

## Creating a Risk Sensitive Environment

By Edward W. Pence, Jr., P.E., S.E., F. ASCE

*This article is part of a series related to the CASE Foundations for Risk Management. It is based on Foundations #1-Culture, #2-Prevention and Pro-activity, #3-Planning, #4-Communications, and #5-Education.*

If you are in the business of providing professional services, then you are no stranger to the litigious environment which exists in our world today. Many man-hours are spent every year dealing with problems and issues that arise on almost every project. Very few of us have received formal training in the areas of risk management. Therefore, learning to effectively manage risks, and creating a risk sensitive environment in our practices, can have a positive impact on the bottom line! The following is an illustration; a recent situation that occurred in one of our offices.

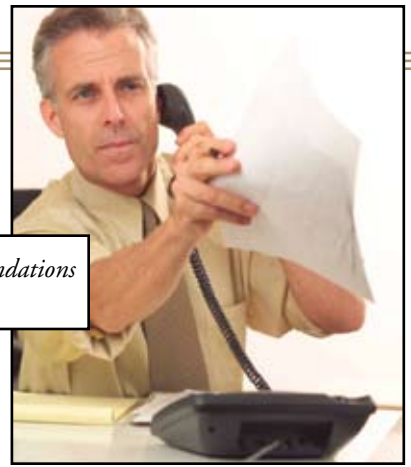
Our firm was the Structural Engineer of Record (SER) for a new middle school – a very typical project for us. The basic structural system for the two-story building included load bearing masonry walls, precast concrete hollow core plank floors, and a steel frame roof. In some locations, the rooms on the first floor were larger (approximately twice as large as the typical classroom), resulting in large steel transfer beams to support the floor, roof and wall.

The story begins with a seemingly routine phone call from the General Contractor. While walking the job with the Owner, they observed what appeared to be excessive deflection of one of the steel beams and wanted to know if there was anything they should do to protect the workers on the project. When asked how much it had deflected, he said they did not know but it was very noticeable. Shortly thereafter, both our Client and the Owner called and requested our immediate presence at the site.

The next morning there was a meeting to review the situation. The measured deflection was found to be very close to the calculated deflection, and everyone seemed to understand the explanation. The crisis appeared to be over. However, when leaving the site, it was observed that the bearing plate for the beam on the masonry wall looked a little small. A mental note was made to check it.

This project had been assigned to one of our relatively new engineers and supervised by an experienced project engineer. In reviewing the drawings and calculations, it was discovered that nearly all of the bearing plates were the same size, regardless of the size of the beam or the reaction. Investigating further, it was determined that the engineer had assumed that our *Typical Detail for Beams Bearing on Masonry* was applicable without actually considering the reaction, and the project engineer was so used to seeing the typical detail that he basically glazed over it during his review of the documents.

Our Client and the Owner were informed of the error – a very difficult thing to do. Both were assured that repair details would be developed and implemented immediately, and that we would bear the costs associated with the work that had to be done. While concerned about a possible delay to the project, the Owner was appreciative of the fact that we were forthright and did not try to hide the problem or push the blame onto others.



The repairs were made and the project was ultimately completed on schedule. Our Client and the Owner were satisfied with the end result. The Owner has gone so far as to recommend us to other Architects proposing on future work in his school district, because he was impressed with how the situation was handled.

This story could have had a very different outcome, with damages far exceeding the actual cost of construction, had sound risk management practices not been employed. Creating sensitivity to risk is not only important, it may be essential to a successful practice in today's complex environment. So, how is this done? Here are some fundamental concepts that have helped us greatly:

- Recognize that all are fallible. Errors, omissions, and communication breakdowns will occur. How you react when they occur is what is important.
- Educate your staff of the importance of practicing good risk management. This is especially important for younger staff. Be approachable, available, and supportive when a potential problem arises.
- In dealing with a potential problem, do not be defensive and do not assume that you are in the wrong. Questions of blame or liability should not be addressed and must be left for determination by legal advisers and insurance company representatives.
- Errors do not necessarily imply negligence, but failure to deal with errors could be regarded as negligence. The more open and matter-of-fact you are about rectifying errors, the less likely anyone is to try to penalize you for them.
- Do not delay! Immediately acknowledge any complaint and assure the complainant that the matter is being immediately investigated. Adopt a sympathetic attitude, assuming that the complaint is bona fide and the concern is justified. Show that you identify with the interests of the complainant. Do not be defensive or in any way show resentment that your work is being questioned.

### Case Foundations for Risk Management

- 1) **Culture:** create a culture of managing risk and preventing claims.
- 2) **Prevention and Proactivity:** act with preventative techniques, don't just react.
- 3) **Planning:** plan to be claims free.
- 4) **Communication:** communicate to match expectations with perceptions.
- 5) **Education:** educate all of the players.
- 6) **Scope:** develop and manage a clearly defined scope of services.
- 7) **Compensation:** prepare and negotiate fee that allow for quality and profit.
- 8) **Contracts:** negotiate clear and fair agreements.
- 9) **Contract Documents:** produce quality contract documents.
- 10) **Construction Phase:** provide services to complete the risk management process.

- Be aware of any factors that could threaten the success of a project. There are always early warning signs that signal that problems may be developing. Be sensitive to the early warning signs to potential problems.
- Situations evolve as the result of the coming together of a number of different risk features which fuse into a failure or claim scenario. If the risks are recognized when they appear, then there is a possibility of mitigating them by taking appropriate action.
- Establish and maintain open lines of communications. The best way to spot early warning signs and symptoms of problems is to have created relationships with the other parties to the project. The potential of problems occurring has an immense relationship to the amount and quality of contact between the SER, the Owner, and the Contractor.
- Avoid conflicts. A problem need not lead to a conflict, provided that all parties know that a problem will not be ignored. Concerns should be listened to and taken seriously, active steps taken to investigate and address them, and communication of developments must take place in a timely fashion and include everyone.
- Recognize that one of the earliest actions possible to avert claims is to commit to alternative dispute resolution as part of your written agreement. Commit, as a matter of principle, to explore alternative dispute resolution options such as mediation before resorting to litigation.

So what did we learn from our story? First, the problem you are called about might not be the real problem. Always keep your eyes open and pursue those things that just don't feel right. Trust your instincts. Second, typical details must be reviewed and edited to suit the specific project. Do not assume that they cover every situation. Mentally apply them to each condition and verify that they are correct everywhere that you intend for it to be used. Finally, do not hide from your mistakes. Own up to them, correct them, and move on. See the Action Tips table for a quick reference guide in managing risk situations and ideas for actions that should prove to be helpful based on our experiences.

In spite of the cost in both time and money, this is a success story. The benefit to our reputation far exceeded the loss, and this was possible only because of the risk sensitive environment we have created in our practice. ■

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Action Tips	
Situation	Action
Risk/Potential Problems	Evaluate, communication, mitigate.
Error	Notify, inform, investigate.
Difference	Communicate, investigate.
Compliant	Listen, respond.
Allegation	Respond fully, investigate, inform.
Claim/Potential Claim	Notify, cooperate, mediate.
Expectation	Communicate, clarify.
Threat	Notify, take action.



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