

I am pleased to introduce “Practice Management: A Practical Guide to Professional Liability for Design Professionals”. This is a tangible and, we believe, useful expression of our commitment to the engineers and architects we insure. ENCON Insurance Managers has always believed that a comprehensive program of loss prevention is an integral component of the insurance we provide to design professionals.

In addition to ENCON's and its insurers' 30 years of experience in loss prevention and claims management, this guide also benefits from extensive consultations with Canadian institutions and individuals, who made valuable contributions. Among the many who participated were: Anne-Marie Schneider, Association of Consulting Engineers of Canada; Dan Levert, Canadian Council of Professional Engineers; Steven Stieber, Stieber Berlach Gibbs, Toronto; John Singleton, Singleton Urquhart Scott, Vancouver; and, Bill Baird, W.F. Baird and Associates Coastal Engineers Ltd., Ottawa. Their efforts and those of many ENCON professionals have produced an accessible, informative guide that will be equally valuable both as a day-to-day reference and as the basis for a practical understanding of professional liability issues.

The content has been assembled and indexed for easy access. Under any given heading, enough information is provided to be immediately useful, with references directing the design professional to a more complete discussion. The binder format was chosen to allow individuals and firms to insert their own in-house examples, training materials and checklists wherever appropriate.

The format also means that “Practice Management” will be an open and dynamic document, growing and changing to serve design professionals. We welcome your comments and suggestions.

This guide has been written for every member of the firm. Therefore, some information that may seem basic to senior members may be important to design professionals just beginning their careers. In each case, however, the information in this guide is presented in the hope that it will meet the needs of the people ENCON exists to serve, the design professionals of Canada.

Jean Laurin, CA
President
ENCON Group Inc.

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A practical guide to professional liability for Canadian design professionals

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Communications



PRACTICE MANAGEMENT

A practical guide to professional liability for Canadian design professionals

Introduction

Communication appears at the beginning of this guide because it is vital to a design professional's risk management and loss prevention programs.

The objectives of communication during planning and project stages include 'reality checks' for clients at the beginning, maintaining good working relationships during the project, resolving conflicts and sometimes, laying the groundwork for defending a claim.

Communication is not a significant part in the training of most design professionals, but, like business management, it can be a critical variable in both career development and the growth of a successful business. Professional qualifications, hard-won experience and technical expertise may be wasted if poor communication alienates clients, disrupts a practice, or delays projects.

Poor communication can result in claims, but faulty records and inappropriate messages can make a bad situation worse, by making it impossible for an insurer to mount an effective defence, even against claims with little or no basis in fact.

Communication may well be "soft science", but the hard fact is that the design professional must communicate the right messages to the right people at the right time, clearly and effectively. Like any other skill, it can be learned. Like any other business process, it can be standardised and documented. And like any other practice procedure, every member of the design professional's team can do it right. This section will point to some areas design professionals should consider.

A professional communicates clearly and promptly.

A professional records and stores information so it remains accessible.

A professional recognises appropriate and inappropriate communication in any situation.

Internal, intra-office

Personnel briefed and current on insurance and liability issues

The actions of many design firm members can have an impact on the firm's professional liability exposure, either by causing claims or, unfortunately, invalidating coverage. Through this guide and other communications, ENCON Insurance Managers wants to reach the right people. Please distribute these materials as widely as possible and let us know what else we can do to inform and educate your people.

Procedures are important

In this section and elsewhere in "Practice Management", we recommend formal, easily understood systems for communication and record-keeping. To busy people, it may be important to emphasise the practical importance of these systems and ensure that their value is properly appreciated.

Communicate the contract

Once you have negotiated a complex contract, make sure all your employees and subcontractors understand the practical relevance of the terms in their daily work. There is no point in protecting yourself on paper if you leave yourself exposed in reality. When every member of the team knows what the client expects, the chances of a claim go down.

When a multidisciplinary firm designed a 32-storey office tower, the mechanical team changed the locations of air handling units without informing the electrical team. The electrical drawings were inaccurate and the owner's claim for \$32,500 was successful.

Communicate between departments

There must be formal channels of communication between departments in multi-disciplinary firms. People are both the assets and the image of the design firm. It is only fair to them and to the client, to make sure that everyone has the support and advice of other members of the team. Department heads should recognise their responsibility to constantly ask, "Will this change affect the design work of any other departments?"

Communicate with the client

In a recent dispute, it could have been the consultant's word against the contractor's. However, the consultant not only remembered giving the contractor specific information over the telephone, the conversation was recorded on a pink telephone slip. An examination of the consultant's files showed a consistent pattern of recording similar telephone conversations. The claim was settled in the consultant's favour.

Make sure you have a clear understanding of the owner's expectations. Many people, and too many owners, do not understand the roles and responsibilities of the design consultant on a typical construction project. Many owners believe consultants are responsible for total performance. They are not.

The owner must recognise that the design professional is an advisor; it is important to communicate the limits of your responsibilities so that the owner knows what roles you can and cannot perform. Lawyers and doctors do not guarantee performance; neither should design professionals.

The designer is the owner's professional consultant whose role it is to provide design services and to assist the owner in securing from the contractor a project that is in general conformity with the consultant's design and specifications.

Contractors, not consultants are responsible for total performance; in other words, building the project. Consultants do not manufacture or install the project components they specify nor can they guarantee them.

Design consultants should ideally be allowed to provide those field services that they judge necessary to determine that the contractor is building the project in general conformity with the design concept and specifications. When discussing this important point, the consultant should point out the potential dangers and consequences inherent in the reduction of the field service mandate to reduce project costs. Certifications should be qualified to accurately reflect the mandate. The consultant should also make sure that the client understands that field service staff cannot be expected to detect and seize upon every minor deficiency.

Field services determine general conformity with plans and specifications.

If owners choose to have their own supervision personnel in the field, rather than letting consultants perform field services, they should be made to understand that contracts must be adjusted to reflect such situations and relieve consultants of liability for the field service mandate.

Clients should know that the consultant can provide some form of project cost estimates for budgetary purposes but that, because of many factors beyond the control of either party, these estimates cannot be guaranteed. Clients should also be advised to establish contingency funds, to meet unforeseen additional costs.

The design professional should carefully review the feasibility study and if there are aspects that appear unrealistic or unattainable, make sure the owner understands the reasons why.

Estimates are just that, not guarantees.

Above all, do not 'protect' the client from the realities of life on a construction site. The more disputes and disagreements are ignored or swept aside at the beginning, the greater the possibility they will reappear in the form of problems and ultimately, claims, later on.

Formal channels at beginning of project

It is essential to establish formal channels of communication with the client at the inception of the project. They should be reliable, effective and measurable; senior management should make sure that the communications channels are being used for their intended purpose. Simplicity is important, because clumsy, time-consuming procedures may appear pointless to some personnel. This can be very dangerous if the system itself becomes a reasonable excuse for ignoring it.

Good communication means that the design consultant informs the client every time a risk situation arises. The professional consultant's role is to analyse the risk from a professional standpoint and let the owner assume or reject the risk. The client makes the decision.

Specific information your client should receive and understand

- Changes to the program and project design could mean the design professional will need extra time and increased fees.
- The professional standard of care is the measure of the consultant's performance, not some ideal of perfection.
- The only risks for which design professionals can fairly be expected to assume responsibility are those reasonably under their control; for example, do you control the construction site? If not, why should you be held responsible for safety?
- Design professionals' ability to keep to a schedule is not always under their control and the contract should acknowledge that.
- Construction documents rarely reflect every element of the design, and a reasonable number of questions from the contractor should be expected.
- Owners should be prepared for change orders that will be inevitable with even the most refined design. This should be discussed at the outset of the project.
- Design professionals have no control over or special knowledge of the costs of materials, labour, fuel and equipment, among other things and therefore can only be expected to produce approximate estimates of cost, not fixed and unchanging numbers.
- During construction, the design professional's role is to determine whether the work, when completed, will generally conform to the requirements of the contract documents. Design professionals who attempt to interfere with how the contractor fulfils its contractual obligations may encourage the contractor to assert claims for delays, extensions of time or additional costs.
- The design professional cannot be expected to 'guarantee' or 'ensure' the contractor's performance, and in fact such guarantees can void professional liability coverage.

Contractor

Establish roles and responsibilities

Just as the design professional must make a 'deal within a deal' with the owner about how they will work on a project, the same holds true for working with contractors. Establishing clear roles and responsibilities early in the relationship is the basis for clear and efficient communication during the construction phase.

Create team approach

The consultant should assume the responsibility for creating and maintaining a good relationship with the contractor. Very often, the owner and designer are well acquainted, and it is common for both to have reached an understanding before the contractor is in the picture. To avoid the contractor feeling like the 'other side' in a potential conflict, there should be a special effort to create a team approach, as opposed to an arena for adversaries.

Suppliers and manufacturers

To verify solutions, ensure conformity with installation requirements, resolve disputes

Where innovative materials are involved, either in the original design or through changes and substitutions, the design professional should take nothing for granted. Even when time is tight, the track record, installation requirements and peculiarities of new materials or techniques should be thoroughly investigated. And there should be a good paper trail documenting that investigation, including manufacturers' reports, test results and other material that would substantiate effective research. New materials are involved in a large percentage of claims, and good paperwork will allow the insurer to deflect a claim, negotiate a good settlement or mount a more effective defence in court.

Local authorities

The design professional may be required to gather information from local authorities. Good communication will facilitate efficient and fast work and it may be important to maintain good relations in the event of disputes that could delay or halt construction.

You cannot rely on glossy brochures alone. The consultant is responsible for verifying the suitability of a product. Manufacturers' claims do not constitute a defence.

Partnering

Partnering is a process that establishes procedures for resolving disputes at an early stage. It does not replace contracts. Instead, Partnering is a strategy for commitment and communication among the parties in a construction project.

The objective is an environment where teamwork and trust lay the foundation for solving problems. Partnering works because it is based on the principle that all parties benefit from the process.

The three parties in the construction process, owner, design professional and contractor, must agree with the concept. After the owner is convinced of its value, contractors should be advised during the bid process that Partnering will be used.

A design professional who wanted to specify a certain interlocking stone in a unique situation sent drawings off to the manufacturer. The design was approved by telephone and the drawings were returned. When the interlock failed, the manufacturer denied approving the design. The claim was settled for approximately \$1 million.

Typically, a Partnering workshop is the starting point, where participants establish communication, learn to work as a team and set goals. The team then develops a strategy for problem solving, so managers can address issues quickly and efficiently.

The benefits of Partnering have been shown to include:

- Lower exposure to claims through open communication and issue resolution strategies
- Lower risk of cost overruns
- Better quality of work
- Increased productivity
- Faster decision making
- Better chance for innovation
- Less exposure to liability for document deficiency
- Better chance for financial success

Other consultants

There has to be coordination between professional disciplines on a construction project. The impact of changes on other disciplines should be considered through a formal system before they are implemented.

Records

Much of the value of good communication is lost without documentation. Design professionals can face detailed questions many years after an event or incident took place. Without written records, disputes with contractors and owners may well be decided on some other basis than the facts as recalled by the design professional.

When a Statement of Claim arrived, the design professional could not remember the job. Even worse, not one piece of paper about the project had been retained. It is difficult to exaggerate the difficulties in defending this claim.

There should be a formal system of record-keeping on each project and the records should include, at a minimum, the following material:

- Literature from manufacturers of materials, especially new ones, and any correspondence with the manufacturer about those materials.
- Copies of all manufacturers' warranties.
- A résumé of every job site meeting and the key points that were discussed.
- A copy of every memo sent to other parties involved in construction.
- All documentation related to change orders and claims for extras.
- A résumé of all oral advice given to the owner and the contractor including notations of all telephone conversations.
- Accurate records of all advice given by the consultant to the contractor or owner or both, with written confirmation of their acceptance or rejection and the consultant's opinion of the inherent risk.
- A list of all deficiencies discovered by the consultant's field personnel and the steps taken to oversee their correction.
- A description of the circumstances surrounding all substitutions of materials approved by the consultant including any written warnings of possible problems or risks as a result of such substitutions.

- A copy of all correspondence sent to the owner, as notification of the consultant's inability to verify certain aspects of the construction which should have been seen but were covered up at the time of the visit.
- A description of all circumstances surrounding instances of lack of cooperation on the part of any other party.

Retain records

Records should be retained at least until the statute of limitations, which effectively means that the records should be kept indefinitely.

Written

The burden of remembering and completing written records can be eased somewhat by providing pre-printed forms, where possible with 'pick-lists' that allow consultants, as often as possible, to simply check off points or write in a few words.

Audio Tape/Cassettes

In some situations, it may be useful for a consultant to dictate site notes on to audio tape, rather than attempt to take notes on many areas of a construction site. Later, those recordings can be transcribed or stored, but they will only be useful if labelled correctly and if accompanying written notes provide a summary of the tape's contents.

Visual (video, digital still photos on hard drive or CD, date-stamped)

Videotape is another useful way of capturing detailed information in a short time, but today, digital cameras offer another convenient means of information-gathering and storage. Images can be stored on hard drives or systematically transferred to CD-ROM for permanent storage and instant retrieval.

Danger of overselling capabilities: in promotional material; in proposals; and to yourself

One of the pitfalls of promoting a firm's capabilities through printed material is that policy and personnel changes can mean some of the claims in the material simply aren't true at the time a project is underway. Lawyers fighting for a claim or settlement will seize on any and all information that will help to make their case, and documentary evidence that a firm promised something that it could not deliver can be very embarrassing during a trial.

Superlatives are "est" words. The customary legal obligation of the design professional is taken beyond a reasonable standard of performance. This overzealous language unnecessarily commits the design professional to results like the "thinnest" slab or the "longest" span, and should be avoided. Why raise the standard to which you will be held?

The engineers who designed a train tunnel agreed in their proposal to the client to provide their services in accordance with leading international standards. When some material subsequently corroded and failed, the plaintiff uncovered an obscure scientific paper that documented corrosion of similar materials under similar conditions. The claim was settled in the owner's favour.

Communication begins at feasibility study/first discussions stage

While the written contract may be the most important piece of information about a construction project, the process of deciding what will be in that contract begins well before it is finally drafted and signed. It is only human nature that assumptions and expectations about the project will be locked in early. That's why it is imperative to make sure the client and the consultant are talking the same language and seeing the same process. When it comes to contract language, it can be very difficult, if not impossible, to move the client off a position where they have been settled since the discussions began.

Dangers of inappropriate communication

Many if not most design professionals would describe themselves as 'take-charge, can-do' kind of people. By training and inclination, they consider their job to be overcoming obstacles, taking the lead and providing answers to difficult questions. These outstanding qualities have tempted more than one good design professional into making bad risk-management decisions. An example would be on-site, hands-on 'trouble-shooting' with contractors, giving specific advice and instructions about how to get something done.

The consultant's desire to 'do things right' may never be more dangerous than when a problem or crisis occurs. The desire to step in and fix things should never, ever overrule a correct assessment of the situation.

When some shoring he designed collapsed, the geotechnical engineer was on the scene within hours, taking responsibility for the mishap. Investigation revealed that the failure was caused by a ruptured water main nearby, but by that time the parties involved believed they knew the cause. It cost a great deal of time, money and effort to persuade everyone of the facts.

Do not assume responsibility

The 'good Samaritan' or 'good-guy' syndrome is well-documented. The contractor or owner will suddenly confront the design professional with a serious problem; through misplaced confidence or even a sense of guilt, the design professional will step forward, admit responsibility even where none exists and promise to set things right. Once in this trap, it can be difficult if not impossible to defend the claim.

Gather information

The correct response to a crisis begins with gathering information. This can buy time, cool heads and, often enough, pinpoint a simple misunderstanding or mistake that can be easily corrected. The key is to avoid reaching conclusions before gathering all the relevant information. Establishing the facts is never a waste of time, and it can prevent needless claims.

Build a team

By definition, a construction site problem is everybody's problem, and the sooner a solution is reached, even if it costs some time and money, the better for everybody. Easing tempers and promoting cooperation and mutual interest should be top of the agenda.

"You can draw conclusions from facts but you cannot draw conclusions from conclusions."

