporation of “Commissioning Lite.”

Utilization of this service will provide the following system advantages:

1. Introduction of Commissioning Agent (CxA) to the design early
2. Quality Assurance begins with the design phase and ends with the activation phase
3. Quality Control is with the contracted professionals
4. Enhanced functional performance
5. Minimal maintenance costs
6. Reduced warranty callbacks

We have recently delivered “Commissioning Lite” service to the Mercy Medical Center Replacement Hospital, a Catholic Healthcare West affiliate, at approximately one third the traditional commissioning services cost.

Bridging

Commissioning cost issues are relative to all projects. The question then is, will it be a required or merely a desired scope of service? The answer lies in the approach. The owner and design team must not equate this vital scope as a desired service, but rather build it into the basis of the design and integrate it into the construction process to attain the derived benefits.

An owner’s conscious decision to consider commissioning as a desired scope is purely a reactionary concession to the teams’ insistence that scope cutting to relieve cost issues associated with Traditional Commissioning services is the only alternative. At this point the owner willingly relinquishes scope and restructures its program and requires the designers to improve technical specifications and more specifically, performance criteria that will at its best improve the quality of system components. To comply,

design teams will be enthralled into a “value engineering” and “scope reducing” frenzy to reduce project costs enough so that by absorbing traditional commissioning costs they meet the project’s budget.

Commissioning

Traditional commissioning involves a CxA contracted through the owner well into the construction phase of the project. Immediately the CxA is plunged into commissioning specifications written by the Architect of Record and discipline-specific sub-consultants. They are digesting construction documents to develop a project specific pre-functional and functional performance testing program.

The objective of “Commissioning Lite” is to derive an integrated building systems commissioning model that will provide similar yet suitable results as a traditional commissioning service would, but at a streamlined, palatable budget expense.

The CxA is always behind on the information curve and will still be pressured to perform. This arrangement does not involve team coordination and cooperation. It is very laborious and expensive. As expected, commissioning is considered a desired service.

The objective of “Commissioning Lite” is to derive an integrated building systems commissioning model that will provide similar yet suitable results as a traditional commissioning service would, but at a streamlined, palatable budget expense. How can we redistribute commissioning scope and reduce costs without sacrificing the intent to provide a required service to all projects?

We have witnessed a commissioning disconnect between the design phase and the construction phase. We began to assess the intent of commissioning. It became obvious that responsibilities overlapped in many cases and some were duplicated among the commissioning agent, prime subcontractor and general contractor. Where and how do we separate responsibilities and maintain shared accountability? What are the defined roles?

Traditional thought maintains that design responsibility stays with the design team and construction responsibility stays with the contractor. But we espouse that in the vertical building process the CxA is a common thread, similar to the Inspector of Record, between the building system’s design and the construction that enforces the specification and compliance with the derived quality plan.

Historically the CxA has been added to the project team well into the construction phase. Commissioning specifications are drafted by the architect with input from the engineers. This approach merely provides system component commissioning. The contractors would have completed most if not all the rough-ins. This negates some of the value of hiring a CxA, as it would be too late to incorporate their design review input into the design. In a traditional commissioning approach, the CxA is often onsite conducting quality inspections and functional testing. Frequent aggregate testing is extensive and results in increased costs of the commissioning.

Start-up operations for all equipment would be witnessed by the CxA, including all systems tested that were documented. The challenge to this team was determining how “Commissioning Lite” scopes of service could be provided without losing the benefit of the commissioning process. Other questions were asked such as, what would be the relationship and roles played by each team member during the process?

We determined that commissioning experts need to be involved early in the project design phase especially when pre-construction services are scoped into the design process. This enables the CxA performing a third party review of the system’s design to offer input to the design team. This input can functionally enhance the system’s performance as well as help to improve the field installation process.

In addition, the CxA and prime-sub contractors would develop the commissioning specification and the pre-functional and functional quality program. We believe this approach empowers and solidifies their willingness to accept accountability and ownership.

