Editorial

Change! Are You Willing and Able?

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We are facing a sea of change, again, and it may be a rough ride. The new International Building Code has been adopted in all fifty states, and by this time next year it will regulate much of what is designed nationwide. The 2006 IBC is very different. Building Information Management, BIM, is everywhere, including in the requests for qualifications and proposals that we receive. It now looks like the clients expect the design team to build these data bases of project information, and use them as the basis for the construction documents for no additional fee. Sustainability is here and carries with it the need to be carbon neutral; another demand to understand and meet. Team contracts have appeared and carry the promise of cooperation and collaboration. They also require a higher level of responsibility and expect to put the team's earnings at-risk. Is there any hope that these changes can be ignored until they go away? Perhaps the need will be limited and others will cover the demand.

I don't think these changes will go away, and I don't think such a hope is in the best interest of the profession or the business. Change is good, especially when it improves the practice and improves the business climate. Change is hard, because it requires learning new procedures and adjustment to business practices. Change is expensive; it takes time away from projects, requires retooling, rethinking risk management strategies, and new capital outlays. Fortunately, if done properly and quickly, it will also provide new levels of efficiency and accuracy, open new lines of service, increase the notoriety and importance of the profession, and increase earnings. CASE is all about business practice and risk management, and we are moving as quickly as possible to help firms navigate new developments in the field. SEI and NCSEA are also doing their part.

The 2006 IBC represents the first fully coordinated design guideline for new buildings that is applicable nationwide. It appears to be complex, but that's because more is known about design today than ever before. It is the clearest statement of the "state of the practice" because the leaders of the profession wrote it in a consensus-based process. It is a valuable risk management tool because it takes much of the uncertainty out of what should be done, but not at the expense of creativity or alternate procedures. Learn the new ways, enhance safety, brag about using the latest techniques and negotiate fees that reflect the extra work and value being added. Don't sit still, fall behind, and become liable.

BIM is leading to full interoperability and is here to stay; just look at how design and construction is done in every other industry. The learning curve is steep, but the early adopters are in place and it's getting easier every day. It will increase design efficiency and the level of coordination within the design team. It will improve the transfer of information from the designer to the owner, the suppliers and the constructors. It will significantly reduce the number of RFI's, and cost overruns on projects. It will stimulate automation where it is most appropriate. Don't sit still, fall behind, and watch others do all the work for less design fees.

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The built environment is the greatest contributor of carbon to the environment. About a third occurs during the construct and deconstruct processes, two thirds is due to maintenance and operations. Structural engineers have a significant role to play that is just now becoming visible. Buildings that are designed to endure, to be adaptable to new uses, to resist deterioration, to resist natural hazards, and to resist attack will be reusable for generations. Every deconstruct-construct cycle saved reduces the carbon release. Every application of advanced techniques to minimize the use of materials is significant. It is much more than just using fly ash in the concrete mix design. Don't sit still, fall behind, and watch the ice melt. Do your part, and know that you have contributed significantly.

The ENR cover story "Sutter Health Unlocks the Door to A New Process – Team contract, with shared risk and reward, fosters 'all-for-one, one-for-all' spirit", from the November 26, 2007 issue – what a thought, actually, what a dream come true. Gone is the command-and-control mentality of traditional project management, adversarial relationships, RFI's, and costly claims. Contracts are between the owner and each design and construction professional. Included is language that sets a high level of responsibility, and comes with additional reward if earned or, if necessary, additional contribution. Don't sit still, fall behind, and refuse to participate. Rather, be an early adopter and help develop a process that will save everyone a lot of time, emotional energy, and money in the end.

The bottom line for these changes is good for many reasons. These kinds of changes cause increases in productivity, the fundamental driver of our economy. Change is invigorating. Old guys need to learn new methods, while young guys need to fit their new ideas in amongst tried and true practices. The conversation that results is stimulating and refreshing. Change is good for business and for the profession. Each of these major hurdles represents an opportunity to increase the value structural engineers bring to the table during design and construction, and each one makes our profession and our individual firms more attractive to the new engineers that are choosing their specialty.

Don't sit still, fall behind, and become and pain in the…. Jump in and navigate!▪