Prepare a plan

Once some breathing space has been established, the design professional should establish what needs to be done and call in as much help as required. There is no point in concealing a problem from management or tidying things up with a make-shift response if it only leads to further problems down the road. Firm management should make it abundantly clear that all problems are shared problems, to be dealt with right away.

Get back to work

With some good preparation, dispute resolution mechanisms and possibly some outside help, it should be possible to get the project back on track by solving the problem on a 'no-fault' basis and assigning responsibility away from the job site. That way, everyone can maintain business relationships and move forward with the project.

Gratuitous advice

An engineer was hastily briefed and sent to do some compaction testing on a highway project. While there, the contractor asked for some advice about a retaining wall to contain an adjacent slope. Without a mandate, fee or contract, the engineer provided the advice. When the wall failed, both the roadway and a house were damaged. The engineer was held liable.

Never describe field services as 'supervision' or 'management'. They are 'observations'.

Assuming responsibilities of contractor

On or off the job site, it can be very easy to provide a contractor with advice or information that in effect transfers responsibility from the contractor to the design professional. As noted above, under Dangers of inappropriate communication, it may go against the grain to know a solution and not be able to express it, but there are many situations on a job site that are not the consultant's business. When communicating with contractors anywhere and any time during a construction project, the design professional should always be conscious of exactly what can and cannot be said.

Assuming liability where there is no contract or payment

Some design professionals get into trouble by giving advice without being paid, without a contract and possibly, without even knowing that they are, in effect, giving their professional opinion. An extreme example is the consultant who sketches some details on a piece of paper at a neighbour's request, only to wind up in court some years later because the neighbour's foundations have cracked.

No fee does not mean no liability. When design consultants give professional opinions, they are fully exposed to liability, regardless of remuneration.

No fee does not mean no liability.

Design Practice



PRACTICE MANAGEMENT

A practical guide to professional liability for Canadian design professionals

How design professionals do their work can often be as important as the work they do. In this section, we look at how the design professional's procedures and practices can affect both their practice and their professional liability exposure.

Client selection

Design professionals can improve the odds of success by evaluating their potential clients with the same critical judgement they apply to other areas of their practices. While clients come in all shapes and sizes, there are some danger signals that can be objectively measured. Other warning signs are less obvious. There is a form for Client Evaluation at the [Checklist](#) tab. (The warnings in this section, and elsewhere under headings like Getting paid may seem obvious but many claims originate in these situations.)

Underfunded clients

Time and again, underfunded clients hit the financial wall and try to economise by stopping payments to the design professional. Plaintiffs begin lawsuits against design professionals in the hopes that payment will be suspended, possibly forever.

Claims are often driven by a lack of appropriate funding.

When the project is bigger than the owner's pockets are deep, the very best the design professional can hope for is partial payment. The worst is a series of expensive, time-consuming and pointless lawsuits.

Unsophisticated clients

Clients who don't know what they're doing can be as risky to design professionals as disreputable ones. They can combine thin finances with unrealistic expectations and be more prone to mismanage projects. The end result can be claims against the consultant.

Clients who vanish

Avoid dealing with developers who build at the lowest possible cost, sell out quickly and then disappear. This client sometimes gives a good indication of their intentions by securing minimal design services at the lowest possible price and refusing to pay for any form of field services during construction. At project completion, the same client will demand all certifications required by mortgage lenders and municipal governments. When these clients sell out and move on, the design professional is still liable to the subsequent purchasers of the property.

Importance of proposal stage

As mentioned in the [Communications](#) section, design professionals should understand that contract negotiations really begin with the first contact with the client. Not only will clients assume that design professionals have 'bought in' to their projects, they will base contract negotiations on what they believe was agreed in those early encounters. The task of educating the client is one many consultants take seriously, initiating the learning as early as possible, so the ideas that came up in a 'brain-storming' session on one day do not appear as inflexible contract conditions the next.

Project planning

*How important is project evaluation?
Many firms generate 100% of their
profits from fewer than 30% of their
projects.*

Information to be provided by owner to consultant

Standard contract forms usually call for the owner to provide 'full information', defined to include a program, schedule, budget and survey, geotechnical or other necessary information. The accuracy of that information should be at the owner's risk. In those same standard forms, the design professional has a corresponding duty to respond to that initial information and let the owner know of any potential conflicts in the information or

the need for additional information or consultant services.

Professional's evaluation of project

Design professionals undertake to carry out their responsibilities with a reasonable degree of care and professional ability. The client is buying both skill and judgement. Therefore, the consultant should never take on projects where the possibility of success is in doubt from the beginning.

The consultant should be certain that the project is within the firm's technical expertise and competence, and only promote expertise in those disciplines in which staff members have both theoretical knowledge and practical experience.

Project summary report

Some design professionals summarise all the relevant project documentation in a Project Summary Report, and use it to document planning assumptions and decisions, facilitate communications and provide a baseline for project control.

The report could include:

- Project program
- Owner's schedule
- Design professional's project milestone schedule/status
- Owner's budget of costs
- Design professional's preliminary estimate of cost
- Alternative solutions to be evaluated/status
- Owner-furnished site data and information/status
- Codes and regulations applicable to the project
- Permit requirements of the project

Consultants

When 'staffing up' the project, the design professional should consider the availability of appropriate consultants.

When consultants are being considered for a project, the prime consultant should consider, as well as their experience and availability, their ability to cover their own expenses and payrolls during the project. A troubled consultant can threaten the work of the entire project's design team.

*An engineering firm got a high-profile
job on the strength of its qualified
personnel. However, most were
reassigned when the project got
underway. A newly-hired, inexperienced
engineer assigned to the site wrote a
memo which said, in part, "... I don't
know what I am doing ... I need
help..." When the owner brought a
claim, the plaintiff tossed the memo on
the table. The claim was settled for
more than \$1 million.*

Interprofessional agreements

The agreements between the prime design professional and each of the subconsultants should describe in detail the separate duties and responsibilities of each. 'Grey areas' must be eliminated, in writing, so there is no overlapping of responsibilities and no gaps in responsibility.

*When everybody is in charge,
nobody is in charge.*

Because almost all design and construction projects involve multiple contracts, those contracts should be similarly structured to avoid conflicts and ambiguities.

The following points of coordination deserve attention:

- quality program requirements and responsibilities
- design criteria and standards, drawing or CADD file format
- schedule requirements
- budget requirements and any construction cost limitations
- terms and timing of payment
- use and ownership of documents
- terms and provisions for termination
- dispute resolution provisions
- insurance requirements, including certificates of insurance
- limitation of liability provisions

Opinions of probable cost

Owners naturally want to know how much a project is going to cost them. Unfortunately, this is not a figure that can be provided with any great accuracy until fairly late in the design process. For that reason, and because specific numbers can expose the design professional to a claim if their estimates are wrong, the consultant should only commit to an opinion of probable cost. In the paperwork that goes to the client, the consultant should make clear the variables that could change the figures, including limitations of the information available and lack of approval of authorities having jurisdiction. The consultant could offer to retain a professional cost consultant and most importantly, state that the numbers provided are an opinion of probable cost and not an estimate.

DISCLAIMER OF RESPONSIBILITY TO THIRD PARTIES

This report was prepared by _____
for the account of _____.

The material in it reflects _____
best judgement in light of the information available to it at the time of preparation. Any use
which a third party makes of this report, or any reliance on or decisions to be made based on it,
are the responsibility of such third parties. _____

accepts no responsibility for damages, if any, suffered by any third party as a result of decisions
made or actions based on this report.

Clients who will not agree to a clause like the *Disclaimer of responsibility to third parties* should agree to provide the design professional with the names of any third parties who receive their reports. This allows the design professional to contact the third parties directly in order to establish a mandate or issue a disclaimer.

Ownership of plans and specifications

Design professionals are not retained to produce documents such as plans and specifications; they are retained to perform services that are expressed through such plans and specifications. This is an important distinction and one that often confuses both design professionals and their clients. Clients must not be allowed to believe they may be used in other circumstances without proper design consultation.

Under standard contracts, the design, the copyright of the documents, and the right to use the information contained in these instruments of service are all retained by the design professional.

The client is given a right to retain copies for information and reference in connection with the use and the occupancy of the project, but it is clearly stated that the documents are not intended to be suitable for reuse by the client or others for modifications to the project or on any other project.

It is prudent for design professionals to clearly define ownership of the copyright and what will be considered to be appropriate use of plans, specifications, and other documents in the professional service agreement and to transfer only those rights that are clearly identified in exchange for appropriate compensation and legal protection.

Getting paid

Unfortunately, in today's world, asking for payment can result in a claim for damages against the design professional. When clients run short of money they will look for any reason to file a claim against the design professional and stop payments. It is a fact of life that there are plenty of excuses to file a claim on most construction sites.

There are a number of things that consultants can do to lessen the chances of this happening. Unfortunately, none of them are completely satisfactory.

First, if it seems appropriate, the consultant might attempt to receive a retainer from the client. Invoices should go in regularly during the project and collection should be steady and determined. During the course of the job, the consultant should try to get statements of satisfaction from the client. If nothing else, these will look good in court.

The consultant should make sure the agreement states that the client cannot withhold payment of fees without an independent determination of fault by the design professional.

Finally, at the conclusion of the project, the design professional should get the final invoice in quickly. It may also be useful to offer a discount for prompt payment of the last invoice.

Project Work Plan/Work Breakdown Structure

The Project Work Plan is designed to define the design professional's scope of services at the task level, to assign, schedule and budget each task and integrate individuals into an effective design team.

The Work Breakdown Structure is a hierarchical representation of the design professional's entire scope of services broken down into successive levels of detail where each level results in defined deliverables.

Bidding or Negotiation Phase

Every activity the design professional normally undertakes during the bidding phase of a project involves risk. Those tasks include assisting the owner in obtaining bids or negotiating proposals for construction work, recording information on prospective bidders, administering the distribution of bid documents and attending or running pre-bid conferences.

*Can the lowest bidder perform?
If not, say no.*

The design professional should make sure a clause in the Instructions to Bidders allows the owner to accept or reject any bid, regardless of the bid amount. There are good reasons for preserving this option. The difference between two bids may weigh less than other considerations in the owner's mind, such as the ability of the contractor to carry out the work on time and within budget.

The design consultant should ensure that all selection criteria are set out in the tender documents and that information provided to one tenderer is made available to all of them. As well, the consultant should provide for separate pricing of alternate materials or products.

During this phase, the design professional may have to prepare and issue addenda. Once the bids or proposals are received, the design professional may assist the owner in tabulating the bids or evaluating the proposals. The professional might also investigate and advise the owner on the acceptability of proposed subcontractors and suppliers. Finally, the design professional is often asked to help the owner and the owner's legal counsel to prepare and award the contracts for construction. Where legal issues arise as to the acceptability of a bid, advise owners to consult their own legal counsel.

Keeping up appearances

During the bidding or negotiation phase, the design professional should be sure to provide objective and well-documented advice to the owner, to avoid the appearance of favouring one contractor over another. In the same manner, the design professional should try to demonstrate to the contractor that the owner will not be unfairly favoured during the project.

Post-project

Sometimes an owner will request a rating of the contractor's performance after a project is completed. If the owner bases a subsequent decision on false or negligently supplied information in that report, the owner could take action against the design professional.

Design review

Check. Check again.

A thorough review of documents and drawings before they leave the office is a good way to prevent errors and claims, especially when they are being produced under pressure. In the case of both specifications and drawings, an experienced team member should try to assume the role of a contractor or subcontractor and make sure the material is comprehensible. If it is not, the best case is that contractors will ask a lot of questions. In the worst case, they won't.

Submittals

Deal promptly with requests to review shop drawings and other submittals.

Submittals can include product data and samples, but the focus of this section will be on the most common submittal, shop drawings. In general, however, the comments below will apply to most submittals.

Contractor's responsibility

No matter what happens during the review process, the contractor is still obliged to comply with the contract documents. It is very important that the contractor review and stamp drawings produced by subcontractors before they are sent to the design professional. There is no overlap in the responsibilities between the design professional and the contractor.

If the consultant reviews drawings that lack the contractor's approval, it may later appear that the consultant's approval related to all aspects of the shop drawings, including those for which the contractor was responsible. The contractor and the contractor alone is responsible for the completeness and accuracy of drawings.

Design professional's responsibility

The design professional reviews shop drawings to compare the information they contain with the information and design concept expressed in the contract documents. The design professional should not review information that is not required to verify compliance with the information in the contract documents, but at the same time advise the contractor and the owner that no responsibility is assumed for the accuracy of the information. The consultant should ensure that the contract defines the nature of responsibility for shop drawing review.

Design professionals can usually request the shop drawings they want to review, and there is no predetermined list that design professionals are required to review for each type of project. There is usually no obligation to review submittals that have not been requested.

When the drawings deviate from the requirements of the contract documents, they should be returned to the contractor to be corrected. When the reviewer spots an apparent error in a drawing that is beyond the scope of the review, it should be pointed out to the contractor, without any attempt to correct the information.

Handling drawings creates responsibilities

It is reasonable that design professionals only request those shop drawings that, in their professional opinion, are needed since any affirmative action taken in response to a shop drawing submittal is likely to be construed as "approval" in the eyes of the law. If a firm has not asked for a shop drawing, but one is provided, and the firm takes the opportunity to examine it and returns the submittal to the contractor with no objections noted, it is likely that the firm will be held to have approved the shop drawing.

Never "approve" a shop drawing.

Stamps

Reviewed only as to general conformity with the following project requirements: (state project requirements). The design professional does not warrant or represent that the information on the shop drawing is either accurate or complete. Sole responsibility for correct design, details and dimensions shall remain with the party submitting the drawing.

Prime consultant's firm name

By: _____ Date: _____

Shop drawing stamp disclaimers are not magic words. The wording should express the concept that it is the contractor's responsibility to provide shop drawings and other submittals called for so that the design professional has the opportunity to determine if the contractor understands the contract documents. It is not the purpose of shop drawing review to assure that the contractor is meeting the requirements of the contract documents.

Record or "as-built" drawings

Sample language for record drawings stamp

The information contained on this drawing, other than changes made by (name of firm) originated from sources other than the design professional and (name of firm) does not warrant or represent that such information is accurate or represents the original design as contained in the contract documents.

Many owners want a set of updated drawings or plans and specifications after work is completed, reflecting the changes actually made during the course of construction as compared to the original contract documents. The design professional needs to know: how the changes were recorded; who recorded the changes; what the changes really show.

Many details are left up to the contractor, provided the end result is the one the contract documents call for and clearly the contractor is in the best position to record those changes.

- The contractor provides as-built drawings and the design consultant provides record drawings
- Design consultants cannot produce record drawings unless they have carried out periodic field reviews.

When a condominium project reached the seventh floor, a new consultant reviewed some record drawings and wrote a comment to the effect that the work had been performed as designed. When a claim for \$50 million was brought forward, the insurer decided within hours to offer the limit of the design professional's coverage to settle.

"As-built" creates the impression that the drawings show all changes. They often don't. (The construction industry is working to replace the term "as-built drawings" with "record drawings.")

Formal procedures

The design professional must have a practical, organised and well-enforced system of document and drawing management. Submittals should come from the contractor on a scheduled basis, so the design professional can anticipate the workload and assign the appropriate personnel to the task. The system should identify and reject drawings that are not called for or have not been reviewed by the subcontractor.

Working without a field mandate, a fact not referenced in the contract, an engineer designed a unique septic system for a residential project. The contractor ignored instructions not to level mounds or operate heavy equipment in the area. The system failed on Christmas morning and effluent covered several basement floors. The court decided that, in the absence of contract language to the contrary, there was a field service mandate. The engineer was liable.

Field services

To quote Claude Mercier, the former president of ENCON, "If the consultant has not been remunerated to provide complete field services, then how can he be expected to sign a document attesting to something he has not verified and thereby assume full responsibility for possible defects? It makes no sense."

The issue of certification should be one of the first agenda items in the early stages of negotiation with the owner. If the client's demands for reduced fees result in reduced field services, the client must be warned that all certificates will be qualified to reflect the fact that reduced field services were rendered.