The CxA brings a different viewpoint to the project. Their primary concern is to verify that the owner’s project requirements are incorporated into the project. This includes a focus on the owner’s operations staff’s concerns, such as maintainability and proper equipment access, and how the systems function in both near term and in the future. In addition, the CxA has a vested interest in making sure the control systems include all required information, and that they function according to the manufacturer’s specifications and design intent.

We believe that pre-construction service team members will benefit from the CxA’s early involvement. The mechanical, electrical, and plumbing contractors will display an enhanced awareness of specific equipment and the system’s pre-functional and functional components as they are engaged in the design phase with the engineers and CxA. This is believed to be a reminder to the contractors that controls need to be in place to ensure the system’s intelligence interface with the equipment thus resulting in greater efficiency, improved user confidence, and reduced maintenance down time.

Our challenge was to provide a seamless transition especially when the construction team would be different than the pre-construction services team. It was decided that a partnership

had to be forged. The bonding bridge between each team member would be through the derivation and implementation of the quality plan. The quality plan includes the following:

1. Early identification of the system’s equipment and controls incorporated into the “Basis of Design.”
2. Detailed intervals when the CxA would perform efficiency and constructability reviews relative to the “Basis of Design,” experiences, and project constraints.
3. Strategic milestones involving coordination between designer, prime sub contractor, and CxA take place to evaluate system locations, interference potentials, installation techniques, and fabrication.
4. Development and enhancement of field Quality Control and Quality Assurances check lists derived from the manufacturer’s pre-function and function requirements and the prime sub-contractor, designer, and CxA’s experiences.
5. Defined roles and responsibilities
 - a. Provides efficient commissioning services
 - b. Places ownership
 - c. Eliminates duplication of scopes of services
 - d. Eliminates wasted hours and inflated fees

The CxA, periodically, will evaluate performance through observation of quality check lists and select equipment pre-functional and functional test procedures performed by the prime sub-contractor. The CxA will observe all systems’ functional testing. The CxA is now an observer rather than a technician. This also prevents someone other than the prime sub-contractor from operating equipment prior to activation and acceptance.

I hope this narrative has provided insight to “Commissioning Lite” as an affordable benefit and not as an intrusive budget issue. This approach mitigates the owner’s risk by involving the design team in the commissioning process and linking accountability to the prime subcontractors. “Commissioning Lite” is an approach that reunites the past with the present, galvanizing our seamless commissioning theory.

“Commissioning Lite” is intended to serve as a template for providing commissioning services for future projects. **CM**

Tom J Fakner, CCM is senior project manager at Harris & Associates. He can be reached at tfakner@harris-assoc.com.

We welcome submissions for the Professional Practice Corner. Please send your ideas to John McKeon at jmckeon@cmaanet.org.

Member News

Construction Underway for CSU San Marcos Social and Behavioral Sciences Building



O'Connor Construction Management, Inc. has been selected by California State University San Marcos to provide CM services for its newest classroom/office building project. The \$40 million (\$29M construction) four-story facility will house lecture classrooms, computer, anthropology and GIS labs, a small rodent facility, and more than 100 offices.

Included in the 106,509 sf building will be programs for psychology, sociology, communication/mass media, economics, political science, anthropology, liberal studies, and human development. The state-of-the-art Social and Behavioral Sciences building will assist the growing campus with increasing enrollment demands that are expected to reach 8,000 by 2010.

The project is expected to be LEED silver certified.

Gerald Martin Named CM for Spaceport America



The New Mexico Spaceport Authority (NMSA) has announced the selection of Gerald Martin Construction Management of Albuquerque, New Mexico, to oversee the construction of Spaceport

America, the nation's first purpose-built commercial spaceport. Gerald Martin Construction Management will represent the NMSA in all aspects of design team and contractor integration, quality control, value engineering, scheduling and budget management. This announcement follows Monday's news that Spaceport America has received its Record of Decision and license for vertical and horizontal launch operations from the FAA/AST.

