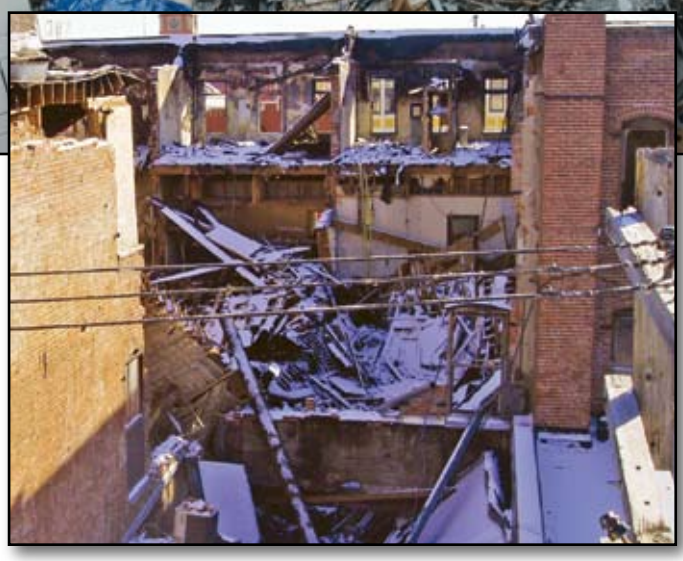
Consulting to Insurance Companies

By Peter Marxhausen, M.S., P.E. and David Lancaster

The overwhelming forces of Mother Nature and the occurrence of accidents are unavoidable. When fires, floods, earthquakes, tornados, hurricanes, structural collapses, leaking roofs, vehicle crashes, or any other structurally damaging event occurs, insurance companies are there to help businesses and homeowners set things right. Structural engineers are often called upon by insurance companies to help adjusters evaluate a loss. This can involve determining the cause of a failure, identifying and quantifying damage, designing repairs, or a combination of these tasks. Although working with insurance companies is a specialized niche unto itself, structural engineers without previous insurance consulting experience are inevitably asked to provide professional guidance and assistance when wide spread disasters or catastrophic events strike a region. When such disasters strike, insurance companies often rely upon local structural engineers.

Flooding in the Midwest caused the bridge failure shown. A structural engineer was involved in the salvage operation and reconstruction. Courtesy of Alissa Pfab.



Arson started a fire that eventually spread to a total of five historic buildings. The burn-out caused the floors and roof to collapse into the basement, leaving the outer masonry shells in an unstable condition. A structural engineer was hired to advise on the safety hazard to the public right-of way, evaluate the damage, develop a selective-demolition plan, and provide recommendations for reconstruction.

Who is the Client?

There are three misconceptions with respect to the evaluation of insurance claims. The first misconception is that the structural engineer is retained to minimize the insurance company's claim payment. Any attempt to overlook readily identified damage reasonably attributable to a loss will inevitably lead to supplemental claims at a later date, create ill will on behalf of the policyholder, and can potentially expose the insurance company to a bad faith lawsuit. The repair design for a structure should ensure that those components being designed are safe, reasonably conform to the building code adopted by the local building department, and provide an adequate scope of repair for the damage sustained in the loss.

The second misconception is that the insurance company has deep pockets and can afford an over-conservative repair design or addresses claimant-desired repairs unrelated to the loss event. Structural engineers who are inexperienced in investigating insurance claims may be lulled by the imprudent belief that the policyholder should be made happy irrespective of the cost to the insurer. This belief often results in unnecessary repair work, overly conservative repair design, waste of resources, unjustified upgrades, and/or payment for items not damaged in the loss or covered under the insurance policy. An overly conservative scope of repair will not lead to future retention by the insurance company; is not defensible upon review by the engineer's peers, clients, or adversaries; and, if recognized, could potentially leave the engineer responsible for the surplus construction costs.

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The roof structure of a convenience store collapsed under the weight of snow and ice. A structural engineer was hired to advise on the safe procedures for removing the interior contents, guide the selective demolition of the unstable portions of the building, and provide recommendations for reconstruction.