Certification form

This certificate is based solely upon information provided by (insert source of project information, whether contractor, other professionals engaged by the client, etc.), as the certifier has not had reasonable opportunity to observe the subject matter hereof. Therefore, (insert certifying firm's name) neither warrants nor represents the accuracy or completeness of the information contained herein with respect to (insert as appropriate the subject matter of the certification – i.e., costs of the work, substantial performance; contractor's payments applications; quality of workmanship; percentage of work completed; conformity of work to project documents, etc.).

(certifying firm name)

By: _____

Date: _____

As well, the Certificate of Substantial Completion, which is usually accompanied by a list of deficiencies, should clearly state that the list is based on the extent to which field services were rendered. If the consultant only made occasional visits, the Certificate of Substantial Performance should state that fact.

"Inspection" and "observations or evaluations"

During a typical construction project, the consultant will normally do both 'inspections' and 'observations', but there is an important difference between the two activities and when they are carried out.

Typically, there are two inspections; one at the time of substantial completion of the work and one at the time for final payment.

The difference between the observations or evaluations and inspections is principally one of intensity or level of effort. If the design professional has taken on the responsibilities of an inspection, then an inspection should be performed, not just a normal observation of the work.

Where the Building Code requires field reviews, partial field services are inadequate. In such situations, someone must provide field services in compliance with the Building Code.

There is no reason to avoid the word 'inspection' in a contract, as long as all parties understand the differences between the two services, define them and specify scope, purpose and payment for each in the agreement.

Timing

Many owners want 'periodic' visits to the site written into the contract, but some time ago courts decided that meant a regular and uniform schedule of visits, no matter what was happening at the job site. Most agreements now call for site visits at the design professional's discretion.

When owners ask for a full or part-time representative at the site, it should be clear to all parties that the representative authority and responsibility shall only be that as defined under the agreement with the owner.

Assuming contractor's responsibility

As noted in several parts of this guide, no matter how carefully the contract documents assign responsibilities between the parties, the design professional can take action on the job site that makes those contract terms meaningless. Giving advice to the contractor about the means, methods, techniques, sequences or procedures of construction can lead to assuming liability that properly belongs to the contractor, which is not insurable.

If you do not control the process or the means of construction, don't shoulder the responsibility. "Don't wear the hat if you're not paid to wear it."

Safety issues

Safety is the contractor's responsibility. Because the contractor is in charge of the construction site, that is a fair and reasonable allocation of risk. Design professionals, however, can assume some of the contractor's responsibility for safety if they specify safety requirements or take specific actions in the field with respect to safety programs and procedures. This can happen if there is a contractual commitment to review the contractor's safety programs and procedures. If that commitment is made, both the reason for the review and the applicable standard of performance should be made clear so the design professional does not inadvertently assume or share the contractor's safety responsibilities.

Where the design professional spots a situation that could become dangerous, there is a responsibility to notify the contractor, without specifying what action the contractor should take. In a situation of immediate danger, the design professional must take the appropriate action to warn people of danger and possibly take steps to correct the problem. However, the design professional has no obligation to know what steps should be taken. Under the Occupational Health and Safety Act, notification of the Ministry of Labour may be required. When the design professional does take some safety-related action in an emergency situation, it would be prudent to note in the subsequent communication that: the unsafe condition was noticed during a normal site visit; the design professional was not conducting a safety review; and, the design professional will not conduct safety reviews in the future.

Duty to reject substandard work

Some standard contracts give the design professional limited powers to reject work that does not conform to the requirements of the contract documents. The consultant should be alert for language in owners' contracts that says the consultant "shall reject" defective work. There is a subtle but real difference between having the power to do something and being required to do it. If design professionals must reject substandard work, then they are not able to provide the owner and the project with their judgement and discretion.

Occasionally there are instances when the owner will accept nonconforming work in return for a credit from the contractor. The only danger to the design professional here is that the substandard work might violate a code or regulation.

Certification

Progress payments

Any contractor submitting an Application for Payment is looking for as much money as possible and typically the owner is trying to spend as little as possible.

Deciding what certification or recommendation to send the owner can make the design professional's life more interesting. If the design professional recommends a payment that is higher than justified and the contractor defaults, the result could be a suit against the design professional for over-certification.

One solution is to require a schedule of values from the contractor associating sums of money with various aspects of the work. With that agreement, the design professional can review the percentage of work completed, multiply that by the agreed value and come up with the amount due for each portion of the work. The consultant should make sure the schedule of values is not 'front-end loaded' to make early payments unrealistically high.

Mortgages and Surety firms

There is a growing trend for outside interests to dictate payment procedures on a project. Lenders will ask the design professional to certify that there is enough money left to complete the work. The design professional should be careful not to indicate to the lender in any way that they are approving or certifying events or situations with which they do not agree.

The contractor's surety will sometimes ask the design professional to report on the percentage of work completed and the amount of money paid and retained. The design professional is under no obligation to file such a report and doing so could shift the risk from the surety to the design professional if the contractor defaults and there is not enough money to finish the job.

Changes are the rule, not the exception

Everyone expects changes on a construction project, but somehow they still manage to become a common source of claims. Some contractors will bid low, eliminating the profit, in hopes they can make it up through change orders.

Design professionals can certify the percentage of work completed and the amount of money paid and retained. They cannot certify that there is enough money to finish the job.

The owner and the contractor sign the construction contract. The design professional does not. That means the design professional has no power to make changes to the contract. In principle the parties to the agreement, the owner and the contractor, must approve all changes. Some standard contracts, however, grant the design professional the power to interpret the contract documents and make minor changes that do not affect costs or timing.

Under normal circumstances, all three parties, contractor, owner and design professional, must sign a change order. The design professional signs for a couple of reasons: the owner should have the consultant's advice before doing anything that affects the work; and, the changes may involve public safety or health and require the design professional's stamp.

The consultant must be careful not to make changes that will change the cost or delivery date of the project without the owner's knowledge and permission.

Changes call for same level of professionalism as original plans

Changes typically take place in a more highly charged atmosphere than that of the design phase. The work is probably already going ahead on the construction site and the owner is spending a lot more money. There can be a lot of pressure on the design professional to move things along faster. Every member of the design professional's team should always be aware that the professional liability issues remain the same, no matter how or when the instruments of service were prepared. It is especially important to consider all the ramifications of a change as they may affect other parts of the project.

The owner expected no change orders in the construction of a \$7 million plant. The design professional did not prepare them for any. There were more than 500 change orders and nearly 300 requests for information. The owner brought a claim for delays which was settled for more than \$1 million.

Educate the client

The client should be aware that changes are inevitable and some extra costs are usually involved. It is important that changes be proposed to the owner in sufficient detail for an informed decision. That can mean more design time, and the client should be prepared to pay for it.

Formal system

Because changes take place in an environment of greater haste and urgency, there is all the more reason to track them in an organised way, with sufficient documentation to show that the design professional met the reasonable standard of care.

Substitutions

There is usually only one good reason to allow substitution: "the product specified is not available".

Liability implications

Substitutions are a common source of claims. Consultants must use the same degree of care and skill in the implementation of design changes as they used in the preparation of the original design and specifications. It is important to consider all the ramifications that a proposed change will have on the project.

Client and contractor communication

The design professional should inform the client, in writing, of any reservations about proposed substitutions or changes. There may be pressure from the contractor to accept a substitute material. It is the consultant's responsibility to make sure that the substitute will perform at least as well as the material that was originally specified.

When the contractor requested the substitution of some waterproofing material in an underground garage, the consultant approved it with minimal research and no documentation. The material failed and many cars were damaged. The claim was settled for \$800,000.

Other Issues Moonlighting

Outside work by employees is a much more serious issue than it might appear. Professional design firms need clear policies on moonlighting and for volunteer services. The policies should be enforced. Most firms simply ban moonlighting outright. If the firm is aware of, and condones the moonlighting, tacitly or otherwise, it may assume some liability for the employee's after-hours work.

Moonlighting employees rarely carry professional liability insurance to cover their outside activities and may even be unaware of the legal risks involved. Coverage may be available, subject to employer's approval.

There may also be serious risks for a firm that hires someone who has recently been moonlighting, because the firm could become directly involved in the litigation arising out of the moonlighter's projects.

Document control

Documents should be prepared as soon as possible during the course of the project. Paperwork with dates, times and authors' signatures is much more credible than reports that are only written up after a problem arises. Those documents should also be as objective as possible. Facts should be recorded, not opinions or conclusions, because the notes are being made, presumably, at only one place and time, where the design professional may have only a narrow view of a situation.

There should be written records of:

- telephone calls
- meetings
- contracts
- approvals
- drawings, specifications, calculations, reports and correspondence
- design criteria/standards
- advisory letters
- product research
- submittal logs
- site visit reports
- correspondence with contractors, both sent and received
- change order data
- close out documentation

*"If it is not in writing,
it never happened!"*

Requiring and maintaining these records is both good risk control and good business management.

CADD issues

There are two main CADD issues. One is liability associated with the packages themselves, the second is liability when drawings are transferred electronically.

Most design professionals today work with some form of CADD package but many may not realise the liability issues associated with them. Many software designers refuse any liability whatsoever for loss or damage caused by the use of their products. Consultants may also face liability if they fail to 'adequately test' the software package.

Documentation should be complete and clear enough to allow another design professional to trace the evolution of the project. Subjective comments and drafts of documents should not appear in the documentation.

As for the electronic transfer of CADD documents, there is no guarantee that they will not be altered later. Unlike drawings, changes to CADD documents are not obvious or, sometimes, even detectable. If there is a design professional's 'electronic seal' on the drawings, clients or third parties could treat altered copies as originals. To avoid legal liability in a situation where a third party used altered drawings, a design firm would be forced to spend a great deal of time and money to prove they had indeed been modified. Many firms now stipulate that hard copy of the design be considered the original document for record and working purposes and used in the event of a dispute over electronically rendered drawings.

Design professionals should remove any electronic signatures or stamps on drawings before they are transferred and state in the contract that the design professional will retain the originals of the drawings on disk or tape.

Fax, E-mail and Internet issues

Based on the rapid developments of the last five or ten years, it is impossible to predict the impact that electronic communications will have on the design practice. We can make these brief points.

- E-mail communications are fast and reliable, but sometimes messages are so short the meaning gets garbled – it makes more sense to use enough words to get the point across.
- Just because you sent something doesn't mean it arrived. And even if it did arrive, there's no guarantee somebody read it. If email becomes a standard means of communication on a project, firms might consider printing out hard copies of all messages sent and forwarding them later.

There's lots of information on the Internet. Unfortunately, a lot of it is wrong and unless you have a contract with the content provider, there is no recourse. The Web might be useful for establishing the existence or location of information, but if it is being used as the basis for decision-making, it is only sensible to get confirmation.

Innovative design and materials

It is unfortunate, but probably inevitable, that new techniques and products tend to entangle design professionals in claims situations much more frequently than the customary way of doing things.

When innovative design is involved, owners should be completely aware of the risks; the final decision is theirs.

Design professionals should also decide if the new method or material requires additional field services and negotiate for the added expense of that presence with the owner. Where necessary, the consultant should also recommend workers with better skills for the implementation of advanced designs. If it involves a new product, the manufacturer should be provided with all design information and construction chronology, and warrant the suitability of the product for its intended use.

Contracts



PRACTICE MANAGEMENT

A practical guide to professional liability for Canadian design professionals

Introduction

Good contracts protect design professionals, but a few words can make the difference between security and risk. They can mean a lot more than profit and loss on a given project. The terms of a contract can literally mean the survival of the design firm and the livelihood of the design professional.

"Use of written agreements should never be considered an option: they are a must!"

– Canadian Consulting Engineer, Jan/Feb 97, "Third Party Exposure"

A large percentage of design professionals continue to render services without a written contract. How can you realistically expect to protect yourself against unreasonable claims from other parties, limit your liability, ensure you receive your fee and be indemnified against the re-use of your plans and documents if these provisions are not set out in writing?

It would be difficult to overemphasise the importance of obtaining a written agreement covering every piece of work a design professional does. As discussed below, we may all want a world where 'handshake' agreements are still good, but in today's complex environment, the written word offers the best and often the only hope for a successful outcome.

Design professionals hold a special place in the justice system. The law recognises their exercise of judgement, acknowledges the uniqueness of their design services, and protects the design professional who practices in a reasonable and prudent manner. However, the law also recognises that parties can use contracts to define their own responsibilities and obligations. This ability to modify their normal legal liabilities by contract means design professionals can assume unintended, or at least unexpected, risks. That is why attention to contract language is so important.

Design professionals are personally liable

While design businesses can be incorporated, that does not mean that design consultants enjoy the freedom from liability of corporate owners. They can remain personally liable for their professional actions. Where a contract exists, that liability can be limited in certain directions. Where no contract exists, in a situation where the general public is injured or at risk, the design professional's liability is unlimited. There are definite limits to the ability of professional liability insurance to protect the design consultant for alleged acts of omission or errors. Without a contract, the judicial system makes the ultimate decision about the extent of professional liability.

Good contracts are good business

Here is why professional duties must be detailed in written form, in a contract. The contract defines the consultant's duties to the client and that creates responsibility. That responsibility, in turn, creates liability. The duties form the basis of any judicial determination of negligence against the consultant. In other words, the courts will look to a contract to determine what the parties to it expected from one another. In the absence of a contract, the court will make a decision that may not reflect anybody's expectations.

Good contracts allocate risk fairly

Throughout this guide, we talk about ‘fairness’. In some circumstances, one party to an agreement might have the economic power to dictate unfair terms to the others. Where this creates risks that simply cannot be insured, it is difficult to understand what long-term advantage the more powerful party has achieved. Under the worst circumstances, the weaker party may be forced to default and walk away from all its obligations, leaving the other parties to the agreement to salvage what they can.

Good contracts allocate risk where it belongs. For the design professional, one simple test of a contract clause is to find out whether the risk it entails is covered by professional liability insurance. Any insurance company stays in business by covering reasonable risks and in today’s competitive marketplace, no company will willingly pass up business. If the risk cannot be insured, there is usually a good reason.

Insurance Exclusions

Professional liability insurance covers design professionals for mistakes and oversights, provided the services out of which they arise are usual and reasonable to the practice of engineering. For example, you would be covered for approving a substitute material which subsequently failed, or for making an arithmetical error in a specification.

Cost overruns

Cost estimating is an inherently dangerous activity. There may be liability if a cost overrun is large enough to show want of skill or care on the part of the consultant. The owner’s claim against the design professional would not be covered under most liability insurance policies, if it is founded on warranties or guarantees of cost. See Opinions of probable cost in the *Design Practice* section.

Express warranties and guarantees

All professional liability insurance policies exclude warranties and guarantees. As mentioned elsewhere, the design professional does not furnish a product and cannot work to a rigid schedule. A promise to deliver documents within a certain period, for example, may result in an uninsured claim.

‘Practising outside the profession’

Giving the client advice about legal or insurance matters, for example, could lead to the design professional losing coverage.

Do your people know the terms of the contract?

Every member of the design firm in a position to influence the company’s risk position should know what is in any given contract and what the terms of the contract mean in their daily work and responsibilities. Beyond the general loss control information they should be aware of, specific contracts may introduce special risk situations.

Contract versus tort

Contract law is different from other kinds of law, because it typically only involves the parties to a given contract. Under the law, contracts exist between design professionals and their clients, even without a written agreement; courts will hold the professional to the design professional's 'reasonable standard of care'. The written contract may define the contractual obligations between the parties more precisely than would otherwise have been the case. Contracts can seem lengthy because it is important that they express as clearly as possible the intentions of all parties under a wide variety of possible circumstances.

It is a sad fact that some of the biggest professional liability claims in Canadian history were made against design consultants who provided very restricted services on a project, based upon an oral agreement.

Torts are civil wrongs, which involve violations of the personal, business or property interests of persons whom design consultants ought reasonably to have foreseen would be impacted by their actions, if they were not prudently carried out. With or without a contract, design professionals are, like any other people, still responsible and liable for any of their actions that cause physical or economic harm to others.

Types of agreements

Oral

Agreements do not have to be in writing to be enforceable. However, it is simply not possible to think of any business or professional reason to use an oral contract. Design professionals who have been lucky with the work they have done on a handshake are just that – lucky. When things go wrong, the parties to an oral contract can find themselves in court, working from memory to recreate a version of events that might have taken place years ago.