Gerald Martin Construction Management is a division of Gerald Martin General Contractor, headquartered in Albuquerque with offices in Santa Fe, Taos and Tempe, Arizona. For the spaceport project, Gerald Martin's team will include specialists experienced with aviation facilities, fire/EMS facilities servicing aeronautic and rocket facilities, and working with NASA. "We are proud to be a part of this historic endeavor," says James Mee, Gerald Martin's vice president/Construction Management.

"We are excited to work with Gerald Martin Construction Management on the construction and development of the spaceport," said NMSA Executive Director Steve Landeene. "There were many quality applicants in our selection process, and we feel confident that Gerald Martin has a level of experience, cost effectiveness and local knowledge that will give us the edge as we begin construction."

Peter Brown Construction Joins The PBSJ Corporation as a New Subsidiary Company

The PBSJ Corporation (PBSJ), parent company of the engineering, architecture, and sciences company PBS&J, PBS&J Constructors, and PBS&J International, announces the execution of an agreement for the acquisition of Clearwater, Florida-based Peter R. Brown Construction, Inc. They will operate as a wholly owned subsidiary of the corporation. Together the companies will provide a strong, totally integrated project delivery service to clients nationwide.

Hoar Program Management Lands Alabama Museum Project

The City of Mobile, Alabama has hired Birmingham's Hoar Program Management to guide construction of the maritime museum that is to be built on the downtown waterfront. The city will pay the firm just less than \$1 million, which city officials said was significantly less than the nearest competitor. Museum officials said they plan to break ground on the \$36 million museum in spring 2009, and the facility is slated to open in late 2010.

Jacobs Receives PM Contract from Peninsula Corridor Joint Powers Board

Jacobs Engineering Group Inc. has received a program management oversight services contract from the Peninsula Corridor Joint Powers Board (JPB) that continues its existing relationship and expands it to also serve SamTrans and the San Mateo County Transportation Authority (SMCTA) agencies.

Officials estimated the value of the 5-year contract at \$17.5 million.

Jacobs will provide capital program and project management oversight services that include program and project scheduling; schedule management and control; project budget management and control, including implementing earned value performance measurement on projects; project cash flow development and management; program and project scope development and control; document control and records management; and assisting with federal, state, and regional transportation grant and fund programming processes.

KBR Awarded Contract by World's Longest Marine Causeway

KBR has been awarded a contract by the Qatar-Bahrain Causeway Foundation (the "QBC Foundation") to provide design

management, project management, and construction management services for the Qatar-Bahrain road and rail marine crossing.

Qatar Bahrain Foundation is a bi-national institution created in 2006 by the Emir of Qatar and the King of Bahrain for the purpose of developing and managing the causeway project. Dr. Ahmed Hassan Al-Hammadi, Chairman of the Board of Directors for the Foundation stated, "The Foundation is pleased to have KBR, an international company of the highest reputation, working in partnership with us to manage this prestigious project. KBR's Management and Engineering team was selected after two competitive tendering events from among five international companies that expressed interest."

Former Indianapolis Mayor to Advise McKenna Long & Aldridge Global Infrastructure and P3 Practice

McKenna Long & Aldridge LLP (MLA) has announced that Stephen Goldsmith, former two term mayor of Indianapolis, is teaming with MLA's Global Infrastructure Finance and Public-Private Partnerships (PPP) practice as a senior strategic advisor and an independent consultant counseling on public-private partnerships and infrastructure related issues in the transportation, energy, health care and technology industries.

Goldsmith holds an international reputation as a leader in creative and innovative public-private partnership arrangements, and while mayor implemented government innovations for transforming the delivery of city services.

"Mayor Goldsmith's experience as a public official and a finance attorney, who successfully executed public-private partnerships, further enables our practice to provide our clients with financial, public policy and procurement insight to support future business opportunities," said Frank Rapoport, chair of MLA's PPP practice. He will be a tremendous asset to not only our team of lawyers and policy advisors, but the firm as a whole." *CM*

Want to share your firm's or organization's news with other CMAA members?

Send your member news and updates to Sarah Black, communications associate, at sblack@cmaanet.org. Please make your submission no longer than 200 words.



