I. Understanding Texas Liability Law

-A. Introduction

Engineering has a long history. Ancient Egypt constructed obelisks, tombs, and pyramids 4,000 years ago. The level of engineering required for such works is still impressive. Roman engineers perfected arch construction, and built aqueducts, tunnels, and roads more than 2,000 years ago, many of which are still in use in Italy and other parts of Europe. Civil engineering came to be so called about 1750, when the English engineer, John Smeaton, began to designate his work as "civil" to distinguish it from "military" engineering.

In the United States, engineering dates to the founding of the republic. The United States Military Academy at West Point, the first engineering college, was established in 1802. Four of the five founder engineering societies date to the 19th century. The American Society of Civil Engineers was founded in 1852, while the American Institute of Mining, Metallurgical, and Petroleum Engineers dates to 1871. The American Society of Mechanical Engineers was founded in 1880. The American Institute of Electrical Engineers was founded in 1884, while the American Institute of Chemical Engineers dates to 1908.

Engineering has been defined in many ways. In 1958, the Engineers' Council for Professional Development, a permanent conference of eight national engineering societies, issued an updated and more accurate definition of engineering:

> Engineering is a profession in which a knowledge of the mathematical and physical sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the progressive well-being of mankind.

Members of the engineering profession in Texas must be registered with the Texas Board of Professional Engineers ("Board"), and are regulated by the Texas Engineering Practice Act (Texas Occupations Code §§1001.101, et seq. Violations of the Engineering Practice Act, or the Board's Rules can subject an engineer to liability in a civil suit, or in an administrative proceeding. The Engineering Practice Act defines the "practice of engineering" broadly as:

> [T]he performance of or an offer or attempt to perform any public or private service or creative work, the adequate performance of which requires engineering education, training, and experience in applying special knowledge or judgment of the mathematical, physical, or engineering sciences to that service or creative work.

Texas Occupations Code §1001.103(b).

The Engineering Practice Act indicates that the practice of engineering includes:

> (1) consultation, investigation, evaluation, analysis, planning, engineering for program management, providing an expert engineering opinion or testimony, engineering for testing or evaluating materials for construction or other engineering use, and mapping;
>
> (2) design, conceptual design, or conceptual design coordination of engineering works or systems;
>
> (3) development or optimization of plans and specifications for engineering works or systems;
>
> (4) planning the use or alteration of land or water or the design or analysis of works or systems for the use or alteration of land or water;
>
> (5) responsible charge of engineering teaching or the teaching of engineering;

(6) performing an engineering survey or study;

(7) engineering for construction, alteration, or repair of real property;

(8) engineering for preparation of an operating or maintenance manual;

(9) engineering for review of the construction or installation of engineered works to monitor compliance with drawings or specifications;

(10) a service, design, analysis, or other work performed for a public or private entity in connection with a utility, structure, building, machine, equipment, process, system, work, project, or industrial or consumer product or equipment of a mechanical, electrical, electronic, chemical, hydraulic, pneumatic, geotechnical, or thermal nature; or

(11) any other professional service necessary for the planning, progress, or completion of an engineering service.

-B. An Overview of the Concept of Legal Liability-

A professional engineer owes various duties and has various obligations to his or her profession and the public at large. The engineer's conduct is governed by canons of ethics, the Engineering Practice Act, and Texas and federal law. Violations of some of these constraints may only cause the engineer a minor headache. Violations of others may subject the engineer to serious civil or criminal sanctions and penalties.

Texas has adopted the "common law" from England as the underlying source of its law. In England, a common law developed as the uniform customs of the realm. Judges would follow and accept the earlier decisions of other judges from cases involving similar facts. If there was no

"precedent", the judges would reason by analogy from similar cases, or would devise their own rules, which subsequent judges could rely on as "precedent". For this "precedent" system of common law to work, the law had to be written. The earliest writings appeared during the reign of Henry III (1216-1272).

-1. Jury System

The jury system developed as a part of the common law. Today, a jury typically consists of twelve citizens with no prior knowledge about the case or its facts. The jury's task is to listen to and observe the testimony and evidence and to decide the issues presented to them, based on their perceptions and the court's legal instructions. In practice, if a person has any expertise that may be helpful in deciding the case, the person likely would be stricken from the jury during jury selection.

Mark Twain assessed the jury system in a 4th of July speech in 1873:

> We have a criminal jury system which is superior to any in the world; and its efficiency is only marred by the difficulty of finding twelve men every day who don't know anything and can't read.

Mark Twain also wrote about the jury system:

> The jury system puts a ban upon intelligence and honesty, and a premium upon ignorance, stupidity and perjury. It is a shame that we must continue to use a worthless system because it was good a thousand years ago...I desire to tamper with the jury law. I wish to so alter it as to put a premium on intelligence and character, and close the jury box against idiots, blacklegs, and people who do not read

newspapers. But no doubt I shall be defeated--every effort I make to save the country "misses fire."

-2. Evidence

Most legal suits settle, but if they reach the trial stage, they are governed by various rules of trial practice. The facts are determined from: the sworn testimony of witnesses, including the parties to the suit; documents; physical evidence; and common knowledge (public laws, geographic facts, established scientific data, public history, and court records). Common knowledge is often recognized by the court through judicial notice.

-3. Direct and Circumstantial Evidence

Evidence may be classified either as direct or circumstantial. Direct evidence tends to prove or disprove a fact without any other corroborating evidence. Circumstantial evidence is evidence of some fact that logically leads to a probable conclusion of the existence of the fact at issue. Eyewitnesses of persons, places, and things involved in an accident, for instance, generally do not agree completely on what they saw. The direct evidence of one witness may contradict that of another in greater or less detail. Pieces of circumstantial evidence obtained from several witnesses often fit together logically to form a convincing whole. Circumstantial evidence often reveals the true facts more conclusively than direct evidence.

-4. Admissible Evidence

To be admissible in a trial, evidence must be relevant, competent, and material. To be relevant, it must apply to the case at issue, both legally and logically. To be competent, evidence

must be proper proof of facts presented in the case. To be material, evidence must have actual bearing on the facts in the case.

-5. Hearsay Evidence

Hearsay evidence is not admissible because such evidence depends for its truth or falsity on the action or statement of a person other than the witness himself or herself. Some of the reasons for this rule of law are:

-The "other" person was not under oath when he made the statement attributed to him by the witness.

-He was not subjected to the cross examination of opposing counsel.

-The jury could not observe his actions while testifying.

-The jury cannot be certain that, through error or misunderstanding, the witness misquoted the other person's statement.

-The jury cannot be certain that the witness has not misquoted the other person's statement deliberately.

There are, however, may exceptions to the hearsay rule, which will not be addressed in this paper.

-6. Best Evidence

Courts require that the best evidence be presented at trial. The best evidence of the contents of a document, for example, a pertinent contract submitted as proof in a trial, is the complete document itself. Neither a part of the original document nor a carbon copy of it nor oral testimony about the contents of the document is admissible if the original can be produced. When the original is in the possession of parties unwilling to produce the document at the trial of if it cannot be found, courts will admit secondary evidence copies or oral testimony, if they are presented with legal explanation.

Another rule of law is that no oral (or parol) evidence is admissible which tends to change the terms of a legal document, such as a contract, deed, mortgage, or note. A written and signed document is taken to express the complete intent of the parties, and, as a general rule, no oral evidence will have weight to contradict the document.

The several legal rules of evidence are technical and any professional engineer faced with gathering evidence for a suit should confer regularly with his client's attorney to be assured of the admissibility of the evidence he is collecting for the trial.

-7. Admissibility of Evidence

In all cases, testimonial evidence and circumstantial evidence must be relevant to prove some fact in issue or to prove a relevant fact leading to proof of a fact in issue. If the evidence is not very relevant it may be excluded on grounds of prejudice, surprise, or confusion. Also, the evidence must be given at a time when each party can hear the evidence produced against him and be given the opportunity of countering it.

If addition to these two general requirements, the evidence must beet other tests developed through the centuries into rules of law. They are complex and not always easy for the lay person to understand.

In general, however, they have been formulated from experience in trials going back to early days in England, and are based on rules of human nature applied to the quest for truth. These rules include those summarized below.

-8. Preferential Rules

Certain witnesses and certain evidence may not be admitted in preference to witnesses or evidence of higher order, unless such higher-order evidence is first admitted or shown to be unavailable. Thus, an eyewitness is preferred to other types of witness; and the original of a document must be produced unless it is shown to be unavailable.

-9. Hearsay Principles

Our trial system gives each party the right to cross examine witnesses to test the credibility of their evidence. The exclusion of hearsay evidence is largely because it is not possible for the other person to test the credibility of the hearsay evidence in court. For example, testimony by A as to what X said is not admissible in proving the truth of X's statement. Most of the numerous exceptions to this rule of exclusion are granted because extrinsic circumstances tend to make the hearsay statement more trustworthy. For example, "spontaneous" statements made immediately after an accident would tend to be more credible than later testimony in court.

-10. Problems of Corroboration

Testimony of one spouse in a divorce action must be upheld by that of one other witness; and a person accused of a crime cannot be convicted on his uncorroborated confession. Although the corroboration may be slight, it is necessary.

-11. Entire Document

An entire document or statement must be available for use in evidence and not just a part of it.

-12. Authentication of Written Documents

Written documents used in court must be proved to be what they are purported to be, and signatures must be authenticated.

-13. Privileged Communications

A party need not disclose certain facts. Certain communications, such as those between an attorney and client, or patient and doctor, are privileged and are not admitted without consent of the client or the patient

-14. Competency and Capacity of Witnesses

In early days, parties to a lawsuit were not compelled to testify because they might perjure themselves, but, today, they may testify. It must be shown that individuals with mental deficiencies have the capacity to have perceived and to testify as to what they saw, else they are excluded as witnesses. In this connection, sane persons have been known to make very bad witnesses because of faulty memory, faulty eyesight, bad hearing, or simply inattentiveness at the time of the occurrence about which they were testifying. Then, too, insane persons often have good eyes and a good memory for certain things.

-15. Burden of Proof

"Burden of proof" is an expression used in stating the responsibility of the party to the suit whose duty it is to establish a case. The burden of proof is usually upon the plaintiff (the party bringing the suit). In civil cases a preponderance of evidence is enough to "prove" a case. In criminal cases, convictions require proof beyond a reasonable doubt.

-C. Legal Bases for Bringing a Professional Liability Action

-1. Contract

Contracts are a part of our everyday life. Each of us probably makes hundreds of them each year without giving them a second thought. We make a contract each time we order groceries, a new suit, gasoline for the car, or a new car itself. Few realize that these orders are contracts. Also, these contracts are made without any particular knowledge of the "law." Making such simple contracts rarely requires knowledge of the "law of contracts," but making more complex contracts requires considerable knowledge of this branch of the law.

The law of contracts gives predictability and stability to commercial transactions. Under our present legal system, if an agreement is properly made, each party to the contract knows what he must do and what the consequences will be if he does not fulfill his promise. In this way, when the parties make a contract they can predict the outcome of their bargaining. If the market price of iron goes up after one party agrees to sell iron at $10 per ton, the other party knows that he will make a profit on the transaction, because the sales price has been fixed by contract. If the market price goes down, he knows that his profit will be less or that he may have a loss.

After an enforceable agreement (contract) is made, should a dispute arise, either party can petition the court to resolve the dispute. The decision of the court is binding.

The court's duty is to enforce the contract in accordance with the parties' intentions. When the contract is written and the intent of the parties is clearly expressed, the court's task is simple. However, if the contract is oral, or the parties did not cover the entire problem in their written agreement, or when the terms of the agreement are unclear, the court's duty is to determine what the parties intended by examining the circumstances; the nature of the contract; any relevant customs and practices; and the conduct and discussions of the parties themselves.

Before entering into a contract each party should outline what he proposes to do and what he expects from the other party in exchange. In short, each party should consider the terms of performance including "the who, what, when, where, and price." Each should list as completely as possible all the things that could go wrong, including such things as defective workmanship, defective performance, late deliveries, late payment, fines, strikes, and subcontractor delays. He should then decide what should be done in case any one of these contingencies should arise. Having taken these matters under consideration, he is in a much better position to negotiate and prepare a clearly written contract.

Indeed, the quality of enforceability of contracts permits the parties to divide responsibility and share the various financial risks involved – the fluctuations in the prices of materials, labor, supplies and equipment; risks of strikes, fires and floods; the existence of unfavorable subsoil conditions, and other unexpected emergencies. These risks should be divided between the parties in accordance with their negotiating strength and skill, and they will be, if the contract is prepared properly.