For an \$800 fee from a friendly manufacturer, with no contract, an engineer examined a hand-drawn sketch with dimensions and properties of fan blades. The instructions were, 'Look this over for me, please.' When the blades failed, the manufacturer sued for \$275,000, claiming the engineer should have performed a test that would have caught the problem. The claim was settled for \$140,000.

Letter

When clients and design professionals use letter-form agreements, usually for small, well-defined jobs, they should address project-specific terms and information: owner obligations; compensation; schedule; and, identify any additional services.

Purchase orders

When clients insist on using purchase orders, the form will probably contain provisions that are inappropriate for design services. When buying goods or procuring construction work, for example, it is customary for a client to require express warranties and performance guarantees. As we state elsewhere in this guide, design professionals are governed by the 'professional standard of care', and are certainly not in a position to agree to warranties or guarantees.

Purchase orders are useful for ordering standard products, not commissioning professional design services.

Standard form

Standard form agreements are usually the product of a great deal of effort and consultation with owners, contractors and other groups as well as design professionals. They are often updated to eliminate inconsistencies or accommodate changed circumstances. These forms are effective because they are based on current legal precedents and litigation. Because standard forms are fair, balanced and backed by industry and trade associations, owners often accept them.

On a national level, the Association of Consulting Engineers of Canada produces standard contracts of various kinds for members, as do many provincial associations. (As discussed elsewhere, there is danger in taking clauses verbatim from one standard contract and inserting them in another.)

It is fairly easy to make amendments to other construction contract documents, but the parties should be careful to use language that is consistent with the rest of the document.

Custom

Where it is important to use custom agreements, due to the nature of the project or the client's wishes, the design professional may find it useful to check its terms against those of a standard contract.

There are some basic questions to ask when reviewing a contract, including:

Why is this language "better" than the standard form language?

What problem is being solved?

How does it affect the design professional's responsibilities?

Will the language affect the relationship between the client and the design professional?

Are you assuming liabilities for which you are not insured?

Have your lawyer, insurance advisor, or both, review contracts prepared by others

For peace of mind, there is probably no substitute for contract review by a lawyer who is familiar both with the construction industry and the prevailing situation in your province and municipality. If and when disputes arise, the fact that an experienced law firm reviewed the contract on your behalf may well prove influential in resolving the matter.

As part of its loss prevention service, ENCON will review contracts in order to identify clauses which impose liabilities for which you are not insured.

Design-build

The rise of design-build as a project delivery method in Canada is significant enough to merit its own section in this guide. *Design-build* projects are a major source of claims, so any consultant considering such a project should consult the Design-build section. For the purposes of this section, it is important to note that design-build combines designers' and builders' roles under a single point of responsibility.

Design-build contracts are often customised and advice should be sought from legal counsel before undertaking such a mandate.

There are many possible Design-build contractual scenarios. The situation whereby the contractor acts as the design-builder and retains the design professional is quite common and does not require any special insurance or contractual arrangements by design professionals as they continue to provide services to their clients, even though it is the contractor rather than the owner.

The arrangement that involves a joint venture between the design professional and a contractor is more complex and professional liability insurance must be negotiated individually.

Types of damages - contractual, tort and statutory

Design professionals may become liable for three categories of damages; direct damages, consisting of injury or death to a person, or damage to property; consequential damages, which are the indirect but reasonably foreseeable results of an action or failure to act; and, statutory damages, prescribed by the language in a statute. Statutory damages can be awarded, even where there is no apparent injury or damage to property or persons.

Asbestos/environmental concerns

Whether or not the design professional is aware of asbestos or other environmental hazards, responsibility for the abatement of those hazards should be the client's, as it is normally the client's land or property which contains the hazards in the first place.

Any time there is a situation where pollutants can lead to third party damage claims against the design professional, the client should be willing to consider one or more of the following solutions:

- Provide defence and protection of the consultant against claims arising from the release of any asbestos, or existing pollutant or other environmental hazard.
- Provide adequate compensation for the increased level of service and risk associated with such a project.
- Allocate by contract much of the risk to the contractor who is responsible for the removal, who can manage the risk and can usually be insured against such exposures.

Vicarious liability

Vicarious liability means, simply, 'the buck stops here'. The law says that in any work situation, someone is in charge. That person is responsible for the actions of the employees or people being supervised. Given this legal concept, design professionals must not only ensure that employees and subconsultants are properly informed and educated, but also be alert to any situation in which they might take responsibility for the actions of others; that could happen through issuing inappropriate instructions to contractors or their personnel on-site, for example.

Even if a subconsultant issues instructions to a contractor, the liability rests with the prime design professional, who in turn may seek to be indemnified by the subconsultant.

Field services determine general conformity only. You are not the guarantor of the project.

Construction phase services

Design professionals should make every effort to ensure that construction phase services are detailed in the contract. Clients should be made aware that there is no possible way that a design professional can anticipate everything that will occur on a construction site and create 'bullet-proof' documentation. Where the consultant is excluded, the risk to the project and the design professional's liability are both greatly increased by the strong possibility that someone else's on-site mistake or decision will wind up costing money. Further, the design consultant loses the opportunity to pick up design errors and rectify them at significantly lower cost. In fact, in many jurisdictions, the Building Code requires an architect or engineer to carry out field review.

The client should be aware that where the consultant cannot provide field services, the documentation will necessarily be much more extensive and therefore cost more. The client should also accept responsibility for interpretation of documents and changes made on the site, through both a waiver of claims and indemnification provision to pay the design professional for any costs caused by the field services decision.

The agreement should also release the design professional from claims if a client terminates service before or during the construction phase.

Risk allocation clauses

How to void your insurance coverage.

Indemnity

Indemnification provisions allocate risk or liability between parties. In a contract between an owner and a consultant, the owner might want indemnification from the design professional for liability or risk resulting from the negligence or other wrongdoing of the design professional. Consultants, in turn, may want indemnification from owners for liabilities or risks arising from matters under the owners' control or responsibility, including responsibility for consultants retained by the owner, thus protecting consultants from risks beyond their control.

In basic terms, design professionals should not accept 'unfair' risk, that is, risk that is not under their control. As with other terms that may appear in contracts, a basic test is whether the consultant's professional liability insurance will cover the risk.

That said, it might well be appropriate for the design professional to seek indemnification provisions in agreements signed with its own consultants.

Warranties and guarantees

As mentioned under Purchase orders, above, contract clauses that ask the design professional for warranties and guarantees should be examined carefully and, in most cases, avoided. Warranties and guarantees are appropriate for manufactured products and contracted work but not for design professionals, who are governed by the 'professional standard of care', requiring general conformity with plans and specifications.

Certification

By issuing certificates, design professionals can raise unrealistic expectations, create unexpected and unwanted legal relationships with other parties, and not least, preclude coverage under their professional liability insurance.

To avoid these problems, the professional should make it clear to the client through the contract language that what is being provided is professional opinion and not fact.

Certifications should be based on the contractual scope of services, identified as to purpose, for a specific time and specific entity and limited either to facts directly known or clearly identified as an expression of professional opinion, including a statement that it is based on knowledge, information and belief.

When a financial institution or other party requests the certification, the design professional should be sure the terms of the certification are consistent with the contract, do not create warranties or guarantees, or bring uninsurable liability exposure.

Instruments of service

Clients hire design professionals to perform services that are expressed through 'instruments of service', like drawings, plans and specifications. Those documents are not a product or 'works for hire' and the client does not normally buy or own them. Under standard contract forms, the design professional retains the design, the copyright of the documents and the right to use the information in the instruments of service. The client usually has the right to retain copies for information and reference in connection with use and occupancy of the project, but it is clearly stated that the documents are not intended to be suitable for reuse by the client or others for modifications to the project or any other project.

Control the use of your reports and designs.

If the instruments of service are transferred, the design professional should insert a provision that disclaims any responsibility that might exist and that commits the owner to take sole responsibility for any future use of the documents and to indemnify the professional for any claims, costs, losses or damages resulting from any future use.

Waiver of subrogation

In very simple terms, subrogation means that an insurer, having paid a claim on behalf of a design consultant, for example, can then sue a third party it states is really responsible, to recover that money. Waivers of subrogation are often included in agreements between owners and design professionals. Waivers preclude the insurer from seeking recovery from the responsible party.

Reports to third parties

The distribution of reports written by the design professional for a client to third parties could lead to third party claims against the design professional for negligent misrepresentation, if that third party relied on inaccurate information or statements in the report. For that reason, the consultant should not only try to control the distribution of reports but also include in them appropriate qualifications and limitations on the opinions and information they express. See Disclaimer of responsibility to third parties under the *Design Practice* tab.

Assignments

To the design professional, most of the risks associated with a client assigning its contractual rights to a lender are business and professional ones, but there are some professional liability concerns. There are two basic questions. Is the design professional extending its liability through its statements to the lender? Could the instruments of service be used in a situation beyond the design professional's control?

The design professional's contract might be silent about the issue, allowing the negotiation of favourable terms, or specifically prohibit assignment. The decision to accept an assignment contingent on a loan default does not require the consultant to extend its risk by providing a certification to the assignee or extend rights to the lender beyond those already in the contract.

Suspension of service

If the owner doesn't pay on time, the design professional should have the right to suspend performance of services or pursue the legal remedy of terminating the agreement with the owner. There are important professional liability issues associated with termination, and legal advice should be sought.

Suspension of service performance is less drastic than termination. There should be at least seven days of notice before performance of service is suspended.

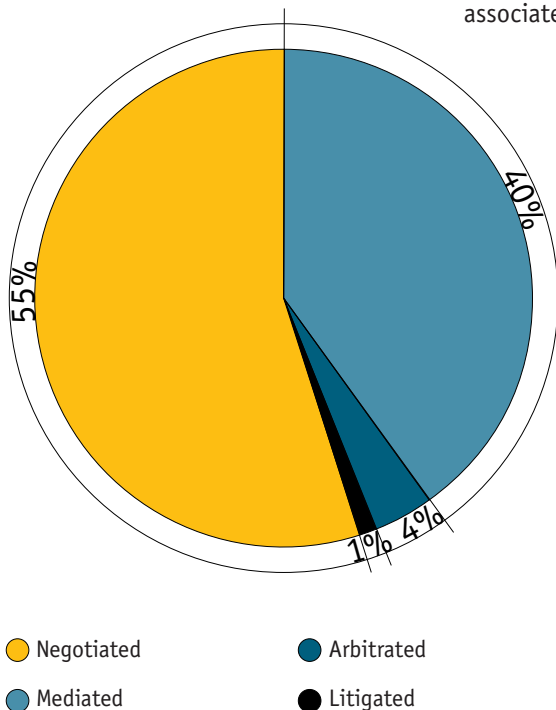
Dispute resolution

Many contracts between owners and design professionals contain ADR (Alternative Dispute Resolution) mechanisms. Mediation and arbitration are two such methods of resolving disputes instead of court proceedings. The parties have an opportunity to solve their own problems, often while there are practical measures still available to resolve the difficulty. Litigation is dispute resolution through the legal process. If no agreement is reached before a verdict is handed down, the parties have, in effect, allowed a third party, the court, to settle their dispute.

Resolution of claims

We have more information about resolution mechanisms in the *Claims* section. Here it may be sufficient to provide some brief information about mediation, arbitration and the ultimate means of resolving disputes, litigation or legal action.

Analysis of settlement methods



Mediation

In the non-binding mediation process, an independent third party works with the parties to reach solutions. This is usually the 'low-cost' alternative to arbitration and litigation.

Arbitration

In arbitration, a third party settles the dispute, once and for all. Arbitration is private and it can be fast and final, but it can also cost a lot of time and money, and there is no right of appeal, except in special circumstances. Arbitration clauses in a contract often specify that it will only be used for disputes under a certain dollar figure.

Litigation

Litigation, or deciding the dispute in court, can be a lengthy, time-consuming and expensive process. The direct cost of litigation to the insured is the deductible; indirect costs include damage to reputation and loss of business focus and relationships. Trials and their results are public and even a legal victory may have damaging consequences.

Going to court will always be expensive for everyone and full of surprises.

Limitation on assertion of claims

Parties to an agreement can include a provision that defines the time within which a client can pursue a claim against the design professional and the start date for the running of that contractual limitation period. That date should refer to an objectively determined date or event, like substantial completion rather than something vague like the date the client first discovered the basis for a claim. (This does not affect tort claims.)

Limitation of liability

Under a limitation of liability provision, the design professional and owner agree to limit the design professional's liability exposure to: a specified dollar amount; available insurance proceeds; particular types of damages; or, change order costs.

Unreasonable expectations

As discussed elsewhere in this guide, when words with absolute connotations like "all", "best", "complete" or "most economical" appear in contracts, there could be very serious problems for design professionals. These superlatives could establish a standard of care that would be impossible for any human or institution to meet. In fact, the design professional who signed a contract promising to meet the "highest professional standards" may be held responsible notwithstanding having acted in accordance with reasonably prudent practice. There is no reason for these superlatives to appear in professional contracts.

Watch out for 'est' words.

Design professional as additional insured

Owners and contractors will often include design professionals as additional insureds under their builder's risk, wrap-up or general commercial liability insurance policies, as members of the project team. However, such policies do not afford coverage for design errors but rather the general exposures they are intended to cover.

Client as additional insured

Some clients think they will be better protected against third-party claims by being included as a named insured or an additional insured on a firm's professional liability policy. This may be true for some forms of insurance but it is not an option for ENCON professional liability insurance because the client is not usually performing professional services and therefore does not have the risk that the policy is designed to cover.

Unlike other types of insurance policies, the professional liability insurance policy does not make payments to the named insured but on behalf of the named insured in the event that the named insured's negligence in rendering professional services causes damage or injury.

Standard language is contract-specific

Standard contracts have been drafted to track with other documents in the construction process. There can be serious danger if design consultants use the 'cut-and-paste' feature of word processors to combine language from different standard contracts. Along with other details, definitions of terms may be very different from one to the other. (Whenever ambiguity occurs in contracts, it always seems to favour the other side in a lawsuit.)

Consistency between all contracts

The design professional should be sure to examine any other contracts signed with the owner. The consultant's contract should be compatible with that of the contractor, the construction manager and the project manager. There should be no inconsistencies between the contracts for lawyers to exploit, and no doubling up of roles and responsibilities.

Non-contractual liability

These paragraphs echo information in other sections of this guide, but the point is worth repeating. On or off the job site, it can be very easy to provide a contractor with advice or information that in effect transfers responsibility from the contractor to the design professional. For an architect or engineer, it may go against the grain to know a solution and not be able to express it, but there are many situations on a job site that simply are not the consultant's business. When communicating with contractors anywhere and any time during a construction project, the design professional should always be conscious of exactly what can and cannot be said. Among other things, the contractor is responsible for the "means, methods and techniques" of getting the job done. Any specific advice or instructions from the design professional could be construed as assuming responsibility for results.

Assuming liability where there is no contract or payment

As mentioned in *Communications* some design professionals get into trouble by giving advice without being paid, without a contract and possibly, without even knowing that they are, in effect, giving their professional opinion.

Claims



PRACTICE MANAGEMENT

A practical guide to professional liability for Canadian design professionals

Introduction

In the same way that 'defensive driving' establishes a different vision of the road, we hope that "Practice Management" and other communications from ENCON help to set up a 'loss prevention' mindset.

Between 1965 and 1980, there was a six-fold increase in claims and the cost of each claim went up sharply. Consultants did not become more negligent; society has become more litigious, and lawsuits are much more common against all categories of professionals.

Even groundless claims cost the design professional time, money and valuable reputation. This guide provides advice on minimising those costs. Whether a claim is settled before trial or determined in a judgement, the design professional will still have to pay the deductible amount of the policy. Every effort should be made to prevent claims, but if they do occur, they will be defended vigorously and effectively.

What is 'professional liability'?

The sources of design professionals' professional liability lie in two areas of law, "**liability in contract**" and "**liability in tort**".