The third misconception is that an insurance company is engaging a structural engineer to act as their advocate and provide a failure analysis or cause of loss opinion supporting an exclusion or limitation in the insurance contract. The insurance adjuster requires a professional and defensible opinion that he/she can rely upon to evaluate potential coverage under the policy. Structural engineers are often retained for the investigation stage of an insurance claim when the cause of the failure cannot be determined without expert advice/assessment, a dispute already exists between the parties as to the cause of the loss, or there is a negligent third party responsible for the loss and the insurance company wants to protect their rights of recovery and subrogation. Whatever drives the necessity for involving a structural engineer, the engineer's duty is to render professional, supportable, and well reasoned opinions and findings. These opinions and findings must stand up to client and peer review, as well as an examination by the involved parties.

Both the insurance company and the insured are the client, in the sense that an engineer must be aware of both party's needs. However, in another sense, neither the insurance company nor the insured are the client since the engineer cannot be an advocate of either. A structural engineer should approach an insurance claim as an advocate only of their opinion and remain objective with respect to findings, analysis, and recommendations.

A boom crane was hoisting a heavy load when it became unstable and toppled onto an old historic building. A structural engineer was hired to evaluate the extent of the damage and provide recommendations for reconstruction.

Define the Scope

At the onset of the assignment, the engineer should obtain a clear and concise scope of work from the insurance adjuster. If the insurance adjuster does not provide a specific scope of work, the engineer should follow up until the adjuster qualifies why the engineer is being hired. Possibilities for being hired include investigating a cause of a structural failure, determination of the extent of the structural damage, development of subrogation information, preparation of a scope of repair, development of a repair design, drafting specifications, etc. Engineers who perform the wrong task waste time, money, resources, and potentially destroy evidence.

Insurance representatives generally need to know the following information, but may not have the time or presence of mind to ask for it:

- Is it damaged? And how badly is it damaged?
- How did the damage occur?
- What or who caused the damage?
- When did the damage occur?
- Was it previously damaged, unsafe, or not compliant with the building code?
- What repairs are necessary due to damage?
- What repairs are necessary due to previous damage and/or deficiencies?

Reporting to those who have not seen loss

In some instances the structural engineer is the only person who enters the attic, makes their way through a crawl space, or combs through a debris field at the site of

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A fire spread rapidly though the wood-framed roof of a massive milking facility. A structural engineer was hired to evaluate the extent of the damage, the extent of the heat damage to the concrete walls, and provide recommendations for reconstruction.

a failed building. At times, the insurance representative may be several states away and sees the loss only through the engineer's report and/or the report of a local insurance adjuster. For these reasons, the investigative structural engineer needs to set forth a written report with photographic documentation, detailed descriptions, and a background history so that those reading the report can easily understand the claim and the structural engineer's findings.

The investigative structural engineer's report should contain basic photographs from the outside, and overview photographs in addition to close-ups of any damage. The report should offer a narrative to provide the information necessary to help the insurance company manage the claim. Evidence should include photos, dates, times, names, interviews, witnesses, material facts, and field notes. A lack of documentation, an unclear description, or a seemingly unsupported conclusion can lead to delays and frustration for all involved parties.

Some claims do not resolve themselves and litigation occurs between the claimant and insurance company, or between the insurance company and the negligent party responsible for causing the loss. In that event, the investigating structural engineer may be involved with the claim through to deposition and trial testimony.

Code Upgrades

The building codes change slightly every three years. As a result, older structures that may have complied with an older version of the code do not comply with the building code currently adopted by the building department having jurisdiction. When structural damage occurs, it is generally required that all structurally deficient items discovered or included in the repair process be brought to the minimum standards of the current building code. Insurance policies vary; however, it is common that improvements made to a structure beyond the pre-loss condition are not covered or are only partially covered by the insurance policy. To avoid a financial burden on the insured, the structural engineer should not be over-conservative with the repair recommendations. Code upgrade issues commonly surface when the subject building is older, contains asbestos, exhibits decay, displays a lack of maintenance, and/or the building was constructed or added onto without engineering and/or a building permit.

Subrogation

When an insurance company pays for their insured's damages and legally seeks reimbursement from a third party that is at fault, it is called subrogation. An example of subrogation is homeowner's insurance paying the homeowner for damages caused by a third party vehicle impact and then seeking legal reimbursement from the vehicle's driver. Subrogation is a common occurrence and it may occur on personal injury claims, structural fires, structural damage due to negligence, and structural/property damage due to product liability.