An enforceable agreement (contract) changes the legal relationships of the parties. One or both of the parties to the contract will acquire new rights with respect to the other party and, in return, will be subject to new duties. Understanding this change in rights and duties is essential to understanding the concept of a contract.

-(a) Requirements of an Enforceable Contract

A contract is an enforceable agreement. The agreement is enforceable if the parties create additional rights or duties. In general, this requires that one party perform an act or promise to perform an act, which he was not at the time obligated to do, in exchange for a similar act or promise by the other party. The act may be passive, that is, one party can create an enforceable obligation by refraining from doing some act or by promising to refrain.

It is difficult to make simple and workable definitions of laws because of the many complexities of the law and its exceptions. However, one might define a contract simply as an enforceable agreement between two or more parties whereby one party does some act or makes a promise to do an act, or refrains from doing an act, in exchange for an act or promise by the other party. To be enforceable (valid) a contract must incorporate all of the following basic elements:

(1) Mutual assent of the parties to be bound (an offer and an acceptance)

(2) The parties must possess legal capacity to contract

(3) The contract must be supported by valuable consideration

(4) The objective must be legal, and legally attainable

A void contract lacks one or more of these basic elements; it has no legal effect on the parties; and a court will refuse to enforce it. Some contracts otherwise valid can be avoided (disaffirmed) by one of the parties under certain circumstances. For example, a contract with a minor can be disaffirmed by the minor at his option. Such a contract is said to be a voidable contract. A voidable contract, however, remains valid unless and until the option to disaffirm it has been exercised.

-(b) Mutual Consent

In order to reach an enforceable agreement, there must be communication between the parties to a contract. Each party must inform the other about what he wants and what he is willing to do in exchange. The parties must agree on their mutual expectations. This interchange of expectations must necessarily precede the creation of a contract.

The assent must be mutual, and objectively manifested. The secret intent of the parties will not make a contract nor will the secret reservations of one of the parties prevent the formation of a contract.

-(c) Offer and Acceptance Defined

An offer is a promise by a party (offeror) that he will do an act or will refrain from doing an act in return for some act or promise on the part of the other party (offeree). A promise is a declaration of intention by a person that some event will or will not happen in the future. An offer must be communicated, be definite and certain, and it must evidence the intent to enter into a contract. An acceptance is an unconditional agreement to be bound by the terms of the offer. The acceptance, too, must be communicated to the offeror.

-(d) Serious Contractual Intent

Only offers evidencing serious contractual intent can create an enforceable contract. Not every interchange or mutual expectations in the form of offers and acceptances will be enforced by the courts as a valid contract. Promises of a special nature are not enforceable. A promise to take a friend to business acquaintance to lunch does not constitute an enforceable contract, even though accepted.

An offer and an acceptance made in jest are not binding.

-(e) Offer Must Be Definite and Certain

An offer is definite and certain when the necessary terms are specified – price, quantity, and description of subject matter, and place and time of performance. Specific terms may also be provided by reference to other documents. If the price is omitted, a reasonable price may be presumed. If the quantity is omitted, a reasonable quantity may be presumed. If the time for performance is omitted, a reasonable time will be presumed.

-(f) Duration of Offer

A definite and certain offer (promise) made with intent to enter into a contract is the first step in the creation of a contract. A contract may be formed by acceptance of the offer at any time prior to the date of the termination of the offer. Offers do not live forever. They terminate: (a) at the end of the time specified in the offer, (b) at the end of a reasonable time when the offer does not specify duration, (c) upon the death or insanity of the offeror or offeree, (d) upon the rejection (expression of non-acceptance) by the offeree, and (e) upon the revocation (withdrawal) of the offer by the offeror.

-(g) Acceptance of Offer

As a general rule, an offer is accepted when the acceptance is deposited with the means of communication authorized expressly or by implication. To illustrate, an offer sent by mail is accepted when the acceptance is mailed.

An attempt to vary the terms of the offer by adding new terms or conditions revokes the offer and, in effect, constitutes a counteroffer.

Silence can effect an acceptance. Situations creating a duty to speak may arise under the following circumstances: (a) when the parties have agreed to use silence as an acceptance; (b) when

one party has customarily accepted another party's shipments of goods without rendering an acceptance; (c) when goods are retained on approval beyond a reasonable time after delivery; (d) when goods are actually used.

-(h) Mistakes Preventing Formation of Contract

Mutual mistakes concerning the subject matter of the contract will prevent the formation of a contract. This rule is based on the theory that the parties must reach an agreement before a contract can be formed and that when both are mistaken, no agreement is possible. Thus, if each party is mistaken as to the existence or identity of the subject matter, no contract can arise.

Other mutual mistakes concerning a basic or material fact may furnish grounds for ending the contract, and returning any consideration that may have been given for the contract. This procedure is known as rescission.

A unilateral mistake does not affect the validity of the contract. When on ly one party makes a mistake in expressing his intent or in unreasonably interpreting the other party's communications, a general rule provides that he contract will be enforced without reference to the mistake. Exceptions to this rule provide for correction of the mistake or rescission (1) when the other party influences the mistaken party to make the mistake; (2) when the mistake is known to the other party before reaching an agreement; and (3) when the mistake was such that a reasonable man in the position of the other party should have known that a mistake had been made.

-(j) Consideration

For an enforceable contract, there must be promises free from mistake, duress, and undue influence, and must be supported by consideration. Consideration is of three types: (a) good consideration; (b) valuable consideration; and (c) fair and adequate consideration. Only valuable

consideration is required to make an enforceable contract. By comparison, good consideration refers to blood ties of relatives, and the former requirement for real estate transactions between relative. Today, when you see the words "good and valuable consideration" in a contract, you know that the word "good" is a remnant of the old legalistic jargon relating to transactions involving real property. Fair and adequate consideration has been required by the equity courts to enforce the specific performance of contracts under equity principles.

II. Avoiding Liability under Contract

To understand how a person can be liable under a contract (and thus avoid the liability), you must first appreciate the kinds and types of contract provisions that can impose obligations and other legal consequences.

-A. Implied Contract Obligations

Courts will not generally make contracts for the parties. However, if the words of the contract provide a basis for implying additional terms or conditions, the court may add such terms and conditions. Before a court will add an additional term or condition, the court will determine from the contract either that (1) the implied term was so clearly contemplated by the parties that they deemed it unnecessary to express it, or (2) it is necessary to imply a term or condition to give effect to the purposes of the contract as a whole.

In construction contracts, there is an implied obligation on the owner not to delay or obstruct the contractor in performing the work to be done. The owner can violate this implied duty by not furnishing the necessary materials, easements, rights of way, or services on a timely basis.

The contractor has an obligation of good and workmanlike performance. This obligation does not require perfect work, just work which is acceptable in the industry and under the circumstances. However, this warranty becomes confused when the contractor blames a poor performance on defects in the plans or specifications. Courts may require an experienced contractor to detect and avoid the defects.

If the contractor is constructing a residence, the contractor will have a warranty of habitability, which means that the structure is liveable. In *Evans v. J. Stiles Inc.*, 689 S.W.2d 399 (Tex. 1985), the Texas Supreme Court held that the builder and seller of a new home impliedly warranted both the workmanship and habitability of the home. In *Gupta v. Ritter Homes Inc.*, 646 S.W.2d 168 (Tex. 1983), the court held that the builder/vendor's implied warranty of both workmanship and habitability extended to a subsequent purchaser of the home.

If the contractor has reason to know of the purpose for which a structure or project is to be built, the contractor may owe an implied duty of fitness for a particular purpose. In other words, the structure or project must function as intended. This duty is particularly important in a design-build situation, where the design-builder is satisfying the owner's needs for a specific structure or project.

The owner's failure to provide adequate plans and specifications can violate an implied obligation to the contractor. However, Texas courts are mixed on the extent of this duty. The Texas Supreme Court in *Longeran v. San Antonio Loan & Trust Co.*, 101 Tex. 63, 104 S.W. 1061 (1907), clearly held that the owner does not warrant the sufficiency of the plans and specifications and is not liable for any defects in them. Two Houston Court of Appeals cases demonstrate the confusion since then.

In *Emerald Forest Utility District v. Simonson Construction Co.*, 679 S.W.2d 51 (Tex.App. -- Houston [14th Dist.] 1985, writ ref'd n.r.e.), the court cited the *Longeran* case and denied a contractor's claims from defective plans and specifications. A different panel of judges in *Shintech v. Group Constructors Inc.*, 688 S.W.2d 144 (Tex.App. -- Houston [14th Dist.] 1985, no writ), rejected the contention that the contractor always assumed the risk of defective plans and specifications. The *Shintech* court held that when the contract was silent, the owner warranted the sufficiency of the plans and specifications for the project.

There is no implied duty of good faith in performing a contract in Texas. The Texas Supreme Court so held in *English v. Fischer*, 660 S.W.2d 521 (Tex. 1983), where it refused to hold that "in every contract there is an implied covenant that neither party will do anything which injures the right of the other party to receive benefits of the agreement."

The case *City of San Antonio v. Forgy*, 769 S.W.2d 293 (Tex.App. -- San Antonio 1989, writ denied), illustrates the problem with no duty of good faith. There, a metal casing around a water well ruptured, and the contractor had to drill a second well at considerable expense. During discovery in the ensuing suit, the contractor found out that the City's engineer knew before hand that the casing was undersized and was likely to rupture. Despite the City's prior knowledge that the casing would fail, the court refused to impose a duty of good faith on the City in its dealings with the contractor.

In theory, a contractor or owner may disclaim or limit the effect of an implied warranty. In theory, an express warranty should displace an implied warranty. In *Vaughn Building Corp. v. Austin Co.*, 620 S.W.2d 678 (Tex.Civ.App. -- Dallas 1981), *aff'd*, 643 S.W.2d 113 (Tex. 1982), a roofer contended that its one year express warranty demonstrated that the parties intended to displace any implied warranties. The court of appeals held, however, that to disclaim an implied warranty,

the parties must expressly state that an express warranty does so. The Supreme Court affirmed the case on interpretation of the express warranty, but did not reach the question of whether the mere existence of an express warranty replaces an implied warranty.

The Texas Supreme Court in *Melody Homes Manufacturing Co. v. Barnes*, 741 S.W.2d 349 (Tex. 1987), held that the parties may not waive or disclaim an implied warranty to perform repairs in a good and workmanlike manner. The Texas Deceptive Trade Practices --Consumer Protection Act ("DTPA"), Texas Business and Commerce Code Sections 17.41, et seq., voids most waivers by a consumer of the DTPA's provisions as being contrary to public policy. The DTPA does allow waivers under certain specified circumstances, which involve the retention of legal counsel and large transactions.

-B. Differing Site Conditions

Differing site conditions are essentially conditions which differ in some degree from that which the parties expected. One way of managing differing site conditions is to include a differing site conditions clause in the contract. Differing site conditions clauses seek to allocate equitably an unknown risk between the owner and the contractor. In theory, this equitable apportionment should minimize costs to the owner because it allows the contractor to remove this contingency from its bid. The owner avoids overpayment on the majority of projects and is required to pay for differing site conditions only when they occur.

Despite the theory supporting inclusion, there are good reasons not to include a differing site conditions clause in the contract. Those owners who do not often build may not generate the experience sufficient to realize the cost savings of contractor's removal of the differing site

conditions risk. An owner who rarely engages in construction may be more concerned with the potential for a catastrophic cost overrun than the incrementally higher construction cost that the differing site conditions clause may cause. Second, some owners, particularly public owners, have limited funds for the construction of a project. Substantially increasing the project budget to accommodate a changed condition may be impractical. Third, placing the risk on the contractor provides the contractor with an incentive to minimize the financial effect of the discovered condition. If the contract has a differing site conditions clause, the contractor may see the changed condition as an opportunity to recoup other losses on the project at the owner's expense. Finally, in a competitive market, empirical evidence indicates that contractors do not quantify the risk of differing site conditions and may undervalue the risk. Under these conditions, elimination of the differing site conditions clause benefits the owner at little or no cost.

Federal Government contracts contain a standard provision relating to differing site conditions, which takes precedence over any contrary language in the contract. These standard provisions are often included in federally funded work for states and local governments. The federal provision recognizes two types of differing site conditions. A Type I claim provides for an equitable adjustment if the conditions encountered differ materially from those indicated in the contract. Although the representation of the conditions need not be explicit, the contract documents must provide sufficient grounds to justify a bidder's expectation of latent conditions materially different from those actually encountered.

When the contract documents do not contain affirmative misrepresentations as to anticipated conditions, a contractor's right to a contract adjustment may nonetheless arise from unusual physical

conditions differing materially from those ordinarily encountered in work of the character provided in the contract. These claims are generally referred to as Type II claims.

