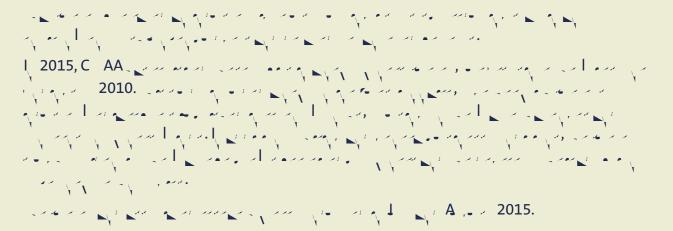


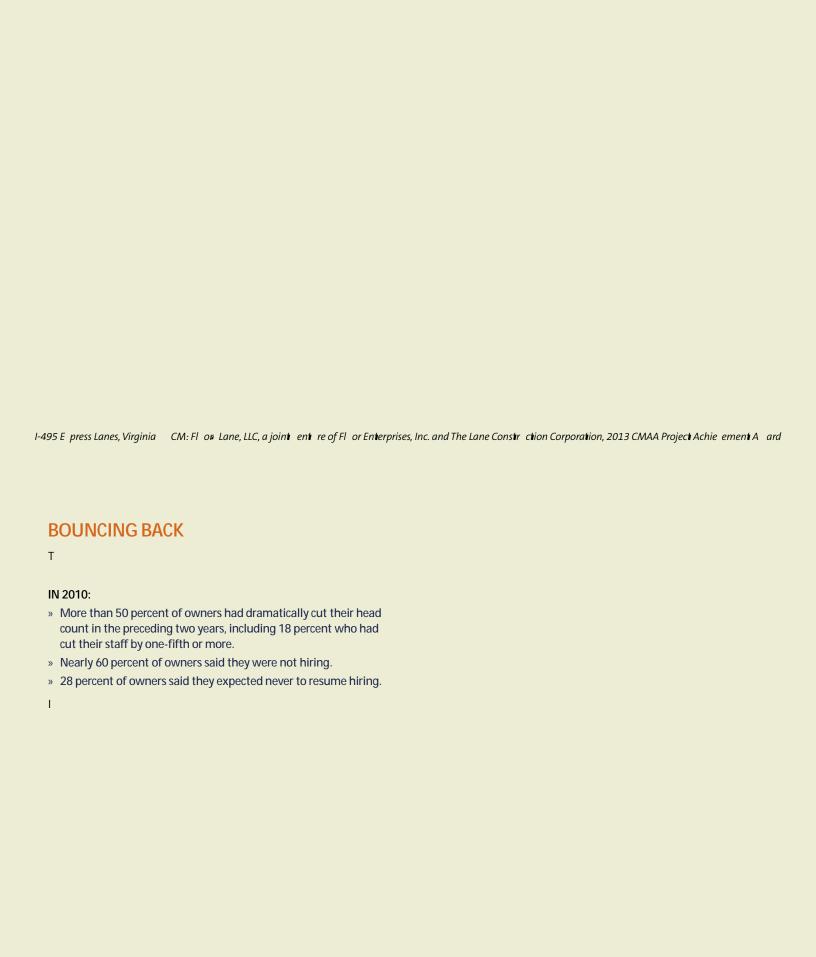


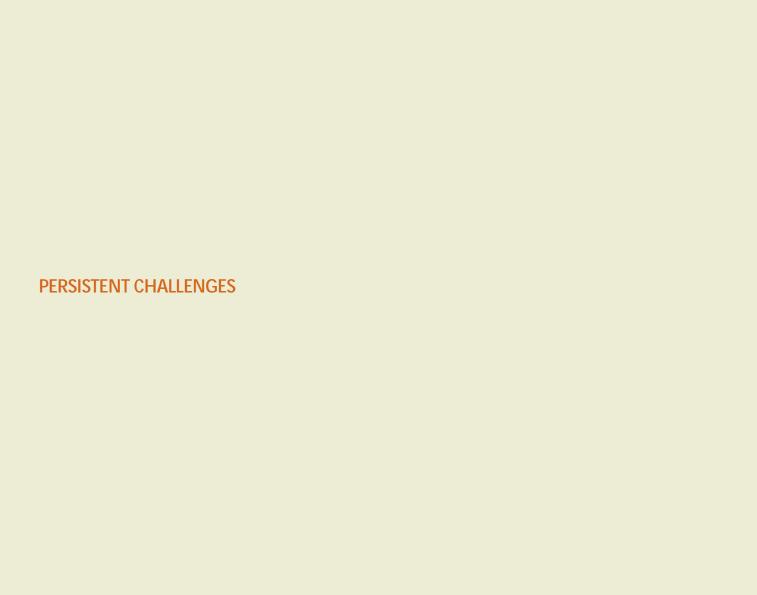


On the Co er: Salt Lake Cit s Net Zero Energ P blic Safet B ilding CM: MOCA, 2014 CMAA Project Achie ement A ard Abo e: Eskena i Health, Indianapolis, IN CM: Jacobs Project Management Co., 2014 CMAA Project Achie ement A ard

In 2010, CMAA published its Eleventh Annual Survey of Owners, providing a dramatic portrait of capital project and program owners severely impacted by the financial crisis of 2007-2008 and the ensuing Great Recession.







