Basic Contract Law for Civil Engineers

Civil engineers and builders contract with owners to perform studies and designs and to undertake construction. Engineers should be aware of the basic elements of, and critical issues involved in, engineering and construction contracts.

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THE LEGAL relationship between any two parties in a business transaction can be narrowed to *contract* law and *tort* law. Contract law deals with agreements between parties, who are competent under the law, that give mutual promises or consideration to one another for a lawful purpose. Tort law deals with injury or damage caused to persons or property by another party who is under a *duty of care.* The injury or damage is directly tied to the duty of care. A tort arises if the party's breaching of the duty of care results in injury or damage.

These two short definitions have engendered thousands of volumes of case reports and law texts. The performance of work pursuant to a contract exposes all parties involved to potential liability not only for breach of that contract, but also for the commission of torts (breaches of the duty of care) that occur during the performance of the contract.

The two, out of many, aspects of the law that principally apply to contract interpretation are *Common Law* and the *Uniform Commercial Code (UCC).* These bodies of law are applicable in all fifty states and the District of Columbia.

Contracts dealing with labor or services, and contracts dealing with real property (land and attachments to land), are interpreted under Common Law theories. With its roots in English law, Common Law has been established over time through the *common* understanding of rights and remedies as enforced and modified by court decisions.

Contracts for the sale of goods and materials (when sold by a dealer normally in the business of selling those goods and materials) are governed by the UCC, a body of commercial law established by formal legislative action. If the dealer were to sell an item outside the scope of his inventory, such as an electrical supplier selling his cash register, that sale would not be governed by the UCC, but would fall under Common Law.

In the case of a contract for the supply and erection of steel by a steel fabricator, the UCC would be applied if the cost of erection (which is a service) is incidental to the cost of

material. The contract would fall under Common Law if the cost of material is incidental to the erection cost. Conceivably, both bodies of law could come into play if the cost of material and service are nearly equal.

Negotiating & Forming the Contract

Under the theories of contract law, an agreement must be mutual — meaning that both parties agree to the terms, with neither party acting under any other compulsion than normal market forces — and the actions contemplated under the agreement are permitted by law in the jurisdiction(s) in which the contract is to be performed.

A contract is formed by an *offer* and an *acceptance.* An offer to contract is usually defined as containing sufficient terms so that mere acquiescence to those terms would form a contract. Thus, if a key term *dealing with the performance of work or goods* is omitted from a purported offer or acceptance, it may not be construed as a contract. However, courts in many jurisdictions have decided that the omission of a price that may be determined from the marketplace cannot be construed as the omission of a pertinent term of a contract.

Confusion often arises between an offer to do business (which is a mere solicitation or advertisement to others) and an *offer to contract* which is directed toward the acceptance and formation of a contract. A request-for-proposal or bid solicitation should be carefully worded to avoid ambiguity. If an offer to do business is inappropriately worded, it may result in a contract being formed on the receipt of either a single bid, or on receipt of the lowest bid. A solicitation simply stating that a contract will be awarded to the lowest bidder will commit the solicitor to a contract even if only one bid is received. By appropriately wording the solicitation and the instructions provided to the bidders, the solicitor can reserve the right to award, or not to award, a contract depending on a calculated decision after the bids are received.

If the solicitation or offer to do business is appropriately worded, a responsive bid or quote is then an offer to contract. However, this quote may not completely reflect the terms requested in the solicitation. Frequently, the solicitation will request the ideal circumstances under which a buyer or owner wishes to do business. Conversely, in a commercial bid, the bidder may submit the terms under which it ideally wishes to do business with the purchaser.

Each party attempts to limit its own liability and shift the burden of potential losses to the other with neither party expecting the terms used to remain unchanged. Though the solicitation may stipulate that only those terms contained in the solicitation will govern the contract once it is awarded, the bidder frequently will respond by stating that only its commercial terms will be totally acceptable and will govern any contract into which it enters. Neither party should risk proceeding with the contract or work even if a statement exists that only the terms contained in that party's documents will govern the contract. This situation is commonly referred to as the *battle of forms.* At this point negotiations are required.

A key part of negotiations is that all terms of the contract should be carefully compared to determine the impact of the *inclusion* or the *omission* of each and every term in the solicitation and in the bid. This examination requires that each party carefully evaluate what risks are acceptable and what the costs of each risk are based on their probability of occurring. Every aspect of conflict should be resolved to preclude either party initiating court intervention to interpret the contract against the interests of the other.