The federal differing site conditions clause is listed in the Code of Federal Regulations, 48 C.F.R. §52.236-2 (1991), as follows:

> (a) The Contractor shall promptly, and before such conditions are disturbed, give a written notice to the Contracting Officer of: (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) unknown physical conditions at the site of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in this contract.
>
> (b) The Contracting Officer shall investigate the site conditions promptly after receiving the written notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or of the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.
>
> (c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed unless the Contractor has given the written notice required; provided, however, the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.
>
> (d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

The 1987 edition of the American Institute of Architects (AIA) Document A201, General Conditions for the Contract for Construction, contains a differing site conditions clause similar to the federal model.

Having a differing site conditions clause in the contract does not exempt the contractor from inspecting the site. Courts have found an implied obligation that a contractor make at least a minimal inspection of the site to familiarize itself with the property. Most contracts today include

an express "site inspection clause" obligating the contractor to inspect and familiarize itself with the conditions at the site. The AIA A201 General Conditions has such an inspection provision, and directs the contractor to verify field conditions and measurements before commencing construction.

When the contract has a site inspection clause, and the contractor unreasonably fails to inspect the site, the contractor may be foreclosed from invoking the terms of the differing site conditions clause. If, however, the contractor makes a reasonable inspection of the site, yet fails to discover the differing site condition, the two clauses may conflict.

The courts have resolved the conflict by applying a standard of reasonableness. The contractor is obligated to discover conditions apparent through a reasonable investigation. The contractor is not obligated to discover hidden conditions, which do not surface through a reasonable investigation. The contractor is also not required to perform burdensome, extensive, or detailed tests or analyses. If the investigation is constrained by weather conditions, site conditions, or time in the contracting process, the contractor will be only required to perform an investigation that is reasonable under the circumstances.

A disclaimer or reliance clause may limit the effectiveness of a differing site conditions clause. These clauses typically state that information received from the project owner is provided solely for informational purposes and that the owner does not warrant the accuracy or sufficiency of the information provided. The objective of the provision is to render unreasonable any reliance by the contractor on owner-provided information which characterizes the condition of the property.

Courts have reached a variety of results on the effect of disclaimer provisions. Some courts have held that a disclaimer effectively precluded a contractor from arguing that reliance on the owner-provided information was reasonable. See, *J.E. Brenneman Co. v. Commonwealth*

Department of Transportation, 56 Pa. 210, 424 A.2d 592 (1981); *Zurn Engineers v. State of California*, 69 Cal.App.3d 798, 138 Cal.Rptr. 478, *cert. denied*, 434 U.S. 985 (1977). In order to be effective, such clauses should provide that the information was not warranted and that the contractor has not relied on the information. These provisions are most effective when combined with a site inspection clause.

In *Brown-McKee, Inc. v. Western Beep, Inc.*, 538 S.W.2d 840 (Tex.Civ.App. -- Amarillo 1976, writ ref'd n.r.e.), the contractor had no notice of a hard rock formation immediately below the ground surface. However, the contractor's claim for a differing site condition was denied due to a broad disclaimer of subsurface conditions in the contract. The court held that with that clause, the contractor would have to prove deception or bad faith on the part of the owner or show that the owner had withheld material information that it had a duty to disclose.

In *Millgard Corp. v. McKee/Mays*, 49 F.3d 1070 (5th Cir. 1995), the contract disclaimed a particular soil borings report. Although the contract also contained a differing site conditions provision, the court held that the subcontractor could not rely on the soil borings report to support its claim since the report had been specifically disclaimed.

Other courts have held that disclaimer clauses do not preclude reliance on information received from the owner. The situations in which courts have allowed contractors to rely on information received from the owner despite a disclaimer clause may be grouped in three categories. First, cases hold that reliance was permissible because the contractor performed a reasonable investigation that confirmed or supported the information received from the owner. Second, cases hold that reliance was justified because the owner intended that the contractor rely on the information in preparing a bid. Third, cases hold that reliance was justified because the

circumstances did not allow sufficient time for the contractor to conduct an adequate independent investigation. The cumulative effect of these limitations is that a contractor may rely on information received from the owner except when relatively simple inquiries might have revealed contrary conditions.

-C. Exculpatory Clauses

-1. Indemnity

If the owner requires indemnity for its own negligent acts, the owner cannot subtly demand it. Indemnity for one's own negligence must be expressly stated in the contract. In *Ethyl Corp. v. Daniel Construction Co.*, 725 S.W.2d 705 (Tex. 1987), the Texas Supreme Court announced the express negligence doctrine to avoid confusion in the interpretation and enforcement of indemnity provisions. Unless the owner writes the indemnity provision in clear black and white language, the contractor will not have to indemnify the owner for the owner's own negligence.

The standard AIA language like ¶3.18 in the A201 General Conditions will not satisfy the express negligence doctrine, since it does not mention the owner's negligence.

In *Atlantic Richfield Co. v. Petroleum Personnel, Inc.*, 768 S.W.2d 724 (Tex. 1989), the Texas Supreme Court upheld the following language as satisfying the express negligence doctrine:

> Contractor [PPI] agrees to hold harmless and unconditionally indemnify COMPANY [ARCO] against and for all liability, cost, expenses, claims and damages which [ARCO] may at any time suffer or sustain or become liable for any reason of any accidents, damages or injuries either to the persons or property or both, of [PPI], or of the workmen of either party, or of any other parties, or to the property of [ARCO], in any matter arising from the work performed hereunder, including but not limited to any negligent act or omission of [ARCO], its officers, agents or employees.

In *Dresser Industries v. Page Petroleum Co.*, 853 S.W.2d 505 (Tex. 1993), the Supreme Court stressed that an indemnity agreement must be conspicuous enough to provide "fair notice" of its term. To provide "fair notice," an indemnity provision must be apparent to a reasonable person. A notation on the face of the contract which draws attention to the provision, such as all capital letters or contrasting type or color is sufficient.

In *Fisk Electric Co. v. Constructors & Associates*, 888 S.W.2d 813 (Tex. 1994), the court held that if an indemnity provision does not initially satisfy the express negligence doctrine, an indemnitor has no duty to indemnify another for their attorney's fees even if the other were later found not to be negligent.

The Texas Civil Practice & Remedies Code §130.002 invalidates a provision which attempts to have a contractor indemnify an architect or engineer for liability and damage for personal injury, property damage, and expenses arising from the design professional's negligence in preparing plans or specifications or in contract administration.

If the owner has required the contractor to indemnify the owner for the owner's own negligence, the contractor should secure sufficient liability insurance to cover the risk. If the contractor cannot obtain such insurance, the contractor should seriously consider qualifying its bid or not bidding at all. A Texas court has held that an agreement to cover a party's negligence also covers the party's gross negligence, which could result in punitive damage award in millions of dollars.

-2. No Damages for Delay

Ordinarily, Owner is responsible for delays the owner causes to the contractor. For example, the owner may be responsible for obtaining rights of way on a project. If the owner does not obtain

the rights of way in a timely manner and delays the work, the owner can be liable for the contractor's extra costs.

In *Anderson Development Corp. v. Coastal States Gathering Co.*, 543 S.W.2d 402 (Tex.Civ.App. -- Houston [14th Dist.] 1976, writ ref'd n.r.e.), the owner was to obtain the rights of way for the work. The parties had planned to do the work in the dry summer months. Because the owner failed to obtain the rights of way before the summer, the contractor had to perform the work in the fall in between rain storms. As a result, the work was performed sporadically as weather permitted and cost significantly more. The contractor did not complete work until three months after the scheduled completion date. The contractor successfully sued to recover its extra costs.

In *Board of Regents of the University of Texas v. S&G Construction Co.*, 529 S.W.2d 90 (Tex.Civ.App. -- Austin 1975, writ ref'd n.r.e.), the owner failed to provide proper plans and specifications. The work was delayed while the job was redesigned on a daily basis. The contractor incurred almost $900,000 in extra costs as a result of the massive number of changes. The contractor successfully sued to recover the extra money. The court reasoned that the owner had caused the delays and increased the costs, and should pay for them.

With a no damages for delay clause, however, the owner can disclaim responsibility for the contractor's extra costs arising from delays on project. Texas courts have upheld the no damages for delay disclaimer.

In *City of Houston v. RF Ball Construction Co.*, 570 S.W.2d 75 (Tex.Civ.App. -- Houston [14th Dist.] 1978, writ ref'd n.r.e.), the contractor received several hundred change orders and almost 900 design clarifications radically altering the plans and specifications for the project. The large number of changes was later held not to be within the contemplation of the parties when the project

began. As a result of all the changes, the contractor incurred $3 million in extra cost not including the direct costs of performing all the extra work. The contractor sued to recover the indirect costs of delay, disruption, general hindrance, and inefficiency.

However, the contract contained a variation of the no damages for delay clause, which precluded recovery for extra indirect costs for changes and modifications to the contract.

There are exceptions to enforcement of the no damages for delay clause. In general, the no damages for delay clause will not be enforced if the delays that occurred were not contemplated when the contract was signed. The contractor's delay claim will not be barred if the delays were caused by the owner's active interference, bad faith, or intentional misconduct. If the owner abandons the contract, the owner can be liable for delay damages regardless of the no damages for delay clause. Finally, if the owner materially misrepresents site conditions or conceals material site conditions information, the owner may be liable for delays the contractor sustains.

-3. Disclaimers of Liability

Disclaimers of liability may come in many flavors. One example is the no damages for delay clause discussed above. The owner may disclaim liability for defects in the plans or specifications, or for the availability of materials. The owner may disclaim liability for extra costs that the contractor incurs for any of a variety of specified reasons. For example, the owner may require the contractor to assume the risk that regulatory authorities may change regulations on the handling of aspects of the work, with the owner disclaiming any responsibility for the extra costs of such changes.

The parties may disclaim liability for special, incidental, indirect and consequential damages arising from some cause or other or from a breach in the contract. To demonstrate, say the owner

agrees to pay the contractor $1 million for the project. The contractor then buys an expensive machine for the project. The owner does not pay on schedule. Without the payment, the contractor cannot make payments on the equipment and the bank repossesses it. The loss of the equipment is a special or consequential damage. If the owner disclaims special or consequential damages, the contractor will have no claim against the owner for loss of the equipment.

-4. Limitations of Liability

The assumption of risk should have a value. For example, to limit risk, a party may buy insurance. The value of that risk then becomes the cost of the insurance. To avoid the high costs of risk, the parties may agree to a method of limiting liability.

-(a) Liability Limited to Amount of Compensation

One method of limiting liability is to cap a party's liability to a set amount or a percentage of some amount. For example, the parties may agree to limit the liability of the contractor to the amount of its contractor's fee for the project. This will allow the contractor to quantify the risk of liability to the owner, and to remove a contingency for the liability from its price. In theory, the owner then receives the benefit of a lower price in return for a definable value of liability for the contractor.

-(b) Liability Limited to Insurance Proceeds

An alternative way of limiting liability is to limit the liability to the amount of insurance proceeds. Risk has a cost. Purchasing insurance allocates the cost and defines the amount of risk. Again, the owner may receive a lower price, as the contractor deletes a contingency for the risk now covered by insurance. If the owner protests the amount of insurance is too low, the contractor can

ask the owner to set the amount of insurance at a higher figure, with the contractor passing along to the owner the cost of the higher insurance.

-(c) Liability Limited to a Set Amount

Another way to define the risk is to limit the amount of liability to a set amount, which may be more or less than the contractor's fee. Here, the parties agree that in the event of a claim by the owner against the contractor, the contractor's liability is limited to $10,000, or some other agreeable figure. Again, the advantage is that the risk is defined and may be deleted as a contingency, saving costs for both parties.

-(d) Limitation of Liability on a Comparative Negligence Basis

The parties may agree to limit liability to the percentage fault that one party bears for the problem. For example, the contractor may limit its liability to the owner to the percentage share that the contractor's negligence or fault bears to the total negligence of the owner, other contractors, the architect/engineer, and all other negligent parties. This limitation in the contract tends to reduce the owner's expectations of recovery from the contractor and may lead to an earlier resolution or settlement of the dispute.

-D. Extras and Changes

-1. Scope of Work

The scope of work is simply the listing of what work a contractor is to perform for a construction project. Ideally, the scope of work is set out in the contract or an attachment to the contract. Although simple enough in concept, the devil is in the details. Defining the scope of work

may require listing not only what the contractor is to do, but also what it is not to do. For example, if the contractor is to install a dishwasher, is it also to furnish the dishwasher?

Owners and architects and engineers often define the scope of work by not only as what is listed but also by what is reasonably implied for the work. That definition can lead to disputes. For example, if the plans show that the contractor is to install the dishwasher, the owner may then argue that it may be reasonably implied that the contractor is also to furnish the dishwasher. The contractor may contend that the dishwasher is "NIC" not in contract.