Strictly speaking, under "liability in contract", the consultant is answerable for either the breach of a term in the contract or for the failure to perform the services described in the contract with due care and diligence. (ENCON policies do not cover all breaches of contract, since they may not be professional liability claims arising from issues like error, omission or negligence in the performance of professional services.)

"Tort liability" is a physical or economic wrong done to someone that can lead to claims against the party responsible, not just design professionals. If acts of negligence or omission by design professionals harm people, whether or not the design professional has a contractual relationship with those persons, then the consultant can have "liability in tort" to those persons.

LIABILITY TO THIRD PARTIES IN TORT

During the course of construction of a project the consultant becomes aware of a defect in some machinery in the client's existing plant which, if not repaired, could result in physical harm to one of the client's employees or property damage. If the consultant did not warn the client of the situation and there was a subsequent accident, then the consultant could be liable not only to the client but to anyone else injured by the incident. This would be "liability in tort" to the client for failing to warn the client of a known hazard.

How professional liability insurance can protect you

Because design professionals are *personally* liable for the consequences of their actions or failures to act, any consultant in active practice should be protected by professional liability insurance. This coverage not only protects your personal assets, it provides a means of maintaining a good reputation by defending allegations that might be frivolous, malicious or false.

When professional liability insurance cannot protect you

Liability insurance is not armour plating. It can help you manage claims, but it cannot prevent them. Professional liability insurance cannot protect consultants: who assume liabilities that are specifically excluded; when they do or fail to do something that voids or invalidates their insurance; or when the damages exceed the limit of liability purchased by the consultant.

There are certain risks that most, if not all professional liability insurance will not cover. For example, many of the business risks design professionals may be asked to assume in Design-build projects are specifically excluded, for reasons that we look at in the *Design-build* section.

After a claim is made, the insured may take some action that can lead to a loss of insurance coverage. That could include a delay in reporting the claim, which means the insurer loses valuable time needed to prepare an effective defence or otherwise is prejudiced because of the delay.

'Practising outside the profession' could also lead to a loss of coverage. An example of this would be giving the client advice about legal or insurance matters.

When a claim occurs or is expected

Design consultants should protect their talent, their businesses and their profession by heading off claims whenever possible and, when they appear, by fighting them vigorously and effectively. Among the best defences against claims are a design team that has been educated about insurance matters, impeccable documentation of all relevant communications and, efficient and well-enforced office procedures.

Sometimes, however, claims are unavoidable. When a claim does come in or is expected at any time, the design professional should implement a plan to contain and manage the situation. Each firm will probably want to prepare its own plan for handling claims. Here, we offer some general advice and some specific points that might be included in a plan. (This information is also available in the *Checklist* section.)

As described earlier, an engineer's well-meaning but misguided apology for the collapse of a retaining wall cost a great deal of time and money, even though he was not at fault. It took a great deal to persuade the other parties that the apologetic engineer was not, in fact, responsible.

Keep cool

Even though claims are submitted in a highly emotional atmosphere and nobody likes to be confronted with a direct and specific accusation of negligence, it is important to treat the matter on a professional level and avoid any increase in the level of anger or animosity. **But, in no way, shape or form should anyone on staff at the design professional's firm apologise, offer to make the situation right or assume any responsibility!** This can make it impossible for the insurer to mount an effective defence against the claim. Without giving offence, try to only receive information and do not transmit. You may not be in possession of all the facts.

Contact insurer promptly

Report all the circumstances surrounding the claim to your insurer immediately. Delay can compromise the insurer's ability to defend the claim, while early notice allows for a well-prepared and confident response. Any action taken after the claim arrives should be cleared with the professional liability insurance company. ENCON has the staff, the expertise and the experience to help find a reasonable solution. There is no reason to delay or avoid calling on our services; after all, you pay for them with your premiums and helping resolve your difficulties is why ENCON is in business.

Maintain communication

Keep working on the project and continue communicating normally with all parties, including the party that submitted the claim. This may be difficult but it is very important. Failure to communicate may leave the design professional subject to additional liability.

Assemble documentation

The desire to take some kind of effective action in a threat situation can be channelled into the practical and necessary task of assembling and organising all the relevant information for the insurer's representative.

Make no response

Do not respond to the claim until you have thoroughly researched the documentation and any available information and sought the advice of your legal counsel or ENCON.

Warning signs of potential claims

The contractor is in financial difficulty

When it is obvious that the contractor is in trouble, and there is a strong possibility that there will probably be a claim for extras, it's time to strengthen the alliance with the owner and lay the groundwork for a common defence.

The owner is in financial difficulty

When owners restrict field services to save money, it is appropriate to warn them in writing that it is no longer possible to sign unqualified certificates because the design professional cannot be responsible for what is going on in the field. If inferior materials are substituted, again, owners should be warned in writing. (Remember – design professionals are not just liable to owners. In tort, they are liable to the world at large.) Where issues of safety are concerned, it is the professional's duty to stop the project by reporting them to the proper authorities.

Unexpected site conditions

Every time contractors report an unforeseen condition, owners should be briefed. The consultant should force a decision. The worst thing design professionals can do is allow work to continue with a promise to discuss extras later.

Arguments with contractor about quality

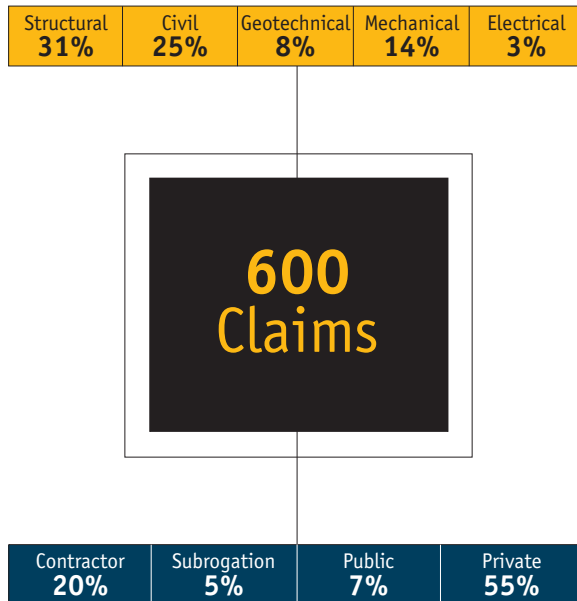
Where contracts give design professionals the authority to reject improper work, they should do so, with the owner's full knowledge of the situation. Consultants should not assume responsibility and 'protect' owners from such situations. Final decisions rest with owners. An owner looking at an unexpected claim from a contractor for a large amount of money will often drag the consultant into the lawsuit as a third party.

Owner must be sued for fees

There are only two reasons for non-payment; either the owner is out of money, or the owner is unsatisfied with the design professional's services. In either case, it is worth considering the possible or probable consequences of a lawsuit against the owner. Almost every time a consultant sues an owner, the owner immediately files a counter-suit. Usually the counter-suit is ten times the amount of the fee claim. Often the claim has no merit, but is costly to defend, both for the insured and the insurer. Are the unpaid fees worth the time and trouble of a lawsuit?

Sources of Claims

Looking at all claims from a recent year, this matrix shows the sources of claims by client, by design specialisation, by design function and by project type.



Sources of claims

In general

There was a time when lawsuits against any professional were so rare as to be noteworthy. The world has changed a lot. All professionals - doctors and lawyers as well as design consultants - are facing more lawsuits. The dollar amount of damages awarded has been increasing as the courts have broadened the definition of professional liability. In some situations, where the contractor has gone bankrupt and the developer has departed, the design professional may be the only party left to sue.

Some specifics

Nature of project

Some project types are more likely to attract claims than others. Because residential condominiums are, by definition, built for resale, the developer has a strong interest in building as cheaply as possible. If serious problems arise after the condominium units have been sold, the owners may sue the design professional because the developer and contractor are insolvent or cannot be found.

Professional capability

As we indicate elsewhere in this guide, there is a great deal of risk involved in 'overselling' professional capabilities, either through published, promotional material, statements in proposals or statements to clients.

Competitively bid, fixed price project

The disadvantage to this format is the tendency to drive costs as low as possible. All too often, when price is the sole consideration, elements of the design mandate like field services can be compromised. Price should not be the sole factor governing selection of a design consultant and a contractor.

Project delivery method

Projects led by construction managers with multiple primes and 'fast track' projects may attract more claims because project delivery requires more coordination.

Good design must be protected with field services

Almost by definition, projects in which the design professional does not provide field services attract more claims. Typically, small problems that the consultant would have detected during construction turn into big ones and eventually, claims are filed. Some of the claims against the consultant may succeed, unless a very high degree of protection against such claims was included in the contract.

Client characteristics

Clients bring sixty per cent of professional liability claims against design professionals. When their projects go sour, either through bad luck or poor skills, they often end up in a tangle of lawsuits.

Inflexible regulations and rigid bureaucracies may bind some public sector clients.

Even good clients can run into bad luck during the course of a project and seize upon an all too common method of saving money – they stop paying the design professional and, when pressed for payment, immediately sue for negligence.

Client warning signals

Here are some warning signals that, sooner or later, the client may file a claim.

The client:

- refuses advice about scope of services or level of effort
- will not negotiate fair terms and compensation
- insists on unrealistic performance standards like 'highest' and 'most economical'
- insists on being indemnified but will not indemnify the design professional
- insists on services being performed to an unreasonable schedule
- refuses to conscientiously consider advice about contractor
- refuses to pay, especially when services are complete

When the owner decided not to have engineers on site during the construction of a dam project, the engineering firm did not insist on being present or advise the owner of the possible consequences. The firm failed to recommend sufficient geotechnical investigation and might have prevented serious problems had engineers been on site. When there was serious leakage and erosion, the owner brought a claim of \$2 million for remedial works and loss of business.

Costs of claims

Claims against the design professional can cost a great deal of time, money and frustration. After all, nobody who has spent years qualifying for a profession would willingly spend hours and days of their time defending themselves against claims when they could be somewhere else, doing useful and interesting work. Other costs, like loss of time, business and professional reputation, are more difficult to measure, but they are real costs all the same.

Planning for problems

In this section and with greater detail in the *Communication* section, we offer some guidance in heading off problems through methods that contain and control difficult situations. It is often possible to channel disputes into areas where they can be quickly and quietly resolved. Even where these techniques do not achieve that result, they are useful in clarifying the issues and setting up both a paper trail and a pattern of communication rather than accusation and recrimination.

Like anything else in business, relationships with the other parties in a construction project can and should be managed. On a small project, it might be as simple as checking in with a small number of people on a scheduled basis, to exchange information and review progress. On a larger project, more formal and rigidly scheduled meetings may be necessary, complete with agenda and minutes. In either case, the goals are the same: to head problems off before they happen, to resolve disputes and above all, to keep the project moving towards a successful conclusion, so that everyone involved makes a profit.

Partnering

There is more detail about Partnering in the *Communication* section, but for purposes of this section, it is probably enough to say that it is a process that establishes procedures for resolving disputes at an early stage. Typically, once the three parties in the construction process, owner, design professional and contractor, agree with the concept, a Partnering workshop is held. There, as a team, participants develop a strategy for problem solving, so managers can address issues quickly and efficiently. The benefits of Partnering have been shown to include: lower exposure to claims; lower risk of overruns; better quality of work; increased productivity; and, faster decision making, among other benefits.

Resolve problems quickly, at the appropriate level

Often, resolving problems quickly means resolving them as close as possible to the scene of the difficulty. The dispute should move up the chain of command only after the two sides have tried and failed to reach an agreement. At that point, managers at the next level should make sure their people have done their best to contain the problem before going through the exercise again.

Managers at each level should try to develop confidence in the people working for them, and demonstrate that confidence through delegation.

Resolution during project delivery

When the parties directly involved disagree during a construction project, the following resources are ways to get a fair decision quickly. As discussed in the *Contracts* section, there are some costs associated with each, and they deliver suggested solutions rather than final, binding decisions.

Standing neutral

Under this method, a single design professional is brought in to resolve disputes. Typically this person is highly experienced in the particular kind of construction project that is being undertaken and familiar with standards and norms in the geographic area of the project. The standing neutral method is usually selected at the beginning of the project.

Dispute review board

Like the standing neutral, dispute review boards are usually appointed at the beginning of a project. They are often made up of one person from the 'owner' side, one from the 'design professional' side and a third from another profession such as law or accounting.

Mediation

In mediation, both sides agree to a non-binding process, in which an independent third party works with the parties to establish the facts, clarify the issues and agree to solutions. This is usually the 'low-cost' alternative to arbitration and litigation and the first step in settling a dispute. All sides usually have everything to gain by working with the mediator in good faith. There is a good deal of existing contract language dealing with arbitration, or participants can create their own terms to suit their particular circumstances.

Arbitration

Arbitration also introduces a third party to settle a dispute, but this process is designed to result in a final determination, the 'binding' part of 'binding arbitration'. There are some advantages to arbitration, closure among them, but it can be lengthy, expensive and there is no right of appeal. If there are 'winners' and 'losers' in arbitration, they have won and lost for good.

As mentioned before, because of its absolute nature, arbitration clauses in a contract often specify that it will only be used for disputes under a certain dollar figure.

Litigation

Like arbitration, as discussed elsewhere, litigation can be a lengthy, time-consuming and expensive process, at the end of which the design professional can lose. While the direct costs of litigation are high enough in time and money, there are indirect costs the consultant should consider, including damage to reputation, waste of valuable work time and loss of business relationships.

Settling claims – what actually happens?

For design professionals, claims can be upsetting and disruptive. To put the process in focus, we describe here the course that "typical" claims might take. Because claims are based on human reactions to real or perceived problems, each one is different and each one can take a number of twists and turns. However, these are some important events that take place in the claims process.

Summary of claims status

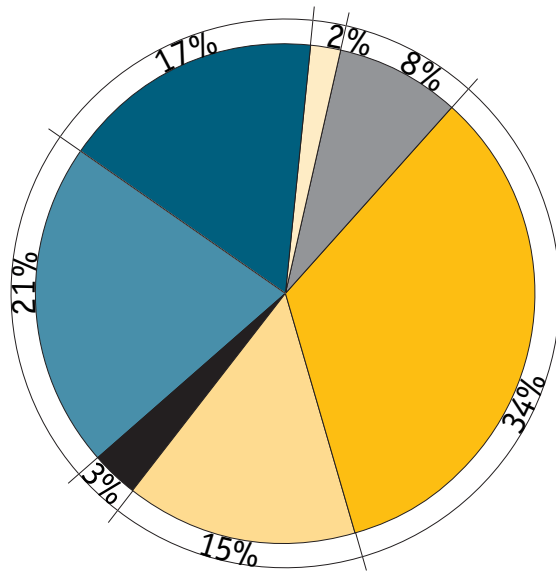
This graph shows the typical disposition of claims after three or four years.

'Closed indemnity' means that a claim has been paid, in whole or in part.

'Open, minimum reserves' means there has been no finding of liability but the claim is not yet closed.

'Closed, expenses only' means no indemnity was paid, because the claim was successfully defended or negotiated.

'Open, expenses only' means that the potential exposure due to the claim has not yet been quantified.



- Open Expenses Only
- Closed Indemnity
- Open Ongoing
- Closed No Payment
- Open Min Reserves
- Closed Expenses Only
- Not Covered

Notification

Any claim begins with the notification to the design firm that a problem exists.

The notification can take any one of three basic forms. The first one is an oral demand, the second is a written notice and the third is a formal Statement of Claim.

Upon receiving any of these notifications, the design professional should immediately forward the details, with all pertinent documentation, to ENCON and the insurance broker.

Please note that if it is a Statement of Claim, you only have a certain amount of time to respond, and the period of time is different in various jurisdictions.

Upon receipt of notification, ENCON will first contact you and then hire and pay for an adjuster to determine coverage and investigate the claim. If the notification is a Statement of Claim, in other words, already a legal matter, ENCON will typically hire a lawyer at the same time as an adjuster, to protect your interests until coverage issues, if any, are resolved.

At this point, the handling of the two major types of claims diverge. First, we look at the 'non-litigious claims' where the notification is oral or written, but litigation is not yet involved. Then we will look at how claims involving a Statement of Claim are handled.

