

Risk Management and Professional Liability Insurance for Structural Engineers



Basic practices to reduce risk and lower insurance costs

Risk Management

Structural and geotechnical engineering firms pay the highest professional liability insurance rates of all engineering disciplines. Professional liability insurance is likely to be among the highest operating expenses within a structural engineering firm. With a purposefully-designed approach to risk management, structural engineering firms can reduce their insurance expense, diminish the possibility of a claim, and also mitigate the impact that a claim may have if one occurs.

Below are key elements of a sound risk management program for structural engineering firms:



Client Evaluation



Project Evaluation



Professional Service Agreements



Client Communication/Coordination



Quality Controls



Insurance

1. Client Evaluation

According to a recently published claim study by Victor O Schinnerer (1), 68% of claims made against structural engineering firms come from their own clients. The most successful structural engineering firms conduct a standardized client selection process before taking on new projects. This is arguably the most important step in the risk management process. Your clients take much time and effort in evaluating your firm. Likewise, your firm should evaluate its potential clients. A fair-minded, financially sound client that works well with your firm is much less likely to sue you than an unreasonable and/or financially strapped and/or adversarial client. Clients don't generally sue the consultants that they work well with and like.

Evaluation of a prime design firm: When working as subconsultant to a prime that your firm has not worked with in the past, it is best to vet them applying similar standards as you would for any other type of client. Consider the following items before making a decision to move forward on a project. Ask if they have worked with the project owner in the past and describe the experience. Additionally, ask the following:



1. Does the prime have experience with this project type?
2. If possible, visit the project site with the prime and observe how they interact with you.
3. Is the prime willing to pay your firm's standard fees?
4. Is the prime looking to cut costs with "value engineering"?
5. Obtain the prime's certificate of insurance prior to signing a contract to ensure they have adequate limits of professional, general, auto, and workers compensation insurance.

Evaluation of a project owner: Working directly with the owner is generally preferable, as your direct communication with the owner reduces the possibility for miscommunication and unnecessary delays in the communication process. Questions to consider before agreeing to work with a new project owner include:

1. Is the owner financially secure?
2. Are they looking to build a sound structure or do they appear focused on cost cutting and value engineering?
3. Are they reasonable in their expectations and negotiating practices?
4. Are they willing to pay your standard fee?
5. Will they agree to use your standard professional services agreement?



2. Project Evaluation

Project evaluation is an important element of risk management for structural engineering firms. Residential projects including single family, townhouses, apartments and condos are more likely to result in a claim being made against the structural engineer than other types of projects. In fact, 41% of claims made against structural engineers from 2001 to 2009 were on residential projects (1). Condominiums and high-end custom homes are the highest risk project types for structural engineering firms. In addition, although temporary shoring projects do not have a high frequency of claims, they typically are severe when claims do arise. Conversely, office and retail are seen to have a favorable risk to reward ratio for structural engineering firms.

The type of projects in which your firm engages has a direct effect on the cost and availability of professional liability insurance. Insurance companies charge more for the higher risk projects and less for lower risk projects. They also have thresholds for certain project types that may make a firm ineligible for their insurance program. Special care should be taken when considering certain projects as they may affect your insurability and the price that you pay for your insurance. It is a good practice for structural engineering firms to seek advice from their professional liability insurance brokers regarding risk levels and insurance implications before engaging in new project types. This ensures that your decision is well informed and you are aware in advance of any potential adverse consequences.

3. Professional Service Agreements

The contract establishes each party’s rights and responsibilities. It should be fair and equitable to both parties. A contract can be a great risk management tool -- or quite the opposite – it is your opportunity to be proactive and greatly reduce your firms’ risk. Using your own well-written contract is preferable, but may not be feasible in all cases. An attorney who specializes in serving design firms should be consulted in establishing a standard contract for your firm, and in evaluating non-standard contracts under consideration by your firm. Industry standard contracts which are available through organizations such as EJCDC and CASE adapt well for structural engineering firms and generally are favored by professional liability insurance carriers. These can be purchased at www.ejcdc.org and www.acec.org. Sound Professional Service Agreements typically include the following standard provisions:

1. Parties to the agreement
2. Scope of Work
3. Standard of Care
4. Ownership of documents
5. Payment Terms
6. Dispute Resolution
7. Termination Provision
8. Signature and date



Below are examples of generally accepted industry language for two of the provisions listed above:

Standard of Care

Structural Engineer’s professional services shall be performed in a manner consistent with that degree of skill and care ordinarily exercised by practicing Structural Engineers performing similar services in the same locality, at the same site and under the same or similar circumstances and conditions. The Structural Engineer makes no other representations or warranties, whether expressed or implied, with respect to the services rendered here under.