Disputes over the scope of work can often be avoided during the bid phase by submitting a request for information or clarification to the architect, engineer or owner. The owner, architect or engineer may then issue an addendum to the bid solicitation to clarify the scope of work.

Once the parties know the scope of work, they are better prepared to tell if the scope has been changed.

-2. Constructive Changes

"Constructive" is a legal word of art. "Constructive" in this context means that you must pretend that something is when it isn't. A "constructive change" is a change to the scope of work which generally only one side recognizes. For example, say an owner has delayed progress by not providing a right of way to the contractor. Without a right of way, the contractor cannot readily work on a particular site. (If the contractor tries to work on that site without the right of way, he may face shotgun justice from the resident.) Unless the owner then extends the contract time, the contractor will be faced with doing the same amount of work but in less actual working day. If the contractor asks for an extension of time for the delay, and the owner denies the extension, the contractor may contend that the contract time has been constructively changed because the contractor has had to do

the same amount of work in less time. In this instance, the contractor would argue that it has been constructively accelerated.

-3. Pricing

The pricing of extras and changes is often problematic. The owner and design professional are sensitive to increases in the contract amount. The owner may question why the designer did not already include the change in the initial design. The designer may be defensive for the oversight. The contractor may have overlooked an item which was necessary for the project but not explicitly set out in the plans and specifications. The contractor possibly should have questioned the omission during the bid solicitation.

In pricing the change, the contract terms control if they address the matter. Often, the contract or owner call for unit prices from the contractor's bid to price the change. For example, if the owner has to add a manhole for a sewer project, and the contractor's bid has a unit price for manholes, the owner will pay the additional unit price.

In practice, this unit price from the bid approach seems equitable, but in reality may not be so. If the contractor bids just a few of an item, and lists a high price for so few, adding a great number at the high price will be unfair to the owner. Conversely, if the contractor has a low unit price for many of an item, and the owner deletes most of them, charging the low unit price will be unfair to the contractor. Some contracts have provisions on changes in numbers of units just to address this problem.

If there are no unit prices for the item, the parties often negotiate the additional cost. The contractor will submit a proposal and the owner will accept or dicker over the price. If the parties are unable to agree on a price, the owner may order the contractor to perform the work on a time and

materials basis. The contractor must segregate the amount of labor time and materials its invests in the change. Alternatively, the owner may order that the work be performed as per a force account provision in the contract, which specifies how the contractor will be paid.

No matter how payment for the change is structured, the contractor should account for its costs for the change separately from its base contract costs, by charging the change costs to a change order account cost code. That way, the contractor can verify its costs should any questions later arise, and determine its costs for the base contract for a profitability analysis.

-4. Written Change Orders, Exceptions and Reservations of Rights

Most contracts require written change orders to authorize changes (especially payment for changes) in the work. If the contractor proceeds with the work without a written change order, the owner may later claim that the change was not authorized. Many contracts even have a provision which prohibits oral modifications or changes to the contract. These no oral modifications attempt to preclude the contractor from relying on the owner's or designer's field inspector's oral authorization for a change.

In DH Overmyer Co. v. Harrison, 453 S.W.2d 368 (Tex.Civ.App. -- El Paso 1970), the court stated that:

> It is the general rule that a stipulation, in a private building or construction contract, that changes, alterations or deviations must be ordered in writing, is valid and binding upon the parties and, therefore, so long as such a provision remains in effect, no recovery can be had for the alterations done without a written order in compliance therewith.

Few rules are absolute, however, and the no payment without written change order rule is one riddled with exceptions. The most common exceptions are the theories of quantum meruit, waiver, breach of contract, and oral agreement.

-(a) Quantum Meruit

Quantum meruit is an equitable remedy which permits a contractor to recover the reasonable value of labor, services, and materials it provides for a project. Quantum meruit is not applicable when there is a specific contract provision covering the work in question. Determining whether the work is covered by a contract provision is the crucial analysis for quantum meruit. The Texas Supreme Court examined this issue in *Black Lake Pipe Line Co. v. Union Construction Co.*, 538 S.W.2d 80, 86 (Tex. 1976):

> We begin with the premise that the right to recover in quantum meruit is based upon a promise implied by law to pay for beneficial services rendered and knowingly accepted. If a valid express contract covering the subject matter exists there can be no recovery upon a contract implied by law. However, the existence of an express contract does not preclude recovery in quantum meruit for the reasonable value of services rendered and accepted which are not covered by the contract.

Generally, quantum meruit relief is available where for work performed outside the scope of the original contract. Determining what work is outside the scope of the original contract can be tricky, and depends on the precise wording of the contract documents. In *Rheiner v. Varner*, 627 S.W.2d 459 (Tex.App. -- Tyler 1981), the owner sued the general contractor for indemnity for a judgment that a subcontractor secured against the owner based on quantum meruit. In denying relief for the owner, the court found that the owner had directly benefitted from the work and would be unjustly enriched if it forced the general contractor to pay for the work.

In *Angroson Inc. v. Independent Communications, Inc.*, 711 S.W.2d 268 (Tex.App. -- Dallas 1986, writ ref'd n.r.e.), a contractor contracted with an agent of a mall lessee to finish out retail space in the mall. The agent was not authorized to sign the contract, however, and the lessee refused to make full payment. The contractor sued in quantum meruit for its work. The court noted that a

contractor cannot recover in quantum meruit when the work for which recovery is sought is covered by a valid contract. Finding that there was no valid contract (the agent was not authorized to sign it), the court allowed a quantum meruit recovery. The court stated that the elements of proof for quantum meruit are:

> 1. Valuable services were rendered or materials furnished
>
> 2. For the person sought to be charged
>
> 3. Which services and materials were accepted by the person sought to be charged, used and enjoyed by him
>
> 4. Under such circumstances as reasonably notified the person sought to be charged that the plaintiff in performing such services was expecting to be paid by the person sought to be charged.

The court also held that the contractor could recover attorney's fees for quantum meruit under the Texas Civil Practices and Remedies Code.

Quantum meruit is an equitable remedy, which means that the person seeking such relief must have been fair in its dealings. In *Truly v. Austin*, 744 S.W.2d 934 (Tex. 1988), a shopping center developer sued for quantum meruit against joint ventures for services provided in the construction of the shopping center. The Texas Supreme Court held that the developer was not entitled to quantum meruit because when the developer had breached its contract, it prevented itself from completing its own work, causing the value of its services to evaporate. The court declared that a party seeking equitable relief like a quantum meruit recovery must come into court with clean hands.

-(b) Waiver

The most frequently used exception is waiver. If the owner has orally directed that work be done, the owner has probably waived the written change order requirement. Waiver has been defined by one court as:

> A waiver takes place where one dispenses with the performance of something which he has a right to exact, and occurs where one in possession of any right, whether conferred by law or by contract, with full knowledge of the material facts, does or forbears to do something the doing of which is inconsistent with the right or his intention to rely upon. Waiver, of course, is a matter or question of intention.
>
> A waiver, involving as it does the idea of intention, may be express or implied. Waiver may be shown by such conduct as will warrant the inference of the relinquishment of a known right.

Nixon Construction Co. v. Downs, 441 S.W.2d 284, 286 (Tex.Civ.App. -- Houston [1st Dist.] 1969).

In *Travis-Williamson County Water Control & Improvement District No. 1 v. Page*, 358 S.W.2d 158 (Tex.Civ.App. -- Austin 1962), *reversed on other grounds*, the contractor proved that the owner's engineer orally ordered extra work to be done and that the owner accepted the benefit of the work. In *Texas Construction Association, Inc. v. Balli*, 558 S.W.2d 513 (Tex.Civ.App. -- Corpus Christi 1977), a subcontractor successfully proved that it had been specifically ordered to install certain equipment and that it was orally promised that it would be paid extra for the equipment. The court found that a reasonable person would have believed that payment would be made, notwithstanding the contractual requirement for a written change order.

In another case, a contractor instructed a subcontractor to perform certain work. The parties argued whether the work was within the subcontractor's scope of work. The contractor specifically told the subcontractor that the subcontractor would not be paid extra for the work. The court held that the subcontractor's failure to obtain a written change order was fatal to its recovery. *Chambless*

v. JJ Fritch, 336 S.W.2d 200 (Tex.Civ.App. -- Dallas 1960, writ ref'd n.r.e.). Here, the subcontractor probably should have proceeded with the work under a written protest that the work was extra to its subcontract, reserving its rights to complain later about the cost.

-(c) Breach of Contract

If the owner breaches its obligations to the contractor, the contractor may argue that the written change order requirement has been forgiven. In *Board of Regents of University of Texas v. S&G Construction Co.*, 529 S.W.2d 90 (Tex.Civ.App. -- Austin 1975, writ ref'd n.r.e.), the plans and specifications for the project were so defective that they had to be re-engineered on a daily basis. The contractor sought additional compensation. The owner refused to pay since the contractor had not submitted claims for extra work and received change orders. The court held that the contractor could recover without written change orders since the owner had breached the contract by failing to provide the plans and specifications necessary for the completion of the project.

In *North Harris v. Fleetwood Construction Co.*, 604 S.W.2d 247 (Tex.Civ.App. -- Houston [14th Dist.] 1980, writ ref'd n.r.e.), the contractor encountered a differing site condition and notified the architect as it was contractually required to do. The owner ignored the differing site condition and directed the contractor to continue to work. The contractor complied and incurred considerable additional expense without seeking a change order for the extra work. When the contractor sued for the extra cost, the owner contended that the contractor had failed to follow the contract by not seeking a change order. The court found for the contractor and held that the owner's failure to acknowledge the differing site condition was a breach of contract on its part, which waived the niceties of the contractual change order procedure.

-(d) Oral Contract

Under this theory, the parties modify or supplement the original contract (which required written change orders for extra work) with one which does not. The same facts may give rise either to a quantum meruit or oral contract recovery, if the work has been discussed but the owner has failed to pay. The main difference between the two theories is that the measure of recovery for quantum meruit is the reasonable value of labor and material provided, while the measure for oral contract is the agreed upon price or an amount set out in the original contract for changes. See, *University State Bank v. Gifford Hill Concrete Corp.*, 431 S.W.2d 561, 574 (Tex.Civ.App. -- Fort Worth 1968, writ ref'd n.r.e.); and *Union Building Corp. v. J&J Building & Maintenance*, 578 S.W.2d 519, 521-22 (Tex.Civ.App. -- Houston [14th Dist.] 1979, writ ref'd n.r.e.).

-(e) Promissory Estoppel

Promissory estoppel is an equitable, non-contractual remedy available when a contractor detrimentally relies on promises made by the owner or designer under circumstances where the owner reasonably should have foreseen that the representations would have induced such reliance. For example, say an owner directs the contractor to proceed with extra work with a promise that a change order will be issued, the contractor then does the work, and no change order is issued. The owner would have induced reliance by the contractor in performing the work. The contractor would be able to enforce the owner's promise of a change order under the doctrine of promissory estoppel. Promissory estoppel is similar to waiver, except the proof necessary for the former are slightly easier.

-E. TIME

-1. Project Scheduling and Types

Contractors stand a better chance of staying solvent if they profit from each project. Profits come from maximizing revenue while minimizing cost. Once a contract is signed, the revenue figure is set. The contractor must then focus on cost. In controlling cost, contractors quickly learn that time is money. Contractors pay for labor whether or not the labor is productive. If the contractor's laborers are idle while waiting for access to a work area, the contractor still must pay the laborers, although the laborers are performing no productive work. If the plumbers are in the way of the electricians, the electricians will not be able to work, but will still expect to be paid, if only for their standby time.

To control costs, the scheduling of activities is of the utmost importance. Scheduling must flow in a logical, systematic and efficient manner. The various activities must be coordinated and analyzed for scheduling impact. For example, the electrical wiring must be placed in the walls before the sheet rock is installed. The boxes for the electrical receptacles must be installed before the electricians leave, and the sheet rockers start. Otherwise, the electricians may have to cut open perfectly fine sheet rock to install wiring, or the sheet rockers may have to standby while the electrician completes an area. Either way, costs increase.

The most common method of construction scheduling is the bar chart. The bar chart is sometimes called a Gantt Chart. Henry L. Gantt developed the method in the early 1900's. Bar charts are both easy to use and understand. All of the construction activities are listed along the left column of the chart, with horizontal bars drawn for the time of each of the activities. The time bars indicate when the work will start, how long it will take, and over what periods the work will occur.

The simpleness of the bar chart limits its usefulness. The bar chart generally has no indication as to the interrelationship or interdependence of the activities. Usually, the number of activities shown are limited, with very little detail for specific items of work. Since it is not usually computerized, the bar chart is not readily updated or revised. There generally is no audit trail for updates or revisions.