- > For jobs and professionals in:
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 - > Project Management
 - > Owner Representation
 - > QA/QC Administration
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ONE HIRE AT A TIME

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Professional Development & Certification

Board Welcomes First CMIT Participant

Walter Fedrowitz, CMIT of American Infrastructure is the first CMIT representative invited to participate in meetings of the Board of Directors. Walter's appointment is part of a Board-directed effort to solicit input from younger CM practitioners in discussing industry issues and formulating CMAA policies.

Fedrowitz also was the "star" of one of the first three career promotion videos created by the CMAA Foundation last fall. His video can be viewed on the CMAA website.

Walter attended the two-day Board meeting in McLean, Va. in December, at which CMAA's business plan for 2009 was discussed and approved.

"Taking part in the CMAA Board of Directors meeting allowed me to see the leadership that has caused this association to grow and develop over the last decade," He said. "My contribution as the CMIT representative is to help the Board of Directors bridge the gap between CMAA and the young professionals in the industry. As we go through these tough economic times, it is important as CMAA members to stay involved to help facilitate networking and career development." [CM](#)

CMAA Expands Menu of Online Certificates

To better serve CM professionals with flexible educational development opportunities, CMAA is expanding its library of online "Standards of Practice" Certificate courses. Four certificate modules are currently available, and another four will be published in March.

The courses allow CM professionals to master each module in a self-paced environment with the ease of a home or office setting. All courses are narrated by highly experienced CM veterans who share their expertise and insight with the learner, and all CMAA SOP Certificate modules provide CEU/LU/PDH credits. Additionally, CCMs receive one recertification point per course-hour.

Modules currently available on the CMAA website include:

- Quality Management (1 hr)
- Professional Practice – Role of the CM (1 hr)
- Contract Administration (2 hrs)
- Project Management (1 hr)

Modules to be available no later than March, 2009 are:

- Value Engineering (1 hr)
- Time Management (3 hrs)
- Time Management: CPM Lab (1 hr)
- Cost Management (4 hrs)
- Construction Safety Management (1 hr)

Standard rates are \$75 per course-hour (member) \$90 per course-hour (non-member).

CMAA also offers a bulk purchase discount for companies that want to offer the courses to their employees:

- 10-19 courses: 10% discount
- 20-39 courses: 15% discount
- 40-99 courses: 20% discount
- 100+ courses: 25% discount

Visit www.cmaanet.org for details and to register. [CM](#)

Congratulations, New CCMs!

Congratulations to these CM professionals who have earned their Certified Construction Manager distinction:

Nasser Atapoor

Fairfax County
Department of
Public Works,
Fairfax, VA

John Becvar

Knudson & Associates,
Houston, TX

Terry Brown

Kutztown University,
Kutztown, PA

John Clark

US Army Corps
of Engineers,
Langley AFB, VA

Roderick Charles

Hill International, Inc.,
Washington, DC

Brian Dittenhofer, PE

Hill International, Inc.,
Marlton, NJ

Scott F. Duckwitz

Walbridge

James Fratoni

Hill International, Inc.,
Washington, DC

Anthony David Greiner

Hazen and Sawyer, PC,
Charlotte, NC

J. Wade Griffis

San Diego County
Water Authority,
San Diego, CA

Robert Harrison

A. Morton Thomas &
Associates,
Baltimore, MD

Paul Mochel

Valley Construction
Management,
San Diego, CA

Michael John Mologne

Hill International, Inc.,
Washington, DC

Gregory J. Offner

DMJM H&N,
Arlington, VA

George Odorizzi

Department of
Veterans Affairs,
North Chicago, IL

Richard Partlow

JMT,
Sparks, MD

Dennis Keith Ring

George W. Auch
Company,
Pontiac, MI

Harrison William Staley

URS Corporation,
Chicago, IL

Samuel Tuzza

Gilbane Building
Company,
Lawrenceville, NJ

Vinay Uchil

PBS&J,
Atlanta, GA

F. Randall Wipke

Texas A&M
University System,
College Station, TX

President's Report

Pairing Stimulus and Accountability

Bruce D'Agostino, CAE, FCMAA

The words "stimulus" and "infrastructure" seem to be everywhere in Washington this winter. It seems clear, as this is written, that the new Obama Administration will need no further convincing concerning the importance of investing in our national infrastructure as a key element of a national economic recovery plan.