## **TECHNOLOGY PENETRATION**

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## OWNERS' VIEWS OF THE FUTURE

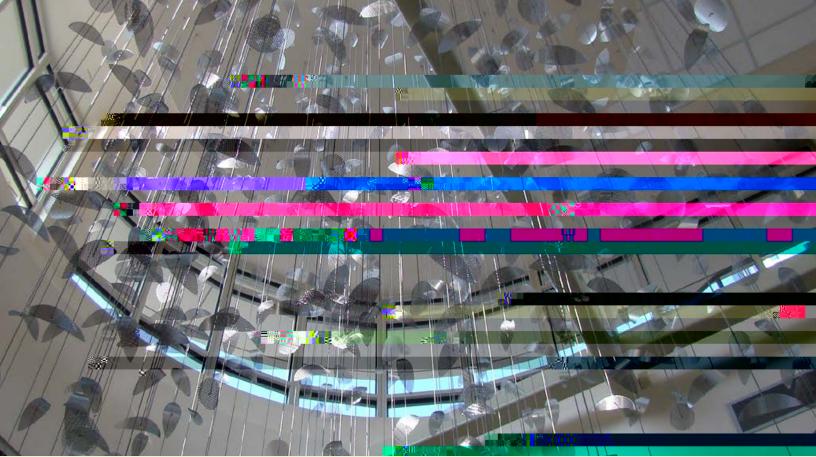
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- » Software will always be changing. However the biggest change that I see coming over the next five years, and it has already started to shift in a forward momentum in some select areas, is the change in the way project & construction management wants to conduct business (especially in public works contracts)... The old way of managing projects (via back door deals & political corruption) is slowly decreasing. New younger leaders that have higher moral standards on project management, and less appreciation for former military and political affiliation, are starting to emerge. New leaders for a new tomorrow is long overdue in the CM industry... CMAA is helping breed new leaders alongside the existing old boy network system. Over the next five years I hope the torch will be passed in a more transparent manner....
- » Availability of skilled, experienced people and the proliferation of processes limiting ability to be flexible project to project. Not saying processes are bad, but the more processes that are adapted, the more rigid becomes the framework within which you are required to operate. Any change becomes more challenging because you have to change the process before you use the change.
- » The use of alternate delivery methods. The potential for owners to require and pay for an intensive effort during the preconstruction services period in which the owner, contractor, designer and construction management consultant work very closely to eliminate errors, omissions, conflicts and duplications in contract documents so that a "no changes" (except for

differing site conditions, owner directed changes and major design errors [and detailing errors or dimensional errors would not be considered major]) contract can be executed with the civil contractor. Pay more up front and save money during

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Mo nt Nittan Medical Center Lance and Ellen Shaner Cancer Pa ilion, State College, PA CM: Ale ander B ilding Construction Co., 2013 CMAA Project Achie ement A ard

## "Tougher economic challenges will require innovation in managing an increase in disputes and claims. This trend showed significantly in the recent (last 5-7 years) economic downturn."

- » Labor: New construction techniques are changing the way construction is performed. In 5 years we will not depend so much on the skilled labor workers to complete a construction project.
- » Provide a greater emphasis on culture changes, better controls on budgets, schedules, getting contractors to share more risk in getting projects completed with minimal change orders. More CM leading best practices in the field.
- » Keeping up with codes and new systems. We need to try keeping things more simple. Looks like we keep making our lives more difficult with more complex systems and codes. When does it stop and reverse?
- » Going from the paper to all digital. It is rapidly changing now and in use on large projects, but I think you will see it on the majority of all construction projects.
- » Requiring contractors to be more creative on design-build proposals but at competitive prices.
- » Five years from now the thing that will have changed most will be the use of BIM to determine the need, function, constructibility of projects through total visual realization.

- » Lack of federal action on raising gas tax instead of budget gimmicks will cripple transportation infrastructure program.
- » Tougher economic challenges will require innovation in managing an increase in disputes and claims. This trend showed significantly in the recent (last five to seven years) economic downturn.
- » Unfortunately, if we keep trending as we have for the past 10 years, we will be more mobile but people will communicate even less. We currently spend a lot of money just to get our design team and CM to communicate in a separate "team setting." It's money well spent but I'm afraid that the lack of detail on the plans and in the specs will continue to fall due to the way the younger generation has learned as a "norm" and we will be swamped with even more RFIs. For some reason, we tend to communicate less even though each of us has a PC/phone on our hip.
- » BIM will be used on all projects, regardless of size. Public sector will see benefits of alternative delivery methods and will start using them.
- » Implementing BIM for the life of buildings and facilities and integrated software for project management and design/construction.



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