A more precise method of scheduling is the Critical Path Method, also known as CPM. CPM got its start in the late 1950's. DuPont and Remington Rand developed a technique called Critical Path Planning and Scheduling (CPPS) at about the time the Navy Department and Lockheed developed a Project Evaluation and Review Technique (PERT) for the Polaris project. Modifications of those methods lead to the Critical Path Method of Construction Scheduling.

There are two parts to a CPM schedule -- a logic diagram or network and the schedule itself. The logic diagram is usually hand drawn in the form of an arrow network, a precedence method diagram, or a similar technique to depict graphically the interrelationship and interdependence of each and every construction activity. The arrow network uses small circles, called nodes, and arrows to number and identify an event or activity. All events and activities are assigned to the schedule, with durations assigned for each activity. The links between the events and activities are also noted on the schedule. Once all activities and their durations and logical restraints are shown, there are many different paths from the start of the project to completion. The scheduler can then examine all of the different paths leading from start to finish of the project, and sum the duration times for each activity on each path. The longest duration path is by definition the critical path. The importance of the critical path is that if any activity on the critical path takes one extra day to complete, the project will be delayed by one day.

In a CPM schedule, many of the activities are not on the critical path. If an activity is not on the critical path, then its activity may be lengthened without extending the duration of the project. In other words, if the activity takes an extra day to complete, the delay will not affect the completion date. The number of days that these non-critical activities can be extended with delaying the project is called float. Often, the owner and contractor battle over who owns the float. If the owner owns the float, the owner can make changes or delay non-critical activities without affecting the completion date, and without incurring any delay charges from the contractor.

In *Dawson Construction Co.*, 75-2 B.C.A. (CCH) ¶11,563 (1975), the General Services Board of Contract Appeals allowed the government to use all of the schedule float without having to grant a time extension to the contractor. However, in *Natkin & Co. v. George A. Fuller Co.*, 347 F.Supp. 17 (W.D. Mo. 1972), the court held that float could not be freely used by the owner for changes. While there is debate as to whether the owner and contractor can each use the float cooperatively to expedite project completion, the contractor should own the float. The owner provides fixed start and end dates, and expects the contractor to comply. The contractor then has the obligation to complete within that time and can do so by appropriately managing its activities during the project. If the bid is a lump sum or guaranteed maximum cost, the contractor should have the unrestricted use of float time to use its labor and equipment as the contractor best sees fit. That way, the contractor can minimize its costs and maximize its profits (and pay its lawyers).

-2. Types of Delay

Delay is the increase in time required for completion of a project beyond that originally contemplated by the parties at the time they entered the construction contract. Delays usually result

in additional cost for both the owner and contractor. Delays become especially important when the contract stipulates that time is of the essence. There are several species of delay.

-(a) Excusable Delay

Excusable delay is delay which excuses the contractor's obligation to complete on time by extending the time for contractual performance. A contractor who fails to perform within the contract time, when the contract specifies that time is of the essence, may be liable to the owner for resulting damages and for the contractor's own increased costs of performance. The contractor may be liable for unforeseen delays without any of its own fault unless the delays result from a legal impossibility or commercial impracticability. "It is well-established . . . that supervening circumstances making the performance of a promise more difficult and expensive than originally anticipated is not enough to excuse the promisor." Barnard-Curtiss Co. v. United States, 301 F.2d 909, 912 (Ct.Cl. 1962).

The construction contract may by its own terms absolve the contractor of responsibility to the owner for certain kinds of delay. Excusable delay may arise from causes not expressly addressed in the contract. For a delay not specifically contemplated in the contract to be excused, it normally will fall within one or both of the following categories: (1) the delay to the contractor was caused by the owner or one for whom the owner is responsible; or (2) the risk of the delay was not expressly or impliedly assumed by either party to the contract.

Owner interference is the usual culprit for compensable delays as well as excusable delays. With a compensable delay, the contractor may recover its resulting increased costs from the owner. All compensable delays are also excusable delays. However, not all excusable delays are also compensable delays.

-(1) Acts of God

Typical acts of God which will excuse resulting delay include earthquakes, tornadoes, hurricanes, and floods. Fire may also be an act of God as long as the fire did not result from the contractor's negligence.

-(2) Labor Problems

Delays caused by labor disputes are normally excusable. However, such delays may not be excused if the dispute was foreseeable, or if it was brought about by the contractor's own bad faith labor negotiations. Delays from a general labor shortages or the unavailability of skilled personnel are generally not excusable. Likewise, delays from the loss or unavailability of key supervisory or administrative personnel are not excusable unless they were caused by the owner.

-(3) Acts of the Government

Delays caused by wartime or other emergency restrictions, priority allocations, supervening legislation, or other regulations are excusable. A court order which delays the project is likewise an act of the government which excuses late completion.

-(4) Acts of the Public Enemy

Acts of foreign powers which result in wartime restrictions are a valid basis for excusable delays. Criminal acts may also prompt excusable delays.

-(5) Other Excusable Delays

Other circumstances may give rise to excusable delays. If the contractor encounters an unforeseen subsurface condition, the contractor may be entitled to a time extension even where it is not entitled to additional compensation.

-(b) Contractor Caused Delay

The contractor is liable for delay damages for unexcused delays. The contractor should be given time extensions for all excusable delays before calculating days of delay. If the contractor abandons the project or is terminated, the amount of chargeable delay is calculated by estimating the reasonable period of time for the work to be completed after the contractor left the project. If the contract does not contain a liquidated damages provision, the owner may recover actual damages resulting from the delay. The measure of damages may be the value of loss of use of the project for the duration of the delay, or some other expenses caused by the delay. Loss of use may be lost income from rental or profits from the use of the project. The owner may recover the additional interest payments it made on construction financing during the delay.

-(1) Liquidated Damages

Construction contracts often provide for a fixed sum of dollars per day that the contractor must pay for each day of delay. This liquidated damages provision is enforceable only if the stipulated amount is a reasonable approximation of the probable loss that will be caused by delayed performance and if the damage caused by the delay is difficult or impossible to determine. *Stewart v. Basey*, 245 S.W.2d 484 (Tex. 1952). This test of enforceability is applied by viewing the circumstances as the parties perceived them at the time the contract was made, not when the contract was completed or the damages occurred.

In *Loggins Construction Co. v. Stephen F. Austin State University*, 543 S.W.2d 682 (Tex.Civ.App. -- Tyler 1976, writ ref'd n.r.e.), the contractor agreed to construct a stadium within a certain time. The contract listed liquidated damages of $250 for each day of delay beyond the completion date. The owner stipulated that the purpose of the clause was to entice the contractor to complete the stadium as quickly as possible under pain of paying the liquidated sum of money. The

court held that the liquidated damages provision was an unenforceable penalty. There was no showing that the liquidated damage provision was intended by the parties to constitute any sort of an estimate of losses that could actually be sustained by the owner in case of delayed performance. Even if the intention of the parties was considered, the court found that the liquidated amount bore no reasonable relationship to the harm actually caused by the delayed performance. While the owner's actual damages did not exceed $6,500, the owner withheld $39,500 in liquidated damages.

-(c) Owner Caused Delay

Most contractor claims for delay are based on the common law principle that the parties to a contract have a mutual obligation not to hinder or interfere with the other's performance. Events beyond the owner's control, however, and for which the owner has neither expressly nor impliedly assumed responsibility, will not support a claim for delay damages. For example, in *Banks Construction Co. v. United States*, 364 F.2d 357 (Ct.Cl. 1966), the contractor was delayed due to a flooded job site. The owner controlled drainage ditches which were inadequate to carry away the extraordinary rainfall. The court held that the owner had no obligation to upgrade the ditches, since the owner could not anticipate and was not at fault for the extraordinary rainfall.

The time is of the essence clause imposes on the owner an obligation not to hinder or interfere with the contractor's performance, and entitles the contractor to expect that the owner will cooperate fully with the contractor's efforts to complete on time.

-(1) Delayed or Restricted Site Access

Construction contracts usually require that the contractor commence performance on a specified date or promptly on issuance of a notice to proceed. Courts hold that the specification of a starting date or the issuance of a notice to proceed constitutes an implied warranty that the project

site is prepared and available for performance of the work in accordance with the contract documents, and that the owner is liable to the contractor for damages resulting from a breach of this warranty. See *Plymouth Housing Authority v. Town of Plymouth*, 401 Mass. 503, 517 N.E.2d 470 (1988)(where housing authority contracted for new building, authority was liable for delay where documents selling the parcel were silent as to when old buildings were to be removed). But compare *M.J. Sheridan & Son v. Seminole Pipeline*, 731 S.W.2d 620 (Tex.App. -- 1987)(because hiring company did not represent that it had obtained or would obtain rights of way, hiring company did not breach its contract for failing to provide construction company with a pipeline easement in reasonable time).

-(2) Failure to Coordinate

If the owner reserves the right to retain separate prime contractors for the site, the owner may be liable for failing to properly coordinate the additional prime contractors. In the absence of an agreement to the contrary, the party in the best position to reduce a risk of loss should bear that risk. For this reason, the owner on a multi-prime project normally has an obligation to coordinate and control the operations of all contractors to avoid unreasonable disruption of, or interference with, the operations of any one contractor. The prime contractor owes the same duty to its subcontractors. *Guerini Stone Co. v. P.J. Carlin Construction Co.*, 248 U.S. 334, 39 S.Ct. 102, 63 L.Ed. 275 (1919).

-(3) Defective Plans and Specifications

United States v. Spearin, 248 U.S. 132 (1918), held that when an owner supplies a contractor with detailed plans and specifications, and requires that the contractor follow the plans and specifications, the owner impliedly warrants that those plans are suitable for the intended purpose. If the court finds that such a warranty exists, delays resulting from a breach of this warranty are

compensable delays. (See the discussion above in Section II (A) on the confused state of Texas law on an owner's implied warranties for plans and specifications.)

-(4) Changes in the Work

If the owner makes changes in the work, the contractor can request additional time for such work. If the work does not affect the critical path, the contractor may not be entitled to an extension of contract time. The owner may be responsible for compensating the contractor for its loss of float if such damages can be quantified. If the owner refuses to pay for the contractor's loss of float, the contractor can reserve its rights to additional compensation for delay or impact costs from the owner-directed change. If the owner has directed an excessive number of changes, the contractor may also request damages for the resulting delays and disruptions. *H.T.C. Corp. v. Olds*, 486 P.2d 463 (Colo.App. 1971).

-(5) Delays in Shop Drawing Approvals or in Making Changes

The contractor usually must submit for the owner's review shop drawings detailing the specifics of what or how the contractor plans to build particular components of the project. The owner or its design professional usually has to approve, disapprove, or comment on the shop drawings before the contractor is authorized to proceed with the work. If the owner or its design professional do not timely review and respond to the shop drawings, the contractor may have a claim for an unreasonable delay in shop drawing review.

Similarly, if the owner delays in making changes or selections, the contractor may have a claim for the unreasonable length of time.

-(6) Failure to Make Timely Progress Payments

An unjustified refusal to make timely progress payments warrants abandonment of the contract by the aggrieved party. A contractor who justifiably terminates performance before completion because of the owner's wrongful refusal to make payment is not entitled to recover lost profits on uncompleted work, unless the owner also prevented completion of the work. If the contractor continues working despite the owner's wrongful failure to make timely payments, the contractor will be entitled to recover delay damages which proximately result from the delays in payment.

III. Torts

-A. Errors and Omissions

Design professionals generally obtain errors and omissions insurance to protect themselves from the effects of professional negligence. Many contracts with governmental and private owners require such insurance. Professional negligence is not the same as mere or simple negligence, and involves errors or omissions during the performance of professional duties. Proving professional negligence generally requires expert testimony first to establish the appropriate standard of care, and then a deviation below that standard of care.

In general, expert testimony is required where the "alleged negligence is of such a nature as not to be within the experience of the layperson." *Hager v. Romines,* 913 S.W.2d 733, 735 (Tex. App.–Fort Worth 1995, no writ) (citing *Roark v. Allen,* 633 S.W.2d 804, 809 (Tex. 1982)). Proof of professional negligence requires that a professional similarly licensed offer testimony that the professional's conduct was beneath the standard of care in the profession and that this breach of care was the proximate cause of the damages. *Parkway Co. v. Woodruff,* 901 S.W.2d 434, 445 (Tex.