Simple demand or 'non-litigious'

In this situation, the adjuster will meet with anyone and everyone who can provide information and context about the claim. Among the people he or she will probably want to see are the design professional, the client and the contractor. The adjuster then prepares a report and typically both the insured and ENCON will receive that report within 60 days, unless there is some urgency to the file, in which case it will be expedited accordingly.

This report will include a brief history of the events surrounding the claim, an analysis of the problem and a determination of liability and exposure. 'Liability' in this case means the extent to which the design professional is at fault, and 'exposure' is the potential, total risk of the claim, which would include court costs, expenses, and of course, the possible payment to settle the claim.

It will also include recommendations on the next steps to take; the adjuster will often offer an opinion about what to do. The next steps could include hiring an expert to look at the facts and provide an opinion about liability, the offer of a simple settlement, a proposal for mediation or, if the design professional is not liable, a statement to that effect in a reply to the demand. The claimant determines the next event, by providing more information or taking the dispute to the next step, which could be another round of investigation and negotiation, or litigation. (See the next heading, Statement of claim.)

There are variations on the simple settlement. If the facts are indisputable and liability is clear, ENCON would make a reasonable offer to settle. By doing so, the situation is cleared up quickly and all parties can return to doing their work. Under ENCON policies, the insured must approve any settlement.

We look at mediation in detail elsewhere, but we can say here that mediation is useful when there are more than two parties involved or if the facts and issues of liability are not clear-cut.

Statement of claim

As we say above, when there is a Statement of Claim, it is already a legal matter and as well as hiring an adjuster, ENCON will appoint an experienced lawyer to defend the claim. That lawyer is always experienced both in law and in handling construction claims. The design professional and the lawyer then meet to exchange information and prepare the case.

The lawyer will provide ENCON and the design professional with options for defence. If there is no liability this may include a Summary Judgment application, which means that ENCON applies to the court to have the claim dismissed because an examination of the facts clearly demonstrates that it has no merit.

In almost every case in litigation, an expert witness will be appointed to help determine if the design professional met the reasonable standard of care. The report of the expert witness is used to determine whether the consultant is liable, and if so, the extent of that liability. In some claims, the design professional may be only partially responsible, in which case it is important to determine their share accurately. The lawyer will then mount the best possible defence.

Most of these litigious files will be settled through mediation. A few are settled at this point, through strenuous negotiations with all parties and the benefit of counsel. A very small number will go to arbitration. Less than one per cent of claims end up in court.

Roles in the claim process:

Insured

As the named insured on the policy and as the named party on the statement of claim or demand, the design professional has certain roles and responsibilities.

First, as stated above, there is a duty to report the matter promptly. An adjuster will be appointed and will, almost invariably, visit the design professional and meet to discuss the details of the claim in depth. There is a duty to cooperate with the adjuster and, unfortunately, time spent with the adjuster is not reimbursable.

The design professional has a duty to attend 'discoveries' or in-depth interviews between the parties, where required. Again, time spent preparing for and attending discoveries with legal counsel is not reimbursable but coverage for reimbursement can be purchased as an endorsement to a professional liability policy.

The design professional also attends meetings, mediations and arbitrations, as necessary. If the claim goes to court, the design professional is required to attend when called for by the proceedings.

The design professional has a duty to cooperate with the insurer, adjuster and counsel throughout the process. Unless the file is determined by court order, the design professional's approval is required to settle the claim.

Claims Analyst

ENCON claims analysts working on claims files have the responsibility of coordinating the action, to make sure the right people make the right moves. It is important to note that several ENCON analysts are themselves design professionals, with construction experience. Regardless of their background, analysts have both a broad overview of the environment in which design professionals work and a grasp of the detail necessary for successfully dealing with claims. The analyst determines what offer is made, if any, and the amount of that offer, as well as working with and directing lawyers on each legal step in the claim.

Adjuster

An adjuster is always an independent consultant, hired to get the facts behind a claim. Often, the person will have a strong background in construction. Many have special skills in law, insurance, engineering or other disciplines and they are chosen for each assignment on the basis of their qualifications. The adjuster then does whatever is necessary to get the relevant information. That means meeting with the design professional to learn the history of the file, site visits and interviews with anyone else who can provide relevant information. Adjusters are skilled negotiators and often settle claims directly or through their informed contribution to mediation.

Lawyer

Although recommended and paid by ENCON, the lawyer's professional responsibility is to provide the best defence possible to the design consultant. The lawyer is also responsible for discoveries. Lawyers will also often attend at mediations and always at arbitrations and court appearances.

Design-build



PRACTICE MANAGEMENT

A practical guide to professional liability for Canadian design professionals

By the year 2005, it is estimated that more than 50 per cent of construction projects in North America will be undertaken using the Design-build method. For the owner, design-build promises project delivery for a 'guaranteed maximum price' (GMP) through a single point of responsibility. The advantages for owners go well beyond convenience, however. Estimates show that Design-build can save owners as much as 30 percent compared with the traditional design-bid-build scenario.

Owners, contractors and design professionals are still learning about the changes Design-build brings to their interrelationships. Among the concerns design professionals have expressed are the method's tendency to inhibit innovation and the pressure it can place on contractors to cut quality so they can submit competitive bids.

Design-build changes how design professionals work and that has important implications for their professional liability insurance. Historically, to establish professional negligence, a plaintiff had to prove that the design professional had not rendered services with the same standard of care that other architects or engineers would have rendered under similar circumstances for equivalent projects. Under a Design-build mandate, however, the Design-builder provides an express or implied guarantee to the client that the project will be fit for the intended purpose; the client merely has to establish that a deficiency or defect exists in the project in order for a claim to be successful. See *Warranties and guarantees* in the *Contracts* section.

Traditional project delivery - design-bid-build

Under the 'design-bid-build' method of project delivery, an owner enters into an agreement with a design professional for design services. After a bid or negotiation process, the owner contracts independently with a contractor to build the project.

During construction, the design professional often administers the construction project on the owner's behalf, as an agent.

Under the design-bid-build method, the construction contractor is principally responsible for the means of construction, techniques, methods, procedures and sequences needed to build the project.

There is no contractual relationship between the contractor and the design professional under this method. Because design professionals represent owners, their duty is to obtain a project that generally complies with the requirements of the contract documents.

Even though there is no contractual relationship with the contractor, design professionals have the obligation to be fair and impartial during the construction phase, if they are called upon to mediate disputes between owners and contractors. As well, design professionals assume liability because the contractor depends on preliminary design information to prepare their bids; if subsequent changes increase their costs, contractors will submit claims against the owner to recover those costs or may sue the design professional in tort. (See Design growth, below.)

Design-build

In general, Design-build refers to project delivery through a single entity which is responsible to the owner for providing comprehensive design and construction services.

Design professionals involved in Design-build projects need to consider a number of risk management factors, including: their role in the Design-build entity; contracts; licensing; insurance and surety bonding; and liability exposure.

(Other project delivery alternatives to the Design-build method are discussed at the end of this section.)

In general ...

Because Design-build contracts are often customised, design professionals should obtain legal advice before signing them.

There are many possible Design-build contractual scenarios. The situation whereby the contractor acts as the design-builder and retains the design professional is quite common and does not normally require any special insurance arrangement by the design professional.

The arrangement that involves a joint venture between the design professional and a contractor is more complex and standard professional liability insurance typically does not cover projects undertaken on this basis. However, it can be underwritten.

When considering Design-build projects, design professionals must weigh a high initial commitment of time and money against a low reward. The checklist, [How To Evaluate A Design-build Project](#), offers some hints about the proposal stage.

Design-build changes the roles of ...

... the design professional

For an initial high investment of time and money and slow initial reward, the design consultant is providing documents upon which the contractor is basing its tender, a tender which has a guaranteed maximum price (GMP). In other words, no price increases will be considered post award, as control of all aspects of the bidding process is in the hands of the contractor. The contractor has based its GMP on the design consultant's often preliminary drawings. We discuss this situation in detail under Design growth, below in this section.

... the contractor

There can be some inherent tensions between contractors and design consultants in the Design-build method. Contractors often make decisions based on economics whereas the design consultant has a duty to base design decisions on public safety and sound engineering principles. The usual conflict between the contractor and the design consultant relates to the design consultant's decisions being based upon the quality of the design, including long-term performance, durability and lower maintenance objectives. The Design-build contractor may or may not share these objectives. As well, the contractor may not be prepared to offer anything more than minimum design standards whereas the design consultant will recognise that minimum standard does not necessarily offer the best product.

... and the owner

In the early days of design-build, the owner was not involved in preliminary engineering. Today, the owner is often involved with some "conceptual" designs so that, when tenders are submitted, the basic requirements track. In the early stages of Design-build, for example, the owner might have simply specified a 'sports arena'. Now, the owner might retain a consultant (a practice known as 'bridging') to do some preliminary work to outline general project requirements; in this example, perhaps seating capacity, rink size, concession space and HVAC specifications. The Design-build team then further develops a detailed price proposal and design to deliver the project.

Design professional's insurance under Design-build

Most professional policies issued to architects and engineers contain a provision that provides coverage for claims arising out of Design-build projects whereby the design professional retains an unrelated contractor. Most policies can be modified to provide coverage for Design-build mandates in which both design and construction is performed either directly or through a related company.

Coverage will not be extended, however, for claims arising out of faulty workmanship or materials unless they are due to an error in the field services/inspections of the design professional. The policy also stipulates that coverage is excluded for claims arising out of deficiencies in materials, equipment or products supplied or manufactured by or on behalf of the design professional unless the procurement is carried out by the design professional as agent of the owner. Design professionals who are contemplating a Design-build mandate should contact their insurance broker to ensure that they have appropriate coverage.

Liability

Depending on the contract, the design professional may be liable for construction deficiencies as well as design deficiencies. There may also be a liability exposure to other members of the Design-build team. As noted, there is the possibility of liability in the contractor's preparation of bids based on information supplied by the design professional.

The Design-build Dilemma

In a contractor-led Design-build project, the engineer quantified the amount of reinforcing steel that met code requirements, with seismic implications as one consideration. To hold costs down, the contractor asked the design professional to reduce the amount of reinforcing steel to meet the minimum code requirements. The amended design omitted the recalculation of seismic considerations and severe cracking resulted. In this case, time pressure on the design professional was an obvious contributing factor. A claim was brought for \$2.1 million.

'The members of ACEC believe that it is in the Owner's interest to have proper engineering services as a fundamental requirement for good project delivery. Therefore, ACEC takes the position that wherever the Owner does not have appropriate experience with D/B (Design-build), a separate CE (consulting engineer) firm should be retained to act on its behalf in developing a design basis and otherwise act as its representative.'

*From "Industry Position on Design-build"
Association of Consulting Engineers of Canada*

Exposure to Environmental Risks

The agreement should contain effective provisions to deal with exposures relating to the existence of pollutants on the site, whether known or unforeseeable. Given the nature of current legislation, the design-builder assumes tremendous risk with respect to environmental risks by virtue of the design-builder's presence on and control over the site. The transfer of risk back to the owner is recommended and must be in the contract.

Warranty of fitness

The Design-build contract should separate responsibility for design from responsibility for construction workmanship and materials. Otherwise, design professionals may be deemed to have provided an implied warranty of fitness for the entire project. The 'standard of care' defence might not be available in this situation and the liability would not be insurable under the professional liability insurance policy.

Guarantees and warranties

As noted earlier, the design-build mandate may create an implied warranty by the design professional. Clients may seek additional comfort and demand that an express performance guarantee be written into the agreement. Warranties pertaining to workmanship and materials are customary in the construction industry and probably cannot be avoided. They should not, however, be extended to apply to the professional services. Design professionals should bear in mind that any claim arising out of an express warranty or guarantee pertaining to their design would be excluded under the terms of the professional liability insurance policy.

Design professionals may warrant that they are qualified to carry out the work or that the project design will be capable of meeting a performance target. They should not guarantee that a project will produce a certain output or generate a specified income as they do not control the manner in which the project is constructed or operated and cannot be responsible for performance deficiencies due to the acts of others.

Insurance and bonding needs

As the design professional will assume responsibility for construction deficiencies under a Design-build mandate, it is important to note that contractors cannot obtain insurance coverage for damage to the project arising out of faulty workmanship or materials. The architect or engineer should deal only with contractors that have the financial capability to correct deficiencies and honour warranties. The design professional should also ensure that adequate bonding is in place for performance, labour and materials. If the contractor is unable to complete the project, the client will look to the design professional to finish the job. The bond will provide a means to meet that demand.

Roles and risk transfer in Design-build

As described in the next two sections, the Design-build method can bring a great deal of additional risk to the design professional. The design professional should transfer some risk; by requiring the contractor to indemnify the design professional; by ensuring the contractor has general liability coverage, including contractual liability coverage; by ensuring the contractors and its subcontractors purchase both performance and payment bonds. (Design professionals must be careful not to advise contractors and subcontractors on insurance and bonding. 'Practising outside the profession' creates liability which may not be insured.)

Roles the designer can assume

Design professional as design-builder

The design professional that assumes the prime contractual relationship with the owner has frontline responsibility for both design and construction. The design professional may subcontract the build or construction part of its contractual responsibility to a construction contractor.

Business risk is not insurable and that includes statutory fines and penalties, subcontractor defaults and payments problems, liquidated damages imposed due to late project completion and some unanticipated costs.

Contractor as design-builder

In this method, the construction contractor has the prime contractual relationship with the owner, and frontline responsibility for both design and construction. The contractor may retain a design professional to provide traditional design and certain construction administration phase services. This method does not represent any different insurance risk to design professionals than they assume under traditional design-bid-build arrangements, even though the client has changed. However, because there is no longer a direct relationship between owner and consultant, effective communication is very important.

Design professionals should make contractors aware of the economic value of their services in controlling project costs, both in the design and construction phases. Because there may be conflicts between design professionals' responsibility to meet code requirements and contractors' budget considerations, there should be a contractual mechanism to resolve technical conflicts. That contractual mechanism should include subcontractors. Design professionals should also define their authority so that their ability to carry out professional duties during design and construction review is not compromised.

As well as liability under the traditional professional standard of care, the design professional may, among other things, also be subject to liability for the warranties, guarantees and indemnification obligations of a builder, strict liability and product laws and increased exposure under pollution and safety legislation.

Design professional in joint venture with contractor

The joint venture method of delivery brings the same kind of additional liability risk and exposure, as well as the risk of being "jointly and severally" liable with the contractor. That means both the design professional and the contractor are each liable to the project owner for the entire obligation. If one party cannot pay, even though it may be partly or completely responsible for the loss, the other party in the joint venture must make up the full amount.

Design professional as advocate consultant

Although the contract only recognises one consultant, the one engaged by the design-builder, this does not preclude the owner from retaining a consultant as its representative and indeed the owner should ensure that it has adequate professional advice to interact appropriately with the design-builder. In particular, the owner should retain a consultant to represent its interests in the following areas: preparation of the Statement of Requirements; evaluation of the Design-build proposals – design solution, schedule and the commercial proposal; review of the detailed design as it progresses; coordination of the design with the owner's design; and, review of supporting documentation in regard to certificates for payment and Substantial Performance.

Contract considerations

Penalty and liquidated damage clause

Clauses which seek to impose financial or equivalent penalties for late completion or inadequate performance should be avoided whenever possible. As with guarantees, coverage will not be afforded for claims that are based upon penalty clauses in the contract.

Limitation of liability

Unless provided for in a contract, the architect or engineer has historically faced unlimited liability for errors in design and professional services. On the other hand, contractors have been able to enjoy the benefits of a limited warranty period of one year under the CCDC documents or longer if specified in the contract.

The Design-build agreement should, whenever possible, include a reasonable limitation of liability in terms of time and money which applies to both design and construction deficiencies.

Progress payment

The contract should specify what role the design professional will have in dealing with progress payments. Some contracts make the design professional responsible to the owner for certification and progress payment, even though there is no direct contractual relationship between them. The ACEC's document, 'Industry Position on Design-build' states, "Some firms believe that there is conflict of interest inherent in this activity and should therefore exclude it from their duties, and others believe there is no more conflict in this activity than in the usual requirement to impartially discharge this duty while being paid by the owner."