Dispute Resolution

Prior to the initiation of any legal proceedings, the parties agree to submit all claims, disputes or controversies arising out of or in relation to the interpretation, application or enforcement of this Agreement to non-binding mediation. Mediation shall be conducted under the auspices of the American Arbitration Association or such other mediation service or mediator upon which the parties agree. The party seeking to initiate mediation shall do so by submitting a formal written request to the other party to this Agreement. This Article shall survive completion or termination of this Agreement, but under no circumstances shall either party call for mediation of any claim or dispute arising out of this Agreement after such period of time as would normally bar the initiation of legal proceedings to litigate such a claim or dispute under the applicable law.

In addition to the standard provisions, an attorney who specializes in serving AE firms may be able to help you include additional clauses to sharpen the terms and conditions of your contract such as:

Merit of Claim

Time to Bar Legal Action

Hold Harmless

Construction Review Disclaimer

Suspected Defects

Limitation of Liability

Following are examples for three of the above clauses above:

Time to bar legal action:

The Client and Engineer agree that claims from either party for breach of this agreement or for failure to perform in accordance with the Standard of Care shall not be initiated more than three (3) years from the date on which Engineer completes its services on the project.

Construction reviews:

Engineer offers to provide a review of the construction process. If the client elects to proceed with the construction without Engineer providing construction review services, then the client agrees to hold Engineer harmless against any and all claims which may arise out of the acts of the contractor performing work not in compliance with the design documents.

Suspected Defects

The Client shall promptly report to Engineer any defects or suspected defects in the Engineer's services of which the Client becomes aware, so that the Engineer may take measures to minimize the consequences of such a defect. The Client further agrees to impose a similar notification requirement on all contractors in its Client/Contractor contract and shall require all subcontracts at any level to contain a like requirement. Failure by the Client and the Client's contractors or subcontractors to notify the Engineer shall relieve the Engineer of the costs of remedying the defects above the sum such remedy would have cost had prompt notification been given when such defects were first discovered.

It is preferred to execute your firm's standard contract directly with the owner if they are agreeable. A fair and equitable contract will help to clearly define the project expectations and allow open channels of communication throughout the design and build process.

Client-written contracts are generally skewed in the clients' favor. Take time to review the provisions carefully and negotiate them as needed. If a claim or problem arises, the parties each will consult the contract as a first course of action to review how it may address the issue. Special attention should be given to the indemnity, insurance requirements, standard of care, and dispute resolution clauses to name a few. An AE attorney can be a great resource for reviewing your contracts. Most professional liability insurance carriers offer to their policy holders a risk management review of contracts. These services can differ widely by insurance companies and are not considered a "legal review". Your insurance broker should be able to help you in reviewing the insurance requirements section of your contract.