Whenever an insurance claim potentially involves a third party at fault, the investigating structural engineer should be aware of the following:

- *Preserve, protect, and document related evidence.* A higher level of documentation should be maintained compared to what would be necessary in developing a repair plan only. Destruction of evidence on a claim could result in the insurance company losing their ability to subrogate, thereby costing them the entire claim amount.
- *Maintain a heightened awareness* that all repair recommendations will have an additional level of scrutiny when collection is sought from those at fault. If the repair is over-conservative or unjustly improves upon the existing construction, criticism and resistance can be expected.

A tornado caused the partial collapse of a new museum that was under construction. A structural engineer was hired to evaluate whether the structure could be salvaged.

A wide-spread fire caused significant damage to a single family home. A structural engineer was hired to evaluate the extent of the damage and provide recommendations for reconstruction.

An out-of-control vehicle struck a single family home, destroying the exterior wall and collapsing a portion of the roof. A structural engineer was hired to evaluate the extent of the damage and provide recommendations for reconstruction.

- *Determine whether the insurance company intends for the engineer to be a forensic expert witness* for the legal case made for the subrogation action. If the engineer is unwilling or unable to serve as the expert witness against those potentially at fault, it should be discussed upon receipt of the assignment.

Turn Around Time

Structural engineers typically work in an industry of fast track construction projects and in an environment where it seems that the project is always behind schedule. Insurance claims are similar, in that the claimant and their insurance company would prefer that the structure was retuned to the pre-loss condition as soon as possible. Severe damage may render the structure uninhabitable and result in temporary lodging expenses for a homeowner or loss of earnings for a business owner. It is best to agree and adhere to a date when the site visit will occur, when the verbal findings will be ready, and when the report and/or repair drawings will be complete.

Determining Coverage

A structural engineer who is evaluating a claim is highly cautioned not to guess at, comment on, or speculate with respect to insurance coverage, no matter how simple or routine the assignment. The best practice is to completely avoid commenting on coverage. Most adjusters are trained in understanding and interpreting insurance policies but have only minimal experience and or expertise with structural damage. The adjuster needs to know what was damaged, what caused the damage, and when it was damaged. With that information the insurance company can decide if the loss is covered under insurance policy.

Due to the increasing complexity of building codes and complicated repair issues, insurance adjusters are turning with more frequency to structural engineers to assist them in accurately adjusting claims. If damage is observed that cannot be conclusively determined to be related or unrelated to a loss, the engineer should advise of this and let the insurance company decide whether to pay for it or have it further investigated. Document what work is needed and identify why it is needed.

Once insurance coverage is determined, the adjuster will need to know what repairs are required to repair the structure. Delineation should be made by the structural engineer as to what specific construction improvements are being made beyond the original building configuration, if any.

Notice of Dangerous Conditions

Ignorance is often bliss to a property owner, which is why it seems some homeowners or tenants modify, abuse, or maintain structures in a manner that is detrimental to the building. Although claimants and insurance adjusters prefer to keep issues clearly defined in a claim adjustment, structural engineers have an obligation to identify to the proper authority conditions that they believe are unsafe or present life safety concerns.

The structural engineer does not have a duty to extensively examine and/or test all aspects of the structure being investigated, and should focus on the damage or issues involved in the loss. Nevertheless, during the course of their investigation should the engineer come across an aspect of the building that they recognize as unsafe, the engineer should notify the appropriate party or authority.

Summary

Being involved and serving as a consulting structural engineer in matters of insurance claims can be exciting and educational; however, risks, liabilities, and pitfalls exist. The best way to manage the risks and liabilities while avoiding pitfalls include the following:

- Uphold the American Society of Civil Engineers' ethics and State licensure laws.
- Remember that the investigating engineer's work, opinions, and findings should be impartial. Be an advocate of only your own opinions.
- Clearly define the client's questions, the purpose of being involved, and the extent of the services to be provided at the onset of your assignment.▪

A tornado caused the partial collapse of an historic mill. A structural engineer was hired to provide recommendations for reconstruction.

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