Termination of services

The contract should also include clauses that allow the design professional to terminate services in case of non-payment without being in breach of contract.

Proposals

Design-build proposals should, among other items, include:

- Scope of work – to prevent conflict over price
- Services – detail about services to be provided
- Qualification – detailed information about proposed team members
- Approach – project phases and the steps necessary to complete them
- Project description – an outline specification, describing material, equipment and systems
- Financial – cost of works, as well as inclusions and exclusions
- Project time frame – with commencement and completion dates

How to evaluate a Design-build project

- Did the owner: describe the project requirements; state performance criteria; produce a detailed scope of work; write terms of reference?
- Does the Request for Proposal (RFP) indicate a knowledgeable owner?
If not, is there an advocate consultant?
- Did the owner prequalify a list of contractors?
- Does the contractor have a good track record on similar projects?
- Does the contractor have the financial capability for the project?
- For public projects, is there strong political support and funding in place?
- For private projects, can the owner afford it? Are there any environmental problems or political opposition?

(This is available as a *Checklist*.)

Alternative methods

Design-build is just one of the methods that can replace the design-bid-build method. This section looks at some of them.

Construction management

Construction management or "at-risk" construction management describes a situation in which the construction manager or CM, a general contractor, engages trade contractors or subcontractors, but also provides 'front-end' services.

In general, design professionals do not assume the at-risk construction manager role. General contractors typically have the experience to supervise the trades and the ability to obtain surety bonds when owners require them.

Even though CMs are involved in the design process, design professionals should remember that they have the sole responsibility for the completeness and adequacy of their designs. Before accepting value engineering or other suggestions for revisions, they should be prepared to accept legal responsibility for them.

Agency construction

Under agency management, or agency CM, construction managers perform purely advisory or professional services as representatives and agents of the project owner. Either a design professional or a general contractor can provide agency CM services. Typically, the agency CM has a direct agreement with the owner, independent of the design professional, contractor and any trades.

Design professionals in projects where the project owner has engaged an independent agency CM directly should be sure roles and responsibilities are clearly defined in their respective agreements with the project owner and in the general conditions of the construction contract.

These documents should clearly state who has the final authority over things like design decisions, shop drawing review, observation of construction, review of payment requisitions and communications with the contractor.

The design professional should be especially alert to the implications of an owner engaging a CM without first addressing the relationship in the professional agreement between the owner and the design professional.

There can be substantial rewards for design professionals who successfully expand their practices to include agency or at-risk CM projects, but they also introduce new sources of risk. Agency CM services bring the design professional greater liability exposure for safety, construction means and methods, constructibility, scheduling and cost-related issues.

Most professional liability insurance policies for design professionals cover claims that arise from a design professional's agency CM services. However, the policies generally do not cover claims for non-professional advice or services, which could include the actual performance of construction work by the construction manager or others directly retained by the construction manager.

Project management

Project management describes a range of consulting services, from project conception, through design and construction, to occupancy and facilities management. The design professional in the project manager role performs tasks associated with management of the design team, without engaging any construction contractors or performing any actual construction.

Owners contract directly with project managers to represent them and act as their agents. Typically, project managers provide a broader scope of services than they would under the traditional prime consultant role, including such tasks as: definition of program; development of conceptual design; and, pre-design phase, design phase, construction phase and post-construction phase services.

The project manager may act as an extension of the owner's staff, working on general management issues and program, site, scheduling and budget services.

Bridging

Bridging describes arrangements under which owners retain design professionals reporting directly to them, while another design professional is part of the Design-build entity. Risk management issues will vary depending on which party the design professional has reached an agreement with.

Design professional as consultant to owner

In this independent role under the Design-build approach, the design professional should clearly define the review of design or construction documents in the agreement with the client.

Under no circumstances should the design professional stamp or seal construction documents prepared by the design-builder.

If the independent design professional imposes design preferences or judgements on the design-builder, it may be construed as assuming some level of responsibility for the design.

The design professional should only review drawings or other submittals if required and it should only be done after the design-builder has reviewed and stamped them. It should be made clear that the review is only being done at the request of and for the benefit of the project owner.

Design professional as consultant to design-builder

Under this arrangement, the design-builder's design professional can assume a significant amount of liability for any deficiencies in requirements received from the owner's design professional. If the design-builder's design professional has any reservations about the requirements, they should not be incorporated into the final design and construction documents.

The design-builder's design professional should not expect the owner's design professional to assume any liability for errors, omissions or other deficiencies in the design and construction documents.

During construction, the design-builder's design professional should have the primary if not exclusive communicative and administrative role in the project.

The design-builder's design professional should not accept any directions from the owner's design professional that it considers ill-advised. The design-builder cannot avoid liability and responsibility by pointing to design changes or decisions imposed by the owner's design professional.

"Design growth"

In contractor-led, guaranteed maximum price Design-build projects, there is an increase in contractor claims for "design growth" as a result of design changes that take place between preliminary drawings and construction drawings.

In this situation, because it is not a joint venture, there is strong motivation for the contractor to sue the design professional for any added costs that appear between preliminary and final design. It is likely that the design professional has no control over how the contractor prepares the tender and no control over the use of any contingency fund set aside for design changes.

Inevitably, when the final 'ready for construction' drawings are produced, there are changes to the preliminary design. This wasn't a major problem in the traditional model, because the contractor had not yet tendered its price. In the Design-build model, however, the price has been fixed. The contractor cannot recover the costs of design changes from the owner so it may turn to the design consultant to upgrade the design, incurring extra cost.

Design changes between preliminary and construction drawings are almost certain to occur. It is up to the contractor who has the experience and knowledge to determine an adequate contingency fund. It is imperative that a written contract exist between the parties that limits the risk to the design consultant. As always with loss prevention techniques, communication is the key. The contractor and the design consultant must define their roles from the beginning and put that understanding in the contract.

Together, a contractor and a design firm submitted a tender for the construction of a bridge. Both parties knew that the selection of a particular construction technique would affect the tender quantities and pricing. The design consultant assumed that the contractor would take these factors into account. The contractor states that it relied on the design consultant for advice about the costs of the two design alternatives. Under the final detailed design, the project went over budget by several million dollars. The contractor brought a claim against the design consultant, alleging design growth.

There are steps that can be taken in order to minimise exposure to design growth claims. Design professionals should negotiate a written agreement that includes:

Price: The contractor is fully responsible for pricing and the tender.

Drawings: The contractor assumes full responsibility for interpretation of drawings.

Design: The contractor is aware that the preliminary design is subject to change.

Contingency: The design consultant is not recommending the contingency amount or rate.

Control: The design consultant retains joint control of the contingency fund.

International practice



PRACTICE MANAGEMENT

A practical guide to professional liability for Canadian design professionals

Introduction

Canadian engineering companies are a competitive force around the world. Working in more than 125 countries, Canadian firms now rank third in terms of engineering services exports and account for almost one-third of the industry's annual revenues. In five years, engineering services exports increased by more than 20 per cent.

This chapter of the Practice Management Guide looks at some of the risks associated with working abroad. While they can include headline-grabbing threats like kidnapping and extortion, firms are more likely to encounter more mundane hazards such as currency fluctuations and project delays.

While this section looks at the risks of working abroad, they should be weighed against the potential rewards of international practice – achieving a balance can lead to profitable and interesting projects in areas of the world where Canadian expertise can make a truly valuable contribution.

Financial

The biggest financial risk is failure to be paid. Over the years, certain countries have developed a reputation for never making a final payment. Many firms insist their contracts specify dispute resolution mechanisms and compulsory arbitration. International lending institutions are increasingly specifying contracts developed by FIDIC, the International Federation of Consulting Engineers, sometimes secured by a letter of credit or other financial instrument. As well, firms specify that clients pay interest on overdue accounts and, in the case of disputed items, set that amount aside and pay the rest of the invoice according to the contract.

Some issues only arise during the course of a project, when the firm is heavily committed. Taxation is one example. In an ideal case, a firm would have local tax-exempt status. Veteran executives advise firms to avoid “pay now, claim back later” taxation plans – repayment can be painfully slow.

Operating as a local entity requires strong local expertise and a major commitment. A local partnership can offer advantages, including expertise with an unfamiliar permitting process.

In Canada, the Export Development Corporation provides a range of credit risk insurance options for risks that may or may not be out of the client's control: insolvency, default, contract cancellation, inability to convert or transfer money, internal and external conflict, cancellation of permits and licenses, and outright refusal to pay by the client government.

“The money begins to flow after the contract is signed. This is the stage at which problems can begin to occur, because the sums of money involved are much greater than study or design fees.” Canadian engineer

Legal

Some client countries simply lack fully developed legal institutions – this can make judgments inherently subjective. The local judiciary may respond to outside pressures, like the failure of other projects in the country. In some cases, the legal system may be used against foreign companies to the benefit of their local partners; in effect, local partners benefit from the outside expertise and finance and then assume control of projects.

Problems can start when serious changes take place in clients' circumstances to cause an impasse. The project changes, in whole or in part, and the client inherits a change in costs in association with it. For example, a delay in construction means the loss of six months' refinery production or toll road revenues. One result can be lawsuits that include every party involved in the project. If the contractor cannot be reached by legal means, the consultant can be the "last one standing," or the only remaining party available to be sued for costs.

Once engaged in a project, consultants may want to expand the review process and engage local partners in verification of performance. Even where the legal system appears to create a clearly defined division of responsibilities between the consultant and the contractor, its actual application may be quite different. Whenever possible, the consultant should stipulate the use of a dispute resolution mechanism, either in Canada or in a third country whose legal system can be expected to render a fair and impartial judgment.

Many projects are still awarded on price, so difficulties can begin at the bidding stage, as consultants seek to avoid the legal costs of bid development. Partnerships with larger firms are one solution for smaller firms without in-house legal expertise.

FIDIC has developed some dispute adjudication mechanisms and a list of highly-qualified individuals who understand and are certified to deal with international documents. Some countries, including China, have created permanent dispute review boards. Australia has created contractual forums for major projects like the Olympics, as part of the implementation team. In effect, this means that disputes are resolved "internally" between members of the team. To avoid court action, international contracts can include clauses that call for escalation of disputes to different levels of arbitration if they are not solved by a certain time.

Professional

Conflict of interest

Conflict of interest, or perceived conflict of interest, has emerged as an obstacle to some international contracts. For many projects, international lending institutions are insisting there be no direct connection between the firm that recommends a project be undertaken and the firm that is selected for implementation. While the theoretical basis for these policies is understandable, there is a risk that firms will overstate the case in favour of a project in hopes of winning the business. In practical terms, it means that highly competent companies must create artificial divisions or even abandon business lines in order to remain qualified.

Safety standards

In the absence of safety standards or enforcement where standards do exist, consultants can be placed in a situation where the lack of safety equipment requires them to refuse work. Some clients have even asked Canadian engineers to remove personal equipment where they are unwilling to provide similar equipment for locally hired employees.

“What happens when the engineer decides to go ahead and do a final inspection in an elevated area with no handrails and then falls to his death? Will the family go ahead and sue anyway? Would they win?” Canadian engineer

Standard of care

From country to country, there can be considerable differences in the assignment of responsibilities to different professions and in the standard of care expected of each profession. In some situations, partnerships with local firms may be the most effective way to ensure compliance with local standards.

Integrity

In recent years, integrity issues have quickly risen to prominence around the world. In common with issues like environmental protection and human rights, change may have been overdue but it has come swiftly. Responding to a range of pressures, the pendulum has swung from a widespread acquiescence in the customs and practices of a host nation to zero tolerance for corrupt business practices. Clients in both the public and private sectors and agencies such as the Export Development Corporation and the Canadian International Development Agency are implementing internal and external codes of conduct.

Companies in many sectors have learned to their cost that there are new international standards for doing business. Under pressure to demonstrate value for money, international lending agencies are taking an active role in curbing corruption. Non-governmental organizations (NGOs) often try to discredit donor agencies, especially international financial institutions, by arguing that their money is misspent. Design firms can get caught up in controversies surrounding such NGO campaigns.

Consultants working outside their home countries are now expected to demonstrate compliance with the highest ethical standards in every aspect of their projects. Examples have been made and more may come. Dealings with local representatives and partners are under intense scrutiny to ensure that third parties are not being used to continue corrupt practices at third hand. Under today's practices, there needs to be a clear, verifiable process for the vetting, engagement and monitoring of third parties, to ensure compliance with the Canadian firm's stated ethical standards.

Many companies considering work abroad consult the Transparency International Corruption Perceptions Index that looks at perceptions of corruption among public officials and politicians in more than 100 countries. Their listings are drawn from independent polls and surveys of businesspeople, analysts and residents.

“There are certain countries where we refuse to work, due to their high level of corruption and the impossibility of doing business.” Canadian executive

Just as the concept of “quality” has been quantified and defined into various sets of standards, with verifiable metrics and compliance measures, so the concept of “business integrity” is rapidly growing into a business process.

Like quality, integrity is now the subject of worldwide standards development. The power of internationally recognized standards like the ISO series is their ability to provide third-party certification – a validation of working methods and processes. FIDIC has developed materials and guidelines for a Business Integrity Management System (BIMS) so firms can implement programs with some assurance that they will be internationally recognized.

“It’s all about risk management. And it’s pretty clear that integrity risk can quickly translate into financial risk.”

Canadian executive

“Could we have avoided our trouble? If there had been a Business Integrity Management System in place at the time, it would have dramatically lowered the chances of having this happen at all. The red flags would have gone up during due diligence and we could have started the right processes to keep everything in the clear. Were there other factors? Yes. Competing professionals were upset that we got the job, and they joined forces with influential international organizations to make a bad situation look worse.”

Canadian executive

However, no system is perfect. Local customs are powerful, and human behaviour is persistent. Like a Quality Management System, BIMS is designed to minimize the chance of a problem occurring and, should it lead to a court case or disciplinary hearing, to provide the foundation of an effective defence.

A consensus on ethical standards now exists and most parties agree on what needs to be done. The focus is now moving from that relatively easy “what” to the more difficult “how” of a specific country or project. FIDIC has done a great deal of work to provide firms with practical and timely advice on professional practice outside their home countries, including suggested contract language and agreements with local representatives.

The future of working abroad

International projects can be rewarding in many ways – financially, professionally and, not least, personally. The world needs skills that Canadian design professionals have to offer. Canadian design professionals abroad represent more than their own companies – they represent their profession, their country and the shared values of the developed world. And they are increasingly being asked to do more than build physical infrastructure. More and more, firms are being asked to demonstrate their commitment to technology transfer, capacity building and sustainable development, as well as complete their assignments on time and on budget. Local governments may not place the same value on education,

insurance, safety issues and contract enforcement. In some cases, clients simply aren’t interested and, in other cases, believe they cannot afford to overload “hard” project budgets with soft “costs.” Meanwhile, firms are increasingly being challenged to lead the way. Progress is being made in levelling the playing field for design firms as international development banks begin to harmonize their policies with respect to sustainability and capacity building, but Canadian firms that want to compete around the world will need to meet an expanding set of criteria that are themselves a work in progress.

The information contained herein is based on sources we believe to be reliable and should be understood to be general risk management and insurance information only. ENCON makes no representations or warranties, expressed or implied, concerning the accuracy of information contained herein or the financial condition, solvency, or application of policy wordings of insurers or reinsurers. The information is not intended to be taken as advice with respect to any individual situation and cannot be relied upon as such. Insureds should consult their insurance and legal advisors with respect to individual coverage issues.

Checklists



PRACTICE MANAGEMENT

A practical guide to professional liability for Canadian design professionals

Client Evaluation

CLIENT EVALUATION

- Is this a regular client? A first-time client? Is this client likely to need special attention?
- Does the client have experience with this type of project?
- Does the client have a reputation for litigation?
- Does the client have enough money?
- Is the client realistic about time and budget constraints?
- Does the client understand the professional nature of your services?
- Are there any special issues to be addressed in the professional services agreement?
- Does the client understand the difference between project budgeting and construction budgeting?
- Does the client link payments for services to events beyond your control?

