

Why not "Risk Management" Development?

By Brent White, P.E., S.E., SECB

Structural Engineering is a highly technical profession that requires years of effort from the engineer to become competent and proficient. The process to become technically proficient to practice structural engineering includes years of education, more time and effort (years) to gain enough experience to become a licensed engineer, and additional time and effort (years) to become a licensed structural engineer. Additionally, we all invest large amounts of time to keep current through continuing education. In many states, continuing education is a requirement. Regardless of whether the state requires it or not, it is a necessity for anyone practicing structural engineering to continue to develop and enhance their technical knowledge and skills. Professional competence in structural engineering practice is essential to secure the health, safety and welfare of the public.

Securing the health and welfare of our structural engineering practices and firms is also essential. Risk Management is an issue that we should all be concerned with, not just company principals and project managers. As structural engineers, do we expend the appropriate amount of time and effort to be proficient in Risk Management? Only we, as individual engineers and collectively as firms, can answer that question. Many firms and engineers do an admirable job in understanding risk and developing plans to mitigate it. Risk Management is a cultural issue that can and should permeate the entire firm practicing structural engineering.

What does it take to develop Risk Management skills? When prospective engineers are gaining an education, the technical aspects of the profession command the most attention. Most of us did not even think of things like effective verbal and written communication, contracts, company practice procedures manuals, managing project schedules, or consistency in firm deliverables, among the many other issues that face us as we interact with co-workers, clients, the public, etc. These issues are real, and are critical in managing the risk we face daily in the practice of structural engineering.

If we are serious about managing our risks, what should we do? Larger engineering firms may have policies, procedures, education programs, etc., to help employees manage risk. Many others may not even be thinking about these issues.

CASE has developed tools that will help engineers develop risk management skills. These tools can help practicing structural engineers and firms enhance risk management development. CASE currently has more than 20 tools in its Risk Management Toolkit that are available for anyone and any firm interested in developing risk management skills. Recently released tools include: *Developing a Culture of Quality*, *Staffing and Revenue Projection*, *Project Work Plan Template*, and *Managing the use of Computers and Software in the Structural Engineering Office*. CASE and SEI have jointly released a whitepaper titled, *Building Information Modeling for the Engineer of Record*.

Developing a Culture of Quality is a whitepaper and PowerPoint presentation that is intended to help firms have a meaningful discussion about the firm's culture. Company culture is hard to define, but it defines the firm and is a basis on which decisions are made, including practice decisions regarding risk management.

The *Staffing and Revenue Projection* tool is a spreadsheet that will facilitate managing a firm's staffing requirements. It utilizes company revenue projections and history to project immediate and near term staffing needs. Adequately staffing projects is crucial in properly accomplishing required engineering tasks and avoiding claims.

The *Project Work Plan Template* is an outline document that can be customized by individual firms to outline tasks,

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Our mission is to improve the practice of structural engineering by providing business practice resources, improving quality, and enhancing management practices to reduce the frequency and severity of claims.

Our vision is to be the leading provider of risk management and business practice education and information for use in the structural engineering practice.

assignments, contacts, and other key information for managing a project. The tool has two versions, a long and short form that allow adaption to specific projects and individual firms.

Managing the use of Computers and Software in the Structural Engineering Office is a white paper and template that helps a firm assess its computing and software usage and needs. The whitepaper provides suggestions for company discussion and evaluation of how computers and software are being used, how they should be used, and development of a computer and software use policy.

So...what about Risk Management development? Do we need to do more? I suggest we can all do more to avoid risk in our firms and engineering practice. The CASE tools mentioned here, as well as others previously released, help provide a basis for developing our own risk management programs.

A listing and description of all the CASE tools can be found on the CASE website, www.acec.org/case. For more information regarding specifics of CASE tools contact Stacy Bartoletti, Toolkit Committee Chair, sbartoletti@degenkolb.com. All tools are free of charge for CASE member firms. Tools are available to non-member firms for nominal fees. If you are interested in joining CASE, refer to the website or contact Heather Talbert, htalbert@acec.org.

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