A simple example of terms that require negotiation would be in an owner/engineer contract where the owner may request an engineer to undertake liability for failure in construction techniques that use the engineer's designs. The engineer, on the other hand, would propose to limit liability to failures that result from structural design. Conflict resolution can be facilitated by naming the purposes of conflicting clauses in a spreadsheet manner. In this way they may be clearly viewed and assigned values. These values need not be actual cash amounts, but may be point values that reflect the clause's qualitative desirability or consequence to the

party. In this way, ideal, acceptable and unacceptable terms can be established. With such an evaluation of terms for each contract clause, each party can then sit down and negotiate the contract clause by clause. In addition, this evaluation aids each party in determining the values each term possesses in relation to other terms of the contract. In the example above, the engineer may "trade" the increased liability for a more relaxed schedule or a tighter payment schedule. In negotiation, the keys are determining clause values *and* the overall relationship of the clauses.

The Written Contract

Though the law may not specifically require a written contract, in some cases there is the requirement of a *writing* to document the agreement. It is important to know that the requirement of a writing does not mean it must be a single document signed by both parties. The writing may be an accumulation of documents or correspondence, including letters, memoranda, signed minutes of meetings, drawings, solicitations, quotes, purchase orders, *etc.* One, or a combination of any of these, when signed by the party who is being charged with the breach of contract, may be adequate to prove the existence of a contract.

In the theory of the Statute of Frauds, a *writing* is necessary to prove the existence of a contract when there is a likelihood of a fraud without the written contract. A contract comes within the scope of the Statute of Frauds when one of the following conditions is present:

- the value of the material supplied exceeds $500;
- the contract is not to be completed within one year; or,
- the contract is to guarantee the debt of another.

Though no written contract may exist for any of the conditions mentioned above, circumstances such as partial performance or the theory of law known as *quantum meruit* (that which is deserved), or unjust enrichment, may nevertheless allow recovery by a party damaged by a purported breach of contract. Unjust enrichment arises when there is no contractual relationship established due to the lack of a necessary term and one party receives a benefit as the consequence of performance by the second party based on some action, or inaction, of the first party. The second party, in this instance, may receive compensation from the first party to avoid unjust enrichment.

A contract may ultimately be formed by the last piece of correspondence that discusses terms not in conflict with anything previously proposed. Under current law in many jurisdictions, it is conceivable that additional contract terms that do not conflict with each other or with previously stated contract terms, could be construed as acceptable to the parties if those terms were not previously addressed in the contract. Thus, correspondence between the parties could form the contract before one party believes that a full agreement on terms has been reached.

Business Structure & Liability

The structure of a business will ultimately determine the extent of liability under a contract as well as the liability for torts committed by employees and agents in the pursuit of the contract. Organizations by which civil engineers do business are usually structured as sole proprietorships, partnerships or corporations. Each form of doing business has its attendant risks and advantages. No form is entirely risk-free and each serves a particular purpose.

A *sole proprietorship* (operating under an individual's name or under an assumed business name) is the least costly enterprise to form. If the business is operated with an assumed business name, a business certificate generally must be filed in the city or town where the business resides. Sole proprietor operation is best suited to a very low risk, low liability type of business where the prime loss may be only that of one's reputation — *i.e.*, work that does not involve assuming any personal liability. Thus, teaching a continuing education course or providing technical support services to a company that has sufficient insurance to protect against liability and includes that protection to the sole proprietor

by contract, does not require forming an "umbrella" corporation. Performing professional services where the professional is the sole person liable for the work, where sufficient insurance is obtained to protect against most risk of loss *and* where personal assets are protected by other shelters (not tax shelters) may then justify the risk of operating without the protection of a corporation.

A *partnership* is defined as two or more individuals joining in a common business venture, sharing profits and losses. For the purposes of liability, each partner is an agent of the partnership and of any other partner involved in the partnership. A partnership does open up a second area of liability and it should be used only where there is no more liability than that which would be readily acceptable to a sole proprietor. If a partner acting for the purposes of the partnership either breaches a contract or commits a tort not only is the active partner who committed the breach and/or tort liable, but the partnership and the other individual partners are also liable. If the assets of the partnership are inadequate to cover the liability, the assets of all the partners are also exposed to cover the damages or liability.