WARNING SIGNALS THAT THE CLIENT MAY FILE A CLAIM

- Refuses advice about scope of services or level of effort.
- Will not negotiate fair terms and compensation.
- Insists on unrealistic performance standards like "highest" and "most economical".
- Insists on being indemnified but will not indemnify the design professional.
- Insists on services being performed to an unreasonable schedule.
- Refuses to (conscientiously) consider advice about contractor.
- Refuses to pay, especially when services are complete.

WHAT AN OWNER SHOULD UNDERSTAND

- The design professional provides design services and helps the owner get a project from the contractor that generally conforms to the consultant's design and specifications.
- The contractor is responsible for building the project, not the design professional. The consultant does not design or manufacture specified equipment and cannot guarantee them.
- The consultant must provide an appropriate level of field services to ensure that the contractor is building the project in general conformity with the consultant's design and specifications.
- The consultant and the consultant's employees cannot detect every minor deficiency in a project.
- If owners use their own personnel in the field rather than professionals' field services, contracts must reflect this accurately and relieve consultants of liability for such field review.
- There is no substitute for a complete geotechnical engineering mandate.
- Consultants can only be expected to provide estimates, rather than exact costings, because of factors beyond their control.

Project Evaluation

PROJECT EVALUATION

- Are the project budgets and construction budgets realistic?
- Are the deadlines realistic? Are they flexible?
- Will the construction be fast-tracked?
- What is the condition of the local economy?
- What laws, rules and regulations could have an impact on the project?
- What is the attitude of the government and the local community about this project?
- Is this a Design-build project?
- Is it reasonable to expect a profit from this job?
- Is this project being competitively bid? This method leads to more litigation than negotiated contracts.
- Is this a joint venture?
- Is this a school, hospital or condominium project? Again, these all attract more litigation than other projects.
- If this is a public project, has funding been approved?
- Do you understand the necessary scope of services for the project?
- Do you have the time?
- Do you have the design experience?
- Will there be unusual subconsultants or services to coordinate?
- Will the compensation for your services be adequate?

HOW TO EVALUATE A DESIGN-BUILD PROJECT

- Did the owner: describe the project requirements; state performance criteria; produce a detailed scope of work; write terms of reference?
- Does the Request for Proposal (RFP) indicate a knowledgeable owner?
If not, is there an advocate consultant?
- Did the owner prequalify a list of contractors?
- Does the contractor have a good track record on similar projects?
- Does the contractor have the financial capability for the project?
- For public projects, is there strong political support and funding in place?
- For private projects, can the owner afford it? Are there any environmental problems or political opposition?

SCHEDULING

- A realistic schedule will take into account possible sources of delay, including delays caused by client approval or building code officials. It is best to be conservative.
- Review client requirements carefully. If the client insists on project completion as soon as possible, do not shorten your normal schedule. The greater the pressure, the more prone you will be to errors and omissions.
- Establish a data bank of past jobs. The information should help identify activities associated with delays and people involved.

Contracts

Properly written contracts are absolutely essential to protect design professionals. This checklist is not exhaustive but it does touch on many important points. Legal advice is often warranted.

- Be sure the contract is written; a standard form issued by your association is preferable.
- Be very careful in modifying the standard forms. Consult your lawyer if you intend to use non-standard contract forms.
- Make sure you know the implications of the contract on your insurance coverage.
- Be familiar with the duties and responsibilities assigned to you by the contract between the owner and contractor.
- Any changes to the services to be performed should be in writing and made on the basis of an amendment or supplement to the original agreement with the client.
- The contract realistically and definitively describes the project and relates it to any feasibility study.
- The contract realistically defines the consultant's services, particularly field services.
- The contract is compatible with the contracts of other parties involved in the project. There should be no inconsistencies and no doubling up of duties and responsibilities.
- The contract should accurately define the consultant's responsibilities for commissioning and start up with realistic targets and an acknowledgement that there are many elements beyond the consultant's control.
- The contract should not include express warranties or guarantees that would nullify the consultant's professional liability coverage.
- The contract should include no indemnity clauses by which the consultant assumes others' liability. In law, consultants are responsible for their errors and omissions and those of their subconsultants and employees; they should not assume other liabilities through the contract.
- The contract should describe the client's requirements and the information and data, which the client will supply to the consultant.
- There should be provision for an equitable adjustment of fees if the owner suspends and later resumes the project. Is there a financial penalty for termination at the owner's convenience?
- Is there a non-payment clause? Can you stop work without liability for consequential or other damages?
- The contract should distinguish between Basic and Additional services and stipulate adequate remuneration in each case.
- The contract should allow you to control substitutions and limit the time you spend evaluating substitution requests to a reasonable amount.
- The contract should clearly state the limitations on your ability to predict construction costs.
- The agreement should clearly indicate that you are not responsible for how the contractor builds the project or manages safety on the site.
- Your responsibility for reviewing submittals should be limited to those required by the Construction Contract.
- It should be clear that Record Drawings are based, in large part, on information supplied by others for which you cannot be held responsible.
- The contract should cover transfer of ownership of your documents, and protect you against the consequences of misuse by others in the present and subsequent projects.

Agreements with Subconsultants

There should be written contracts with all subconsultants, preferably using standard forms. The agreements between the prime design professional and each of the independent consultants should describe in detail the separate duties and responsibilities of each. Because almost all design and construction projects involve multiple contracts, they should be similarly constructed to avoid conflicts and ambiguities.

The following points of coordination deserve attention:

- quality control requirements and responsibilities
- design criteria and standards, drawing or CADD file format
- schedule requirements
- budget requirements and any construction cost limitations
- terms and timing of payment
- use and ownership of documents
- terms and provisions for termination
- dispute resolution provisions
- insurance requirements, including certificates of insurance
- limitation of liability provisions

Cost Management/ Change Orders

COST MANAGEMENT

- Be conservative. Prepare accurate area and material projections and use cost data that is both current and local.
- Prepare cost estimates using as complete a set of drawings as possible.
- Get accurate information from manufacturers and suppliers about the costs of new materials or systems. Get a guarantee that the quoted price will hold.
- Make sure the client understands that you are only providing an "opinion" about the possible costs, not an exact "estimate" that can be used as a reliable maximum figure. Be sure the client understands the difference.
- Define cost estimates in a written contract. Ambiguities about the cost estimate in a written agreement could be interpreted to mean a "guaranteed maximum" amount.
- If the client insists on a cost ceiling for budgeting purposes, suggest contracting directly with a professional cost estimator.
- After the project is complete, compare actual costs with projected costs to evaluate your proficiency.

CHANGE ORDERS

- Construction contracts should contain provisions for preparing and executing documentation related to changes.
- Use standard change order forms.
- Use the same care in preparing change orders as was taken in preparing the original documents.
- The change order should only be initiated after the design professional has considered its necessity, propriety, alternate methods of accomplishing the work, mode of compensation, effect on contract time and an estimate of additional costs.
- If the time needed to prepare drawings and specifications related to changes affects construction scheduling and costs, inform the contractor and owner immediately.
- Document the reasons for changes.
- Communicate all changes and the reasons for them to the contractor and the owner.
- Do not issue any change orders until they are approved in writing by the owner.
- Document all telephone calls about changes.
- File correspondence so it remains accessible.
- The owner must be informed if a change order involves additional compensation to the contractor.
- When contractors propose equipment substitutions, they must obtain approvals from all regulatory agencies where warranted.
- Make a reproducible file copy of the original. It is essential to be able to trace changes on design drawings after the contract is signed.
- An in-house record of all design directives and the history of a drawing are important in controlling the cost of a job and controlling future claims. It is important that the history of changes be traceable through drawing revision blocks and design directives.

Written Records

Records should be kept indefinitely, because there is no time limit on the design consultant's professional liability. There should be a formal system of record-keeping on each project. When beginning a new project, it is good practice to check the contract to see what documentation is required. Prepare a checklist of all contract notice and record retention requirements. The records should include, at a minimum, the following material:

- Literature from manufacturers of materials, especially new ones, and any correspondence with the manufacturer about those materials.
- Copies of all manufacturers' warranties.
- A résumé of every job site meeting and the key points that were discussed.
- A copy of every memo sent to other parties involved in construction.
- All documentation related to change orders and claims for extras.
- A résumé of all oral advice given to the owner and to the contractor including notations of all telephone conversations.
- Accurate records of all advice given by the consultant to the contractor or owner or both, with written confirmation of their rejection and the consultant's opinion of the inherent risk.
- Correspondence with contractor, both sent and received.
- A list of all deficiencies discovered by the consultant's field personnel and the steps taken to oversee their correction.
- A description of the circumstances surrounding all substitutions of materials approved by the consultant and the owner including any written warnings of possible problems or risks as a result of such substitutions.
- A copy of all correspondence (letters or memos) sent to the owner, as notification of the consultant's inability to verify certain aspects of the construction which should have been seen but were covered up at the time of the visit.
- Complete reports on all site visits.
- A description of all circumstances surrounding instances of lack of cooperation on the part of any other party.
- Submittal logs.
- Close-out documentation.
- Updated and revised plans and specifications, including a running account of all known revisions and changes made to the original plans and specifications.
- A complete set of all submitted shop drawings and other pertinent correspondence and data.
- A complete set of progress schedules and updates.
- A daily job site log which includes:
 - The author's name
 - Relative stage of completion
 - The date and time
 - Employees on the job and their responsibilities.
 - Weather conditions
 - Equipment on the job
- Material delivered to the site and its condition.
- Any visitors or observers out of the ordinary.
- Any problems encountered during the reporting period.
- Photographs to document progress or failures/deficiencies.
- Any change to your mandate must be documented, including its impact on fees.

Specifications

Inform all project personnel about the proposed content of the specifications while the drawings are being prepared.

- Technical specifications must be carefully coordinated with drawings.
- Ambiguous terminology is the biggest problem in specification writing.
 - Be clear and concise, using adjectives and adverbs with only one meaning.
 - Make sure grammar and punctuation are correct.
 - Avoid local jargon.
 - Avoid vague terminology, like "etc."
 - Use the imperative; use words like "do" and "make" rather than "should be" or "could".
 - Limit each paragraph to one topic.
- Begin preparing the specifications at the same time as the working drawings. They will be better coordinated.
- Select products carefully. The specifications writer is responsible for seeing that the specified products are suitable for their intended use. Several court decisions have found design professionals liable when they failed to properly research products which later proved unsuitable for their intended purpose.
 - Use standard specifications whenever possible.
 - Where suitable, use successful specifications from a previous job.
 - Research the manufacturer's reputation for on-time delivery and reputation for honouring warranties.
 - Research all technical data on the product. Do not rely on brochures.
 - Communicate your intentions for the product to the potential supplier and ask for comments in writing.
 - Ask for a technical representative to be on-site for installation when using new or unproven products or equipment.
 - Avoid the terminology "or equal". Retain sole responsibility for accepting or rejecting any proposed substitutes.
- Check specifications thoroughly. Omitting items from specifications often leads to claims from contractors for "extras".
 - Ensure all areas depicted in the working drawings are addressed in the specifications.
 - Review the specifications for code violations.
 - Review the "Scope of Work" and "Work Not Included In the Section" subsections to ensure that all work has been specified and work assignments have been clarified.
- The specification writer should be a construction specialist with field experience. Other important qualifications can include formal training in engineering or architecture, and knowledge of contract and construction law.

Certification and Field Services

Do not waive any contract language by interpreting, evaluating or in any way accepting total or partial responsibility for the contractor's safety program. The CCDC, CCAC and ACEC go to great lengths to ensure that their contract forms are comprehensive. They should be used whenever possible.

- Make sure the client understands the purpose of your observations – to determine whether the contractor is constructing the project in general conformity with the overall design concept/intent.
- Make sure the client understands that your review and submittal of partial and final payment applications implies that, in your best judgement, the certified work has been completed and not that the work absolutely conforms to drawings and specifications.
- Construction observations should be documented using a standard format, including all dates and times of observation. The use of photographs to document unusual events is strongly recommended.
- Make sure the field services are thorough enough to identify workmanship that is patently faulty. Courts have found design professionals negligent when contractors' unauthorised departures from drawings and specifications should have been obvious to them.
- The construction administrator should not interpret any drawings or specifications, only clarify them. Ruling on a certain ambiguity may imply negligence in their preparation.
- If, in the course of field observations, you note hazards or discrepancies, inform the contractor's superintendent in writing. Copies of this notice should be sent to the owner and placed in the job file. Many design professionals use standardised forms to speed communications.
- Do not assume the responsibility of stopping construction. Instead, advise the owner to order the work stopped, unless there is a danger of imminent harm to individuals on the project.
- When certifying contractors' work for progress payments:
 - Certify only to those parties to whom you have a contractual obligation. Under no circumstances certify the construction to any other party. Sureties and lending institutions may send out questionnaires for you to complete. You do not owe them certification and you could be liable for an improper certification that resulted in a loss.
 - Qualify certification language with phrases like "to the best of our knowledge". Certification language should include the adjective "general" or "substantial" so as not to indicate absoluteness.
 - Make sure the contractor has not "front-end loaded" payment requests and that all work for which payment has been requested has been completed as represented.
 - Require evidence that all subcontractors and suppliers have been paid and all lien waivers have been filed with respect to all certifications for final payment.
 - Do not cause undue delay in performing any certification.

Working Drawings

- Ensure that the drafts person has sufficient field experience to understand how to graphically depict design details.
- When a drawing segment is reviewed and changed, new prints should be sent to all concerned parties immediately.
- Unless applicable to a particular drawing, all explanatory verbiage should be included in the specifications.
- There should be language in the margin of the drawings, to the effect that their purpose is only to depict graphically the general nature of the work.
- Someone not involved in the project should check drawings and specifications at the same time. Checking should be carried out to verify that various design elements are accurate.
 - The dimensions and details are correct on all drawings
 - All drawings are neat, legible and properly cross referenced
 - All symbols and abbreviations are clearly explained
 - A standard format has been used and each discipline has separate drawings
 - Sufficient space is provided in the architectural drawings to depict the mechanical and electrical equipment to be installed
 - All equipment depicted in the mechanical drawings corresponds to the architectural drawings
- There is no conflict between the drawings and specifications.

Claims

The contractor is in financial difficulty

When it is obvious that the contractor is in trouble, and there is a strong possibility that there will be a claim for extras, it's time to strengthen the alliance with the owner and lay the groundwork for a common defence.

The owner is in financial difficulty

When owners restrict field services to save money, it is appropriate to warn them in writing that it is no longer possible to sign unqualified certificates because the design professional cannot be responsible for what is going on in the field. If cheap materials are substituted, again, owners should be warned in writing. (Remember – design professionals are not just liable to owners. In tort, they are liable to the world at large.) When issues of safety arise, it is the professional's duty to stop the project and report the situation to the proper authorities.

Unexpected site conditions

Every time contractors report an unforeseen condition, owners should be briefed. The consultant should force all parties to discuss the situation and agree on a course of action. The worst thing design professionals can do is allow work to continue with a promise to discuss extras later.

Arguments with contractor about quality

Where the contract gives the design professional the authority to reject improper work, they should do so, with the owner's full knowledge of the situation. The consultant should not assume responsibility for the situation and 'protect' the owner from confronting the responsible party. An owner looking at an unexpected statement of claim from a contractor will often drag the consultant into the lawsuit as a third party.

Owner must be sued for fees

There are only two reasons for non-payment; either the owner is out of money, or the owner is unsatisfied with the design professional's services. In either case, it is worth considering the possible or probable consequences of a lawsuit against the owner. Almost every time a consultant sues an owner, the owner immediately files a counter-suit, forcing the consultant to spend hours of time fighting the case. Often the cost to collect unpaid fees in terms of the time and trouble of following through with a lawsuit greatly exceeds the value of the unpaid fees.

How to react when a claim is made

- Keep calm and act in a professional manner. Avoid any immediate or emotional reactions: counter-accusations are unproductive and could well make the situation worse.
- Report all relevant circumstances to the insurer, and make sure members of your firm do not take any action without discussing the implications with the insurance company.
- Avoid any admission of responsibility, even if you have made an error.
- Keep communicating with all parties in a professional and business-like manner.
- If work is continuing on the project, try to maintain a team environment, based on everyone's mutual interest in successfully completing the job.
- Assemble and organise all the necessary documentation.