1995) (citing *Parkway v. Woodruff,* 857 S.W.2d 903, 919 (Tex. App.-Houston [1st Dist.] 1993), *aff'd as modified,* 901 S.W.2d 434 (Tex. 1995)); *Prellwitz v. Cromwell, Truemper, Levy, Parker and Woodsmale, Inc.,* 802 S.W.2d 316, 317-18 (Tex. App.–Dallas 1990, no writ) (court affirmed directed verdict in favor of engineer and architect where expert testimony was excluded because timely designated witnesses were unqualified).

A professional is one who provides professional services, defined broadly as labor and skill that is "predominately mental or intellectual, rather than physical or manual." *Maryland Casualty Co. v. Crazy Water Co.*, 160 S.W. 2d 102, 105 (Tex. Civ. App.–Eastland 1942, no writ). Where there is an agreement to provide professional services, "a cause of action based on the alleged failure to perform a professional service is a tort rather than a breach of contract…a contract for professional services gives rise to a duty by the professional to exercise the degree of care, skill, and competence that reasonably competent members of the profession would exercise under similar circumstances" *Averitt v. PriceWaterhouse Coopers, L.L.P.,* 89 S.W.3d 330, 334 (Tex. App.–Fort Worth 2002, no pet.). Nonetheless, a construction professional's duties may be limited by the particular contract. See, *I.O.I. Systems, Inc. v. City of Cleveland, Texas*, 615 S.W.2d 786, 790 (Tex. Civ. App.–Houston [1st Dist.] 1980, writ ref'd. n.r.e.) ("In contracting for personal services, an architect's or engineer's duty depends on the particular agreement entered into with his employer") (citing *Cobb v. Thomas*, 565 S.W.2d 281 (Tex. Civ. App.–Tyler 1978, writ ref'd n.r.e.)).

-B. Mere or Simple Negligence

A design professional can be negligent without being professionally negligent if the negligence is obvious and apparent to a lay person, and no expert testimony is necessary to establish

the negligence. For example, if an engineer finishes a banana, carelessly discards the peel on the floor and someone slips and falls on the peel, the engineer could be liable to the fallen victim for the damages or injuries caused by mere or simple negligence. No expert testimony as to a professional standard of care would be required. Similarly, if an engineer carelessly drives his car and runs over a person just picking themselves up from slipping on a banana peel, the engineer could be liable for mere or simple negligence.

A negligence cause of action has three elements: (1) a legal duty owed by one person to another, (2) a breach of that duty, and (3) damages proximately caused by the breach. *D. Houston, Inc. v. Love*, 92 S.W.3d 450, 454 (Tex.2002). The threshold inquiry in a negligence case is duty. *Centeq Realty, Inc. v. Siegler*, 899 S.W.2d 195, 197 (Tex.1995).

IV. Statutes

Numerous Texas and federal statutes can impose liability on design professionals for violation of statutory provisions. Design professionals can also be subjected to criminal prosecution for violation of those statutes with criminal penalties. For example, if an engineer were to solicit business from a governmental entity and offer monetary inducements for the privilege, the engineer could be prosecuted for bribery or undue influence. Or, if an engineer's negligence proximately caused the collapse of a hotel walkway (like the one at the Kansas City Hyatt Regency), the engineer could be prosecuted for criminal negligence.

Perhaps the most common source of statutory liability for engineers is the Texas Engineering Practice Act, Texas Occupations Code §§1001.101, et seq. The Engineering Practice Act, and its associated Rules, provides numerous statutory limitations on an engineer's conduct and activities.

-A. Texas Engineering Practice Act Grounds for Disciplinary Actions

The Engineering Practice Act sets bounds for acceptable conduct and prohibited conduct. In a broad stroke, the Act declares that a person may not engage in the practice of engineering unless the person holds a license issued under the Act. *Id*. §1001.301.

The Act prohibits an unlicensed person from using any of the following titles:

(1) "engineer"

(2) "professional engineer"

(3) "licensed engineer"

(4) "registered engineer"

(5) "registered professional engineer"

(6) "licensed professional engineer" or

(7) "engineered"

Id. §1001.301(b).

The Act prohibits a person from receiving any fee or compensation or the promise of any fee or compensation for engaging in the practice of engineering unless the person holds a license issued under the Act. *Id*. §1001.301(d).

The Act does permit certain exempt persons to use the term "engineer" on business cards, or correspondence provided that the person does not offer to the public to perform engineering services. *Id*. §1001.301(f).

In order to secure a license under the Act, an applicant must submit satisfactory evidence to show that the applicant has

(1) graduated from:

(A) an engineering curriculum approved by the board as having satisfactory standing; or

(B) an engineering or related science curriculum at a recognized institution of higher education, other than a curriculum approved by the board under Paragraph (A);

(2) passed the examination requirements prescribed by the board; and

(3) engaged in the active practice of engineering for at least:

(A) four years, if the applicant graduated from a curriculum described by Subdivision (1)(A); or

(B) eight years, if the applicant graduated from a curriculum described by Subdivision (1)(B).

Id. §1001.302(a).

Once the applicant receives a license, the person is required to obtain a seal to stamp plans, specifications, plats or reports. *Id.* §1001.401. The person is prohibited from placing a seal on a document if the person's license has expired or has been suspended or revoked. *Id.* §1001.401(c).

The Act allows public officials to accept a plan, specification, or other related document only if the plan, specification, or other document was prepared by an engineer, as evidenced by the engineer's seal. *Id.* §1001.402.

The Act requires a licensed engineer to use the term "Engineer," "Professional Engineer," or "P.E." in the professional use of the person's name on a sign, directory, listing, document,

contract, pamphlet, stationery, advertisement, signature, or other similar written or printed form of identification. *Id.* §1001.403.

A business entity, including sole proprietorship, firm, partnership, or corporation, may not engage in the practice of engineering unless:

(1) the business entity is registered with the board; and

(2) the practice is carried on only by engineers.

Id. §1001.405(b).

A business entity is prohibited from representing to the public that:

> it is engaged in the practice of engineering under any business name or use or cause to be used the term "engineer," "engineering," "engineering services," "engineering company," "engineering, inc.," " professional engineers," "licensed engineer," "registered engineer," "licensed professional engineer," "registered professional engineer," or "engineered," or any abbreviation or variation of those terms, or directly or indirectly use or cause to be used any of those terms in combination with other words, letters, signs, or symbols as a part of any sign, directory, listing, contract, document, pamphlet, stationery, advertisement, signature, or business name unless:
>
> (1) the business entity is registered under this section;
>
> (2) the business entity is actively engaged in the practice of engineering; and
>
> (3) each service, work, or act performed by the business entity

that is part of the practice of engineering is either personally performed by an engineer or directly supervised by an engineer who is a regular full-time employee of the business entity.

Id. §1001.405(e).

An engineer may perform engineering services part time. *Id.* §1001.405(f).

The Board may allow an unregistered business entity to register without discipline within thirty days of notice by the Board of the registration requirement. *Id.* §1001.405(g).

An accredited engineering school graduate may disclose the person's college degree, and use the term "graduate engineer" on the person's college degree, and use the term "graduate engineer" on the person's stationery or business cards or in personal communications. *Id.* §1001.406(b).

The state or a political subdivision may not construct a public work involving engineering in which the public health, welfare, or safety is involved, unless:

(1) the engineering plans, specifications, and estimates have been prepared by an engineer; and

(2) the engineering construction is to be performed under the direct supervision of an engineer.

Id. §1001.407.

-1. Procedure for Investigation and Hearing

The Board may in the appropriate case issue any of the following disciplinary measures:

(1) deny an application for a license;

(2) revoke, suspend, or refuse to renew a license;

(3) probate the suspension of a license; or

(4) formally or informally reprimand a license holder.

Id. §1001.451.

The Act declares that a person is subject to disciplinary action for:

(1) a violation of this chapter or a board rule;

(2) fraud or deceit in obtaining a license;

(3) a documented instance of retaliation by an applicant against an individual who has served as a reference for that applicant;

(4) gross negligence, incompetency, or misconduct in the practice of engineering; or

(5) a failure to timely provide plans or specifications to the Texas Department of Licensing and Regulation as required by Article 9102, Revised Statutes.

Id. §1001.452.

If a person's license suspension is probated, the Board may require the person to:

(1) report regularly to the board on matters that are the basis of the probation;

(2) limit practice to the areas prescribed by the board; or

(3) continue or review professional education until the person attains a degree of skill satisfactory to the board in those areas that are the basis of the probation.

Id. §1001.4525.

The Board may order a violator to pay restitution to an aggrieved consumer. The amount of restitution may not be more than the money the consumer paid for engineering services and cannot include payment for other damages or estimated harm. *Id*. §1001.4526.

A board member who participated in the investigation of a complaint or in informal settlement negotiations may not be involved in the Board's discussions or voting concerning a complaint. *Id*. §1001.4527.

The Board may review a license holder's status if the Board believes that the license:

> (1) may have been issued a license through fraud or error; or
>
> (2) may constitute a threat to the public health, safety, or welfare.

Id. §1001.453(a).

-2. Reviewing the Types of Disciplinary Actions

The Board may suspend or revoke a license held by a person whose status is reviewed. *Id*. §1001.453(b).

A person affected by the Board's action is entitled to a hearing. *Id*. §1001.454.

A person whose license has been revoked may file suit to annul or vacate the Board's order. The person may file suit in the district court of the county where the person resides or where allegedly offending conduct occurred. *Id*. §1001.455.

The Board may reissue a license to a person whose license has been revoked if the Board has sufficient reason to reissue the license. *Id*. §1001.456.

The Board may impose an administrative penalty on a person who violates the Act or a Board rule. *Id*. §1001.501.

An administrative penalty may not exceed $3,000 for each violation. Each day a violation continues or occurs is a separate violation for purposes of imposing a penalty. *Id*. §1001.502. The amount of the penalty is based on:

> (1) the seriousness of the violation, including:
>
> (A) the nature, circumstances, extent, and gravity of the prohibited act; and
>
> (B) the hazard or potential hazard created to the health, safety, or economic welfare of the public;
>
> (2) the economic harm to property or the environment caused by the violation;
>
> (3) the history of previous violations;
>
> (4) the amount necessary to deter a future violation;
>
> (5) efforts or resistance to efforts to correct the violation; and
>
> (6) any other matter that justice may require.

Id. §1001.502(b).

The Board may assess within the penalty the actual costs of investigating and prosecuting the violation. *Id*. §1001.502(c).

The person fined by the Board is required by the expiration of 30 days to:

> (1) pay the administrative penalty;
>
> (2) pay the penalty and file a petition for judicial review contesting the occurrence of the violation, the amount of the penalty, or both; or

(3) without paying the penalty, file a petition for judicial review contesting the occurrence of the violation, the amount of the penalty, or both.

Id. §1001.503.

Within the 30 day period, a person who has acted under Subsection (a)(3), immediately above, may:

(1) stay enforcement of the penalty by:

(A) paying the penalty to the court for placement in an escrow account; or

(B) giving to the court a supersedeas bond that is approved by the court and that is:

(I) for the amount of the penalty; and

(ii) effective until judicial review of the board's order is final; or

(2) request the court to stay enforcement of the penalty by:

(A) filing with the court an affidavit of the person stating that the person is financially unable to pay the penalty and is financially unable to give the supersedeas bond; and

(B) giving a copy of the affidavit to the executive director by certified mail.

Id. §1001.503(b).

If the person does not pay the administrative penalty, and enforcement is not stayed, the Board may refer the matter to the Texas Attorney General for collection. *Id*. §1001.504.

A court may uphold or reduce the amount of the administrative penalty. *Id*. §1001.505.

If a court reduces or vacates the administrative penalty, the court is required to:

> (1) order the appropriate amount, plus accrued interest, be remitted to the person if the person paid the penalty; or
>
> (2) order the release of the bond:
>
> (A) if the person gave a supersedeas bond and the penalty is not upheld by the court; or
>
> (B) after the person pays the penalty if the person gave a supersedeas bond and the penalty is reduced.

Id. §1001.506(a).

The Board's actions under the Act are subject to Chapter 2001 of the Texas Government Code. The Board is required to adopt rules for imposing an administrative penalty. The rules are required to conform to Chapter 2001, of the Texas Government Code. *Id*. §1001.508.

The Board may sue to enjoin a person from violating the Act or the Board's rules. Suit must be filed in Travis County district court. *Id*. §1001.551.

A person commits a Class A misdemeanor and criminal penalties may be imposed if the person:

> (1) engages in the practice of engineering without being licensed or exempted from the licensing requirement under this chapter;

(2) violates this chapter;

(3) presents or attempts to use as the person's own the license or seal of another; or

(4) gives false evidence of any kind to the board or a board member in obtaining a license.

Id. §1001.552.

Public officials are required to report violations of the Act to the proper authorities. *Id*. §1001.553.

The Texas Attorney General is the Board's legal advisor. *Id*. §1001.555.