However, if a partner commits a tort or a breach of contract in an activity that does not relate to the partnership business or its conduct, then liability does not extend to the partnership or to any other partner. For example, if a partner returning from a family event in the family car is involved in an automobile accident, the liability for injuries suffered is not attributable to the partnership. On the other hand, if a partner is driving in the family car and is involved in an accident while on his/her way to the soils laboratory to pick up the latest analysis for a project being undertaken by the partnership, any liability for damages suffered will extend to the partnership even if it was not the partner's usual job to run such errands. If the partnership assets are inadequate to cover the damages, the other partner(s) becomes liable and their personal assets are exposed for such damages.

A *corporation* is an entity chartered under the laws of the state in which it resides. Insofar as the laws of the state are concerned, it becomes a person. A corporation may do business under its own name, with an officer of the corporation signing documents on behalf of the corporation using the corporate name. The corporation, rather than the individual, is committed to the conduct of the business. In addition, a corporation is an entity separate from its shareholders. If the corporation breaches a contract or commits a tort, the assets of the corporation are exposed to liability, not those of the individual shareholders, officers or employees.

Contractually, it is possible to commit a second contracting party to look only to the corporation for remedy for torts that arise from the performance of the contract. If an employee of a corporation, who also happens to be a shareholder and an officer of the corporation, commits a tort that results in injury to a third party, the person committing the tort is liable and the corporation itself may be liable as well. That third party is not bound to seek a remedy only from the corporation, since it is impossible to commit a third party unrelated to the contract in the same manner. For example, if an individual is both president and shareholder of a corporation as well as an engineer employed by the corporation, then as a shareholder the engineer is generally isolated from liability if the cause of liability is another employee. If the engineer negligently performs a service on behalf of the corporation that results in damage to a third party, not only is the corporation liable but the engineer is also personally liable. However, this personal liability may be shifted to the corporation by contract. Although a corporation does not limit the individual's liability totally as many people mistakenly believe, it remains by far the best vehicle by which to do business and limit liability.

Liability Under Tort

When negotiating and entering into a contract, protections against tort liability are well advised. Under the theory of tort law that applies virtually throughout the United States and to some extent in many foreign countries, any *tortfeasor* (a person carelessly causing

injury or damage) is liable to the party to whom the injury or damage is caused. That damage may be limited to the cost of repairing the damage or the medical expenses for injury. It can also extend to lost income (for as much as a life time) and to punitive damages.

Several jurisdictions prohibit the shifting by contract of tort liability for one's own torts to another party. If an owner contracts with an engineer to perform specific services and the engineer commits a tort while in the pursuit of the owner's goals of the contract and thereby injures a third party, those several states will not allow a contract requiring that the owner indemnify and hold harmless the engineer. Those jurisdictions have determined that only an insurance carrier may enter into such an indemnification contract. However, if the engineer did not commit a tort and the engineer's liability arises only from the negligence of the owner or a third party, most jurisdictions will permit the engineer to be indemnified if such indemnification is provided for contractually.

Liability under tort is further complicated by consequences of the tort that though foreseeable, are remote. Black's Law Dictionary defines *consequential damages* as "damage which is not directly or immediately flowing from the act but only from the consequences of the act." If a building collapses, the costs of replacing the building are deemed direct damages; the loss of rental income by the building's owner is considered to be a consequential damage. Limitations of consequential and indirect damages set by parties in a contract are acceptable under the laws of most jurisdictions. In a professional contract, clauses may be included to limit allowable damage claims to the cost of performing the professional work, since an error in professional work could result in damages that far outweigh the cost of the work itself. When an owner accepts a limitation on consequential damages, the owner may potentially increase his/her long-term risk associated with the contract. This risk, however, is insurable.

Liability for Malpractice

Professional liability is a tort that has developed from Common Law. Engineers who claim the right to be called professionals are so licensed in most jurisdictions. However, that right subjects them to liability for *malpractice.* Effectively, malpractice means negligence in not observing professional standards. An engineer holding himself or herself out to be knowledgeable in a given field is legally held to the standards of the *average* engineer. This viewpoint raises some interesting questions:

> May an engineer who holds himself out to be superior, be held to the standards of the superior engineer? May an engineer then claim, "I was only a C student and therefore, I should only be held to the standards of a C student."

Generally, if an engineer errs or does not conform to the standards in the industry, he or she can be found liable for malpractice. That individual is then liable for all damage or injury caused as a result of his/her negligence. To be liable for engineering malpractice, it must be demonstrated that the engineer:

- held himself/herself out to be a professional skilled in specific sciences such as civil engineering, or subcategories such as structural engineering;
- did not perform in accordance with the standards of the average knowledge of a person with that particular skill; and,
- that damage or injury resulted from not conforming to that standard.