Professional CM has a major role to play in both the expected economic stimulus legislation (which may well have been enacted by the time this CM Advisor reaches you) and the ensuing surge in construction spending on all kinds of infrastructure.

In December, we took part in a planning meeting with Washington representatives of a half dozen member companies, along with other industry associations and companies. One result of this was a letter we wrote to Mortimer Downey, who was at the time coordinating the president-elect's transition strategy for the Department of Transportation. (Downey himself was under secretary of DOT in the Clinton Administration and has long been associated with CMAA member Parsons Brinckerhoff.)

In this letter we cautioned Downey that "considering the volume of construction spending being contemplated, and the speed with which all parties want this investment to proceed, there will inevitably be concerns about the control and accountability of these projects."

The letter continued: "It will also be vitally important that projects be executed efficiently, that appropriate new technologies be applied to speed construction and enhance quality, and that environmentally sustainable construction practices be maintained. The professional Construction Manager is in the best position to assure that all of these goals are realized and that America's taxpayers get maximum value from one of the most important investment efforts in our history."

Expanding our efforts, we also met with key senior staff of the Senate Environment and Public Works Committee to familiarize them with CMAA and update them on the expertise and other resources we could offer in shaping legislation.

We are continuing to seek out opportunities to make the profession's voice heard in this vital area. In all of our communications, we are stressing:

- There is more to infrastructure than highways and bridges. Although highways and bridges are a highly visible and vital part of our national fabric, we also need to spend important sums on airports, transit, water/wastewater facilities, power networks, schools and many other needs.
- The prevailing concern for speed in getting projects started and delivering the benefits of this spending means both the federal government and state DOTs must be more open than before to alternate delivery methods, including such innovations as Program Management and Public Private Partnerships. Only about half the states even allow P3's, but they can play a much more important role and professional CMs are vital in structuring and implementing these partnerships.
- This amount of money cannot be spent this quickly without giving careful, conscientious attention to accountability. The potential for inefficiency, waste and even fraud are very significant – and these risks simply accentuate the value to be gained from having a professional Construction or Program Manager acting as owner's agent and in the best interest of every project and program.



This amount of money cannot be spent this quickly without giving careful, conscientious attention to accountability.

In all likelihood, things will be happening fast during the first half of 2009, and all of this is simply a prologue to the *big* effort of the year, the re-authorization of the so-called "highway bill," the Safe, Affordable, Flexible and Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU).

CMAA has been told that rather than viewing the upcoming action as a "re-authorization," many congressional leaders are likely to take a true "clean slate" approach to this legislation. Since this bill will shape transportation investment for the next five years or more, CMAA will be following it closely and actively seeking opportunities for input. **CM**



Construction Management
Association of America

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Professional Development Calendar

“Ninth Standard” Leadership Webinar Series

January 29 – April 9

Online Webinar

“Client Relationship Strategies
for a Commodity World”

February 26

CMAA Slates Water Summit in July

“Changes and Challenges in Water and Wastewater Management”

CMAA will hold its first ever Water Summit on July 19 – 20 at the Venetian Hotel/Casino in Las Vegas, Nevada. This National CMAA event will be co-hosted by CMAA’s Las Vegas Chapter.

“This is an extraordinary opportunity for professionals in the field of water, wastewater, and water reclamation management to come together to share their vision and their best practices in an effort to manage the world’s most precious resource for generations to come,” said Summit Chair Richard “Skip” Parks, PE of Heery International.

Leaders of the industry will discuss topics ranging from “Total Stormwater Management” to “Financing Water Infrastructure.”

More than 200 industry professionals are expected to attend. Stay tuned for more information as it becomes available at www.cmaanet.org. [CM](#)