The Board may prepare written advisory opinions about an interpretation of the Act or concerning a hypothetical factual situation. *Id*. §1001.601.

The Board is required to compile annually a summary of its opinions in a single reference document that is available on the Internet. *Id*. §1001.602.

It is a defense to prosecution or imposition of a civil penalty that a person reasonably relied on a written advisory opinion of the Board relating to:

(1) the provision of the law the person is alleged to have violated; or

(2) a fact situation that is substantially similar to the fact situation in which the person is involved.

Id. §1001.604.

-B. BOARD RULES

The Texas Board of Professional Engineers has adopted rules to interpret and implement the Engineering Practice Act's provisions.

For example, if one seeks an advisory opinion, Rule 131.103 sets out the requirements. Among other things, the request must be in writing, and describe a specified factual situation, that may be real or hypothetical.

Chapter 139 contains the Enforcement Rules. Rule 139.13 provides the details for filing a complaint. Perhaps the easiest way to file a complaint is to visit the Board's website at www.tbpe.state.tx.us.

Upon receipt of a complaint, the Board will assign a complaint number, and review the complaint for sufficiency. Rule 139.15. If the Board determines that a potential violation exists, the Board staff will proceed with an investigation. If the Board staff concludes that the complaint lacks merit, the Board staff will recommend to the executive director that the investigation be closed and the complaint dismissed. If the executive director concurs, the Board will notify the complainant, and close the investigation. *Id*.

If a potential violation exists, and the Board has authority and jurisdiction for the complaint, the Board staff is required to initiate disciplinary proceedings against the offending person. The Board will set priorities for the complaints received, with the highest priority reserved for alleged action that could potentially harm the public. Complaints rating the highest priority include those alleging incompetence, gross negligence, plan stamping, or practicing without a license. The Board staff is required to return a preliminary determination to the executive director and complainant within 45 days of receiving a high priority complaint. *Id*.

Rule 139.17 concerns investigating a complaint. Rule 139.17 requires the Board staff to investigate complaints and provides authority to subpoena information, among other things. The rule allows the respondent an opportunity to respond to the complaint. If the Board intends to dismiss the complaint, the Board staff will inform the complainant of the rationale prior to reporting the dismissal to the Board. Withdrawal of a complaint is not a reason to terminate or disrupt an ongoing investigation. At least quarterly during the investigation of the complaint, the Board is required to notify the parties involved as to the complaint's status, unless notice would jeopardize an undercover investigation. *Id*.

Rule 139.19 concerns the final resolution of a complaint. Once an investigation is completed, the Board staff will present to the executive director a report of investigation and recommendation of final resolution of the complaint. If sufficient evidence exists to substantiate a violation of the Act or Board Rules, the Board will proceed with enforcement, including, without limitation,

> (1) enter into an agreement of voluntary compliance;
>
> (2) agree to informal consent order or agreed Board order with administrative penalty and compliance requirement;
>
> (3) referral of injunctive or criminal actions to the proper authorities;
>
> (4) referral of a final order to the State Office of Administrative Hearings; or
>
> (5) other action as provided by law.

Id.

If sufficient evidence does not exist, the Board staff will recommend that the Board dismiss the complaint. *Id*.

The Board is required to keep statistics on the number of complaints filed and resolved, and the length of time necessary to resolve the complaints. See Rule 139.21.

The Board is empowered to retain technical consultants under Rule 139.23.

Rule 139.31 pertains to enforcement actions for violations of the Act. Under this Rule, the Board may seek any one or more of the following:

(1) revocation of a license;

(2) suspension of a license;

(3) probation of a suspended license pursuant to subsection (m) of this section;

(4) refusal to renew a license;

(5) issuance of a formal or informal reprimand;

(6) notice to cease and desist;

(7) voluntary compliance agreement; or

(8) assessment of an administrative penalty under Subchapter K the Act.

Id. 139.31(a).

All Board actions take the form of an order, and are permanently recorded and made available to the public. Except for an informal reprimand, all enforcement actions are published in the Board newsletter and on the Board website. *Id*. §139.31(b).

If the Board determines that a violation of the Act or Rules has occurred, the executive director will notify the person or entity (called the "respondent") by personal service or certified mail of the alleged violation. The respondent is allowed to present rebuttals, arguments or evidence to the Board prior to initiation of disciplinary proceedings. If the respondent does not respond, the Board may proceed with a contested case hearing. *Id*. §139.31(c).

If the Board decides to pursue an alleged violation, the respondent has an opportunity to resolve the allegations informally before the Board proceeds with a formal contested case hearing. The parties may agree to a consent order. If the respondent so requests, the Board will schedule an informal conference to allow the respondent to present additional evidence and discuss details of the allegation. Following the informal conference, the Board's committee can recommend: (A) dismissal; (B) proposed agreed Board order for disciplinary action; or (C) scheduling of a formal hearing.

Rule 139.35 concerns Sanctions and Penalties. The minimum administrative penalty is $100 per violation. The maximum administrative penalty is $3,000 per violation. Each day a violation continues or occurs is considered a separate violation for the purpose of assessing an administrative penalty. The Board's final order will set out the allegations and disciplinary actions. The severity of the disciplinary action will be based on the following factors:

(1) the seriousness of the violation, including:

(A) the nature, circumstances, extent, and gravity of the prohibited act; and

(B) the hazard or potential hazard created to the health, safety, or economic welfare of the public;

(2) the history of prior violations of the respondent;

(3) the severity of penalty necessary to deter future violations;

(4) efforts or resistance to efforts to correct the violations;

(5) the economic harm to property or the environment caused by the violation; and

(6) any other matters impacting justice and public welfare, including any economic benefit gained through the violations.

Id. §139.35(a).

The Board's table of suggested sanctions against license holders for specific violations follows:

Classification	Violation	Citation	Suggested Sanctions
Engineering Misconduct	Gross negligence	§ 137.55(a), (b)	Revocation/$3,000.00
	Incompetence; includes performing work outside area of expertise	§ 137.59(a), (b)	3 year suspension/$3,000.00
	Misdemeanor or felony conviction without incarceration relating to duties and responsibilities as a professional engineer	§ 139.43(b)	3 year suspension/$3,000.00
	Felony Conviction with incarceration	§ 139.43(a)	Revocation/$3,000.00
Licensing	Failure to return seal imprint and/or portrait	§§ 133.95(e), (f); 137.31(a)	Reprimand/$500.00
	Fraud or deceit in obtaining a license	§§ 1001.452(a)(2), 1001.453	Revocation/$3,000.00
	Retaliation against a reference	§ 137.63(c)(3)	1 year probated suspension / $1,500.00
	Enter into a business relationship which is in violation of 137.77(Firm Compliance)	§ 137.51(d)	1 year probated suspension / $1,000.00
Ethics Violations	Failure to report change of address or employment	§ 137.5	Reprimand/$500.00
	Failure to respond to Board communications	§ 137.51(c)	6 month probated suspension / $1,000.00
	Failure to engage in professional and business activities in an honest and ethical manner	§ 137.63(a)	2 year probated suspension / $2,500.00
	Misrepresentation; issuing oral or written assertions in the practice of engineering that are fraudulent, deceitful, or misleading	§ 137.57(a), (b)	2 year suspension/$2,500.00
	Conflict of interest	§ 137.57(c), (d)	2 year suspension / $2,500.00
	Inducement to secure specific engineering work or assignment	§ 137.63(c)(4)	2 year probated suspension / $2,500.00
	Accept compensation from more than one party for services on the same project	§ 137.63(c)(5)	2 year probated suspension / $2,500.00
	Solicit professional employment in any false or misleading advertising	§ 137.63(c)(6)	1 year probated suspension / $2,500.00
	Offer or practice engineering while license is expired or inactive	§§137.7(a), 137.13(g)	1 year probated suspension / $500.00
	Failure to include "inactive" representation with title while in inactive status	§137.13(f)	Reprimand/$500.00
	Failure to act as a faithful agent to their employers or clients	§ 137.63(b)(4)	1 year probated suspension / $1,500.00
	Reveal confidences and private information	§ 137.61(a), (b), (c)	Reprimand / $1,500.00
	Attempt to injure the reputation of another	§ 137.63(c)(2)	1 year probated suspension / $1,500.00
	Retaliation against a complainant	§ 137.63(c)(3)	1 year probated suspension / $1,500.00
	Aiding and abetting unlicensed practice or other assistance	§§ 137.63(b)(3), 137.63(c)(1)	3 year probated suspension / $3,000.00
	Failure to report violations of others	§ 137.55(c)	Reprimand / $1,500.00
	Failure to consider societal and environmental impact of actions	§ 137.55(d)	Reprimand / $1,500.00
	Failure to prevent violation of laws, codes, or ordinances	§ 137.63(b)(1), (2)	Reprimand / $1,500.00
	Failure to conduct engineering and related business in a manner that is respectful of the client, involved parties and employees	§ 137.63(b)(5)	1 year probated suspension / $1,500.00
	Competitive bidding with governmental entity	§ 137.53	Reprimand / $1,500.00
	Expressing an opinion before a court or other public forum which is contrary to generally accepted scientific and engineering principles without fully disclosing the	§ 137.59(c)	2 year suspension / $2,500.00
	Falsifying documentation to demonstrate compliance with	§ 137.17(p)(2), (3)	2 year suspension / $2,500.00

	Action in another jurisdiction	§ 137.65(a) and (b)	Similar sanction as listed in this table if action had occurred in Texas
Improper use of Seal	Failure to safeguard seal	§ 137.33(d)	Reprimand / $1,000.00
	Failure to sign, seal, date work	§§ 137.33(e), (f), (h), 137.35(a), (b)	Reprimand / $500.00
	Alter work of another	§§ 137.33(I), 137.37(3)	1 year probated suspension / $1,500.00
	Sealing work not performed or directly supervised by the professional engineer	§ 137.33(b)	Reprimand / $1,000.00
	Practice or affix seal with expired or inactive license	§§ 137.13(h), 137.37(2)	1 year probated suspension / $500.00
	Practice or affix seal with suspended license	§ 137.37(2)	Revocation / $3,000.00
	Sealing work endangering the public	§ 137.37(1)	Revocation / $3,000.00
	Work performed by more than one engineer not attributed to each engineer	§ 137.33(g)	Reprimand / $500.00
	Improper use of standards	§ 137.33(c)	Reprimand / $500.00

Id. §139.35(b).

The Board's table of suggested sanctions against a person or business entity for specific violations of the Act or Rules follows:

VIOLATION	CITATION	SUGGESTED SANCTION
		First Occurrence/Subsequent Occurrences
Use of "Engineer" title	§§ 1001.004(c)(2)(B)(C); 1001.301(b)(1)	Voluntary compliance Notice to Cease and Desist & Injunctive / Criminal and $1,000.00
Use of "P.E." designation, or claim to be a "Professional Engineer"	§ 1001.301(b)(2)-(6), (c), and (e)	Notice to Cease and Desist and $1,500.00Injunctive / Criminal and $3,000.00
Offer or attempt to practice engineering (e.g., through solicitation, proposal, contract, etc.)	§§ 1001.004(c)(2)(A); 1001.301(a), (c)-(e); 1001.405	Notice to Cease and Desist and $1,500.00Injunctive / Criminal and $3,000.00
Representation of ability to perform engineering (e.g., telephone or HUB listing, newspaper, or other publications, letterhead, Internet, etc.)	§ 1001.405(e)	Voluntary compliance Notice to Cease and Desist and $500.00
Use of word "engineer" or any variation or abbreviation thereof under any assumed, trade, business, partnership, or corporate name	§ 1001.405(e)	Voluntary compliance/Injunctive / Criminal and $3,000.00
Unlicensed practice of engineering	§§ 1001.004(c)(2)(A); 1001.301(a), (c)-(e); 1001.405; §§137.51(e), 137.77(a)	Notice to Cease and Desist and $2,000.00Injunctive / Criminal and $3,000.00

Id. §139.35(c).

The Board's table of suggested sanctions against a person or business entity for violations of the Act or Rules involving firm/sole proprietorship registration follows:

SUGGESTED SANCTION				
VIOLATION	**CITATION**	**FIRST OCCURRENCE**	**SECOND OCCURRENCE**	**THIRD OCCURRENCE**
Offer and perform consulting engineering services without being registered	§ 1001.405; §137.77(a), (c), (e)	Voluntary Compliance. If not corrected within 30 days, $250.00	$500.00	$750.00
Offer and perform consulting engineering services while registration was expired	§ 1001.405; §137.77(a), (c), (e)	$500.00	$750.00	$1,200.00
Offer only (no consulting engineering services were performed) without being registered or while registration was expired	§ 1001.405; §137.77(a), (c), (e)	$100.00	$500.00	$1,000.00

Id. §139.35(d).