4. Client Communication/Coordination

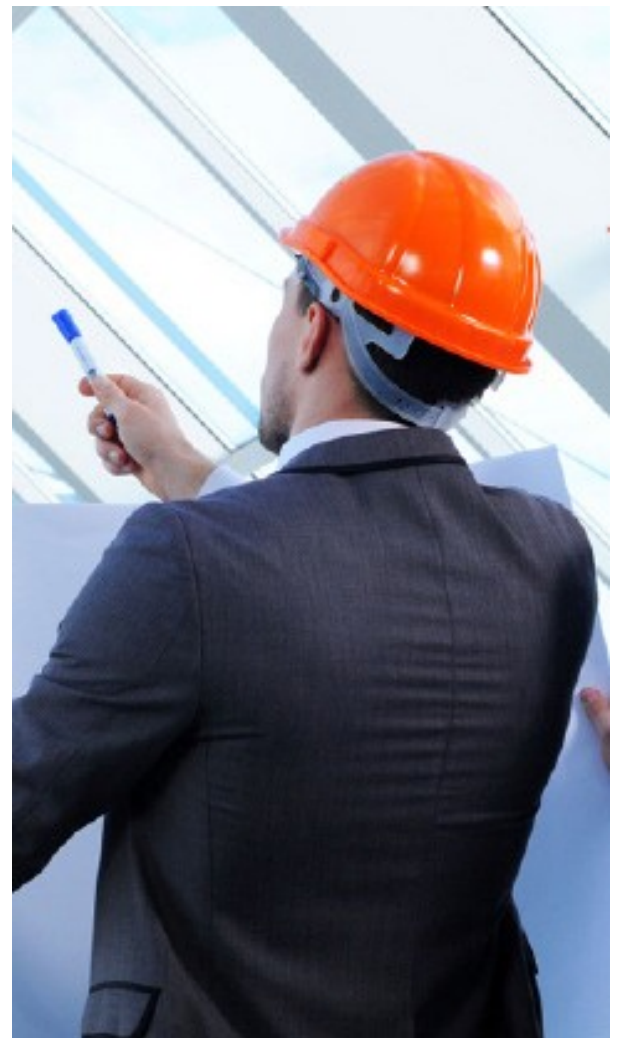
Client Communication is extremely important. Good communication has proven to drastically reduce the likelihood of a claim or problem on a project.

- 1** Find out your client's communication preferences. Some prefer an initial phone call with follow up in writing. Some prefer mainly electronic communication.
- 2** Confirm that your client has received your communication. A sent email is not necessarily seen, read, or even received.
- 3** Communicate verbally anything that could be construed as bad news before communicating it in writing.
- 4** Read your communication with a critical eye before you hit the send button. In addition, make sure the recipient is correct.
- 5** If your client is the owner and you are corresponding with the contractor, another consultant or any other member of the team, copy your client on communications sent to the team members. It will allow the owner (your client) to feel part of the team and identify any issues right away.

5. Quality Controls

The practice of structural engineering has undergone many changes and these changes continue coming more and more rapidly. BIM, complex and sometimes conflicting building codes, primarily electronic communication, fast track, and design/build projects are just some of these changes that require a sound and rigorous quality assurance program. Here are some elements of quality assurance for structural engineers:

1. In-house quality control during the design. A checklist is a great way to have consistency on this.
2. Quality control during the construction: Construction reviews are an important part of the building process. Not only does the consultant get to review his design for conformance to the plans, but he gets a second chance to look at the project for inadvertent omissions that can be revised before project completion.
3. Regular and ongoing training for young and also established engineers in order to stay up-to-date with the newest codes, techniques, and technology.
4. Contract protocols and wording. See contract section above.



6. Insurance



Many AE professional liability insurance carriers offer complimentary risk management services such as contract reviews, phone hotlines, white papers, risk management matrixes, webinars, and pre-claims assistance. Take advantage of these as they are generally at no additional cost to you. Your insurance broker can guide you through the services offered by various carriers.

As previously discussed, structural engineering firms (along with geotechnical firms) pay the highest insurance rates of all t engineering disciplines. They are insured by a select and ever-changing subset of the insurance carriers that write design firm professional liability insurance policies.

Professional Liability Insurance policies can differ widely. The limit, deductible, and price are just the tip of the iceberg with respect to your insurance program. Take some time to read your policy and review it thoroughly with your broker. Some insurance policies offer very broad insurance coverage and some are more limited in coverage. There are even several professional liability insurance policies for structural engineers that excluded... Structural Engineering! Some also exclude specific project types. Although there are currently 55 AE professional liability insurance carriers offering insurance in the United States, there are presently only 5 which are best suited to structural engineering firms.

In addition, an insurance broker that specializes in working with AE firms and that also works with many structural engineering firms will be best equipped to do a good job in procuring your insurance and advising your firm. Such a broker will understand what you do and can better communicate this to the underwriters to produce more robust coverage and/or lower rates. They also will know which insurance companies are the best fit for your firm.

This article is meant to serve as a primer to help structural engineering firms identify what type of things they should be thinking about to create and maintain a sound risk management and insurance program. It is by no means a comprehensive guide. Please let Hall & Company know if you would like to discuss risk management practices further, or if Hall & Company can be of any service to you.

*This article is being provided for use as risk management guidance and as such is not legal advice.
Consult an attorney prior to incorporating any contract language into your contracts.*

(1) Victor O. Schinnerer Structural Engineers claims study



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