Though acts of God are usually considered defenses, those acts that are foreseeable, and are known to occur on a fairly predictable schedule, do not allow the engineer to escape liability. For example, in designing a structure in the greater Boston area, it is presumed that, building codes notwithstanding, the engineer would have to consider the possibility of hurricanes. Failure to do so would likely render the engineer liable for those damages or injuries resulting from the hurricane unless, of course, the owner had accepted contract clauses that limited allowable damage claims, thus shielding the engineer from liability.

Sample Clauses

No standard form contract should be signed *as is* simply because it is referred to as a *standard* form. The so-called standard forms are basic contracts with clauses that fit many, but not all circumstances. It is usually necessary to remove or modify some of those contract clauses or include other clauses on subjects that are not addressed. Some specific issues of major clauses of representative standard forms are discussed.

Payment/Milestones. If the terms of payment are not adequately addressed in a contract, it frequently becomes a matter of dispute as to when payments should be made or, in fact, what interim payments represent insofar as specific work is concerned. The following clause assures that payment will be made against specific predetermined milestones:

> *As of the first day of each month, the Engineer shall determine the value of the work completed based on milestones attained in accordance with the Schedule of the Work. Within ten (10) days after said date, 90% of the value so determined, less previous payments made to the Engineer and less such sums as the Purchaser may be entitled to retain or deduct under the provisions of the said Contract shall be paid by the Purchaser on account of the contract price. The remaining 10% shall be retained by the Purchaser until the expiration of 30 days after substantial completion of the Engineer's work.*

Time for Performance. The law has a very narrow interpretation of dates in a contract. Dates are generally considered for scheduling purposes only. Completion reasonably close to the scheduled dates is considered satisfactory under contract law, even if the dates are critical. Thus, the clause below is virtually necessary to assure completion at specific times:

> *Time is of the essence of this contract, including all dates established with reference to milestones and completion of the work.*

However, the inclusion of this clause subjects the parties to an absolute interpretation: if the date is not met exactly, it is then deemed to be a breach of contract. Therefore, the time schedule for any milestone and associated payment should generally be bracketed, be given relative dates (*e.g.*, completion by September 10th, but in no event later than September 15th unless not meeting the deadline is excusable elsewhere in the contract) or have stated contingencies.

Waiver of Consequential Damages. To obtain a full waiver of consequential damages, the clause below is effective:

> *Notwithstanding anything to the contrary in this contract, neither party shall have the right of recourse to the other party for consequential damages, irrespective of any forewarning of the potential of said consequential damages arising.*

In the absence of such a waiver, both parties would be liable for consequential damages. Note that this clause is effective even in jurisdictions where it is necessary to be forewarned of the potential of consequential damages before liability can be attributed.

Force Majeure. The following clause refers to forces beyond the control of either party:

> *Neither party shall be liable to the other party for any loss of time as a result of acts of God, acts of violence, strikes, insurrection, acts of terrorism, labor shortages, acts of any governmental body or agency, or failure of the action of any governmental body or agency, or any other occurrence beyond the reasonable control of the parties.*

To allow for the occurrence of *force majeure* without penalty for breaching the contract, it is necessary to address the issue specifically. Some jurisdictions will allow for acts of God, but most require other contingencies to be included in the contract. Note that this sample standard clause only provides for an extension of time; it does not address any additional costs associated with the extra time. If these additional costs are a consideration, they must be separately addressed in the contract.

A Sample Case

Consider the following hypothetical case that is a composite developed from arbitration

experience:

Widget, Inc., bought an automatic widget machine that the owner located. The machine was a resale from a defunct plant. The widget machine was totally computer-controlled by a new device, with which the owner had no familiarity. He was, however, assured by the seller that the machine would perform at the rate of 100 widgets per hour as desired by the owner.

A civil engineer, representing C.E., Inc., was requested to view the facility where the widget machine was to be installed, the location where the machine was currently in place and to provide an estimate for the owner on the cost of disassembling the machine, transporting it and reassembling it at the Widget facility. The engineer estimated that it would cost $200,000 if the owner provided in-house technicians to assist in the erection process at the Widget plant.

The owner asked the engineer if he had ever seen a machine such as the one he was buying. The engineer replied that he had. The owner then asked the engineer if he felt it would do the job. The engineer said that it appeared that it would. The engineer also advised the owner that he was unable to guarantee the cost of the transfer — *i.e.*, the engineer would only work on a cost-plus basis. Though the owner protested, he accepted the engineer's estimate as being reasonable. The engineer proceeded with the work.

On installation, Widget was unable to provide the necessary technical services. The engineer arranged to have all the work performed and rendered an invoice for $400,000 for the installation.

The owner, in attempting to operate the machine, found that it would only produce at the rate of 50 widgets per hour. The only way he could get it to produce 100 widgets per hour was by changing the feeder system, which would have required him to change the entire system in his plant.

The matter came before arbitration on a claim that C.E., Inc., breached its contract based on the charge that the engineer provided a warranty when he represented that the machine would probably work at the rate of 100 per hour. The contract included an arbitration clause that specifically stated that all matters arising out of, or connected with, the support of equipment would be resolved by arbitration.

When Widget solicited a bid from C.E., Inc., it was an offer to do business and not an offer to contract even though it was solicited from a single party. In addition, it was not an offer to contract because no terms were stated under which the bid was solicited. The offer was a simple request for a quotation for specific services, nothing more. The proposal to do business at a specific cost basis then became the offer to contract. The acceptance was the order to proceed with the work. Thus, a contract was formed with many terms omitted.

Specifically, the cost was provided as an estimate and not as a firm fixed price. Furthermore, there was no limitation on the cost; *i.e.*, one party wanted the cost not to exceed a specific amount and the second party wanted a cost-plus contract. That contract term remained unresolved. Since the contract was specifically for services, it was not governed by the UCC but rather by Common Law. In this case, a valid contract was formed without a contract price.

In addition, the sale of the product was not governed by the UCC because it was sold by a company no longer doing business as part of its plant operating equipment and not from its inventory. The representation made by the seller that it would perform at a rate of 100 widgets per hour was undoubtedly correct. However, no consideration was given to the conditions under which it would provide 100 widgets per hour. At no time did anyone request, nor did the seller offer, the manufacturer's handbook or technical specifications. It was undoubtedly prepared with the equipment when it was originally sold to the original owner.

Since the engineer and the owner were both representing their respective corporations, neither is personally liable as long as

there is no fraud or specific negligence by either party. Had the engineer been a consultant called in to personally advise Widget regarding the capabilities of the equipment and had the equipment failed to perform as represented, the engineer very well may have personally assumed all liabilities for his failure to determine the correct operation of the equipment.

Tort liability can occur as a result of any contract. It may also be addressed in the body of the contract to determine beforehand where the liabilities will lie. Had the individuals employed by the owner through his company been involved in the erection process and been injured, a question would have arisen as to who was responsible for the injury and who specifically was the employer. This situation provides an example of the joint-employment enterprise where an employee could be considered an employee of either, or both companies. If the person was injured as an employee, the person would then be limited to a Workman's Compensation claim. If the injury was sustained as a non-employee of one company, the person would be able to sue in court that company, but not the company for which he was considered to be an employee.

In addition, if any worker was injured in the erection process as a result of an undisclosed effect of which the machine's original owner was aware, the seller then could have been held liable for the injury. Widget's owner may also have been able to maintain better control over his costs had he negotiated progress payments based on milestones. By using such a schedule of payments, he would have been able to control the expenses and supported the work where necessary by using his own employees as prices escalated. Time delays, which apparently were the cause of many of the excessive costs, were the direct consequence of the engineer not putting people on the job in a timely fashion since he assumed that the owner would have people available. Had there been a "time is of the essence" clause in the contract tied to milestones, the parties could have dealt with scheduling issues in a timely manner and controlled costs. If the time delay was due to acts beyond the reasonable control of the parties, such as a hurricane, earthquake or failure to obtain the necessary permits, and there were a time clause without a *force majeure* clause, then the performing party would still have been required to perform timely with no reasonable escape.

The only thing the parties involved in this sample case did that was consistent with good office policy dealing with a construction contract, was to include an arbitration clause for speedy and less costly resolution. A case such as this would have probably been resolved within six months of filing of the claim. If the engineer were to demonstrate to the arbitrators in this case that the costs incurred were reasonable and necessary to the proper performance of his services and within the scope of work, it would be likely that he would be awarded full reimbursement for services rendered.

Conclusion

Civil engineering and construction are endeavors with unusual risk. Every contract should be carefully tailored to minimize the risks associated with payment for work performed and to minimize liability exposure. Well prepared contracts will benefit both contracting parties and lessen the likelihood of costly litigation. In normal business conduct particular attention should be given to the wording of solicitations to bid, the wording of bid responses, and close examination of the values and costs of each contract term.

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