The Board's table of suggested sanctions against a governmental entity and/or its representatives for violations of the Act or Rules follows:

VIOLATION	CITATION	SUGGESTED SANCTION
		FIRST OCCURRENCE/SECOND OCCURRENCE
Failure to engage a professional engineer in the construction of any public work involving professional engineering	§ 1001.407(1)	$1,000.00/$2,500.00
Accepting engineering plans, specifications and estimates that were not prepared by a professional engineer	§ 1001.402	$500.00/$2,500.00
Failure to ensure that the engineering construction is performed under the direct supervision of a professional engineer	§ 1001.407(2)	$500.00/$2,500.00

Id. §139.35(e).

A license holder whose license expires for non-payment of renewal fees continues to be subject to all provisions of the Act and Rules governing license holders until the license is revoked by the Board or becomes non-renewable. *Id.* §139.41.

The Board will revoke the license of a license holder if the holder becomes incarcerated as a result of (1) a felony conviction; (2) violation of felony probation or parole; or (3) rejection of mandatory supervision after licensure as a professional engineer. The Board may take disciplinary action against a license holder if the holder is convicted of a misdemeanor or a felony without incarceration if the crime directly relates to the license holder's duties and responsibilities as a professional engineer. If a holder's license has been revoked, the holder may apply for a new license upon release from incarceration. *Id.* §139.43.

In addition to or in lieu of an administrative penalty, the Board may order a license holder to pay restitution to a consumer as a result of an agreement resulting from an informal settlement

conference. The amount of the restitution may not exceed the amount paid by the consumer to the person for a service regulated by the Act. *Id.* §139.45.

As part of a disciplinary action, the Board may prescribe conditions of probation. The probation conditions may require the license holder to submit such things as client lists, job assignments, designs, proof of continuing education, etc. The Board may restrict the area of practice as a probation condition. The Board may require the license holder to practice under the supervision and mentorship of another professional engineer. The Board may require the license holder to obtain additional continuing education and may prescribe formal classroom study, workshops or seminars. Failure to comply with probation conditions results in a lifting of probation and suspending of the engineering license for the remainder of the suspension period. *Id.* §139.47.

Contested case hearings are conducted by the State Office of Administrative Hearings in accordance with the Texas Administrative Procedures Act, Chapter 2001 of the Texas Government Code, and Title 1, Chapter 155, of the Texas Administrative Code. See Rule 139.61.

-C. CASE LAW

Gray v. Blau, 223 S.W.2d 53 (Tex. Civ. App.–Beaumont 1949)

Blau signed a contract with a general contractor to serve as a consulting engineer for the construction of a football stadium for the Nederland Independent School District. The general contractor refused to pay Blau since Blau had not registered with the State Board of Registration for Professional Engineers, and had never applied for such registration. The general contractor contended that without registration, Blau lacked the capacity to contract as an engineer and the contract for engineering services was void. Blau argued that the general contractor was estopped to

claim the contract was illegal since the contractor had received all the benefits of Blau's services under the contract. Blau also argued that since the school district had retained an architect to prepare plans and specifications for the project and to supervise the job for the school district, Blau did not need a license. *Id*. at 56.

At trial, the jury rendered a judgment in favor of Blau. The general contractor appealed, still contending that its contract with the ersatz engineer was illegal. *Id*. at 56-57.

On appeal, the appellate court observed that Blau was suing on his contract, and on his contract his recovery must stand or fall. *Id*. at 58-59. The court held that Blau's contract for engineering services was within the Engineering Practice Act, and that since he was not a registered engineer, the could not recover on his contract. *Id*. at 59.

On appeal, Blau argued that since the supervision and control of the stadium construction was under the direction of the owner's registered engineer and architect, Blau was not required to be a registered engineer. The court rejected the argument because Blau's employment as an engineer for the general contractor did not place him under the control of the owner's architect. The court noted that a supervising engineer retained by a general contractor owes his duty to his employer, the contractor, and that Blau's duties were separate from the owner's architect. *Id*. at 59.

The court finally rejected Blau's argument that the jury had decided the fact question of illegality, holding that the construction of the contract and the application of law thereto was a question of law for the courts. *Id*. at 59.

Tackett v. State Board of Registration for Professional Engineers, 466 S.W.2d 332 (Tex. Civ. App. –Corpus Christi 1971)

The State Board of Registration for Professional Engineers filed suit against Carl Tackett d/b/a Television Engineering Company, seeking to enjoin Tackett from violating the Texas Engineering Practice Act by using the term "engineering" in his trade name. The trial court granted the Board's motion for summary judgment and entered a permanent injunction against Tackett prohibiting the use of the term "engineering" in his advertising and business. *Id*. at 333.

The appellate court found that Tackett was not an engineer and had only graduated from high school. Tackett used the name "Television Engineering Company" in advertising published by radio, television, newspaper, painted signs, telephone directory, and business directory. Tackett's delivery and service trucks had his trade name painted on the sides. He had no licensed engineers working for him. *Id*. at 334.

The court observed that the Texas Engineering Practice Act was intended to protect the public. The Legislature declared that the practice of engineering was a learned profession to be protected and regulated as such. The court noted that the engineer in this State shall be held accountable to the State and to members of the public by high professional standards in keeping with the ethics and practices of the other learned professions in this State. In order to maintain these high standards set by the Legislature, the Board is entitled to seek protection from Texas courts from those who would violate the law. The appellate court then held that the trial court was correct in issuing the permanent injunction. *Id*. at 335.

Seaview Hospital, Inc. v. Medicenters of America, Inc., 570 S.W.2d 35 (Tex. Civ. App.–Corpus Christi 1978)

Medicenters was a general contractor that primarily built hospitals. Medicenters would arrange for the preparation of plans and specifications for the proposed hospital. Medicenters did not itself undertake architectural or engineering services, but procured such services from duly qualified and licensed architects and engineers. Medicenters included the cost of design services in its bid to build the hospital. *Id*. at 36.

Seaview Hospital solicited a turnkey bid from Medicenters. The parties did not enter into a construction contract, but did agree for Medicenters to undertake architectural and engineering services. Medicenters completed design phases I and II, and was paid for the services. However, after Medicenters completed design phase III, Seaview abandoned the project and refused to pay Medicenters for phase III. *Id*. at 37.

Seaview defended against Medicenters' claims by contending that Medicenters and its employees were not licensed in Texas to practice either architecture or engineering. As a result, Seaview argued that its contract with Medicenters was illegal and void under Texas law. *Id*. at 38.

Medicenters countered that it was not illegal in Texas for a corporation to enter into a contract which in part required the corporation to arrange for but not actually perform the architectural and engineering services incident to a turnkey development contract. Medicenters stated that its contract simply required it to provide professional design services, not actually perform such services. *Id*. at 38-39.

The appellate court noted that a contract for engineering services to be performed by a person who is prohibited from practicing engineering in Texas is void and unenforceable. The court observed that the purpose of the statute is to prevent the unlicensed, unauthorized practice of engineering in Texas. *Id*. at 39.

The court found that neither Medicenters nor any of its employees actually performed any architectural or engineering services for the project. The court found that the preparation of plans and specifications were performed by persons not in Medicenters' employ who were duly licensed to practice architecture or engineering in the State of Texas. *Id*. at 39.

The court held that a general contractor is not precluded from entering into a contract with an owner which provides that the contractor will engage or hire architects and engineers duly licensed in Texas to prepare plans and specifications for a construction project. The court held that the agreement between Medicenters and Seaview was valid and enforceable, and that Seaview owed compensation to Medicenters for the professional design services that Medicenters secured for Seaview. *Id*. at 40.

Texas State Board of Registration for Professional Engineers v. Dalton, Hinds & O'Brien Engineering Co., 382 S.W.2d 130 (Tex. Civ. App.–Corpus Christi 1964)

The Texas State Board of Registration for Professional Engineers sought a permanent injunction against Defendants based on alleged violations of the Engineering Registration Act. The Board specifically complained of a brochure which the Board alleged tended to deceive the public and to violate the Act. However, the Defendants ceased using the brochure about a year and a half before the Board filed suit and about four years before the trial. *Id*. at 132-34.

The appellate court upheld the trial court's rulings in favor of the Defendants finding that under the circumstances, there was no violation of the Act at the time that the Board filed suit. *Id*. at 134.

Frequently Asked Questions Regarding Enforcement

How does an individual know when a P.E. (Professional Engineer) is required?

Refer to Sections 1001.053 and 1001.056 of the Texas Engineering Practice Act.

2. When public money and structural, electrical or mechanical engineering is involved and the contemplated expenditure for the project exceeds $8,000;

4. When public money and electrical or mechanical engineering is not involved and the contemplated expenditure for the project exceeds $20,000;

6. Private dwellings that are exceeding eight units for one-story buildings or exceeding four units for two-story buildings;

8. Other buildings having more than one story and containing a clear span between supporting structures greater than 24 feet on the narrow side and having a total floor area over 5,000 square feet. Section 1001.056

How do I find out if a license holder has had any complaints filed against him/her?

Contact the Board office and ask if a complaint has ever been filed against a professional engineer, an unlicensed person, or a firm offering to perform engineering services in Texas.

How do I sign my seal?

License holders should sign their name either above or below the seal so that the signature does not obscure the license holder's name and license number.

When do I seal a document?

License holders should affix their engineer seal, signature, and date of execution to all documents containing the final version of any engineering work. Refer to Board Rule 137.31 and 137.33.

Can I use a computer-generated seal?

Yes. The instructions for the use of computer-generated seals are set forth in Board Rule 137.31, 137.33 and 137.35.

How should a computer-generated seal be used?

Computer-generated seals may be of a reduced size provided that the engineer's name and number are clearly legible. Refer to Board Rule 137.31(c).

If not accompanied by an original signature and date; the following text or similar wording shall accompany computer-generated seals! "The seal appearing on this document was authorized by (Example: Leslie H. Doe, P.E. 0112) on (date)." Refer to Board Rule 137.35(a).

Can I submit a bid for an engineering project?

A license holder can only submit a competitive bid on private engineering projects. A license holder cannot submit a competitive bid on public projects like projects for any city, county, state, or independent school district.

Does the board register firms?

Yes. Effective January 1, 2000, the Board began registering firms. You can obtain a Firm Registration Application by contacting the Board office or downloading the application from our web site. If the engineer is practicing engineering as a sole proprietor, he/she must also register as a firm. Section 1001.405

What title can I use if I'm a graduate engineer?

Graduates of all public universities recognized by the American Association of Colleges and Universities have the right to disclose any college degrees received and use the title "Graduate Engineer" on stationery, business cards, and personal communications of any character. A graduate engineer who is employed by a registered firm and who is supervised by a licensed professional engineer may use the term "engineer". Refer to the Texas Engineering Practice Act, Section 1001.406.

Can I perform land surveying or architecture as an engineer?

You may perform engineering surveys that includes all survey activities required to support the sound conception, planning, design, construction, maintenance, and operation of an engineered project, but does not include the surveying of real property and other activities regulated under the Professional Land Surveying Practices Act (Article 5282C, Vernon's Texas Civil Statues). Likewise, the Texas Board of Architectural Examiners governs the practice of architecture.

Do I need a license to be an expert witness?

No. Expert witnesses, as long as they are preparing documents or evidence for court, are exempted from licensure. Refer to the Texas Engineering Practice Act, Section 1001.004(e)(2).

Do I need to notify the board if I believe that someone has violated the Texas Engineering Practice Act or Board rules?

License holders shall first notify involved parties or the Board of any engineering decisions or practices that might endanger the health, safety, property, or welfare of the public. When, in an engineer's judgment, any risk to the public remains, unresolved, that engineer shall report any fraud, gross negligence, incompetence, misconduct, unethical or illegal conduct to the Board or proper civil or criminal authorities. Refer to Board Rule 137.55(c).

What do I do when I'm asked to correct or complete a project begun by another engineer?

An engineer, as a third party, may alter, complete, correct, revise, or add to the work of another engineer when engaged to do so by a client, provided: the client furnishes the documentation of such work submitted to the client by the first engineer. The second engineer of the engagement immediately upon acceptance of the engagement notifies the first engineer in writing. Any work altered, completed, corrected, revised, or added to shall have a seal affixed by the second engineer. The second engineer then becomes responsible for any alterations, additions or deletions to the original design including any effect or impact of those changes on the original engineer's design. Refer to Board Rule 137.33(l).

Can an architect perform the engineering for a building that is over 5,000 square feet?

No. Engineering for buildings that are in excess of 5,000 square feet must be performed by a licensed engineer in Texas. Refer to the Texas Engineering Practice Act, Sections 1001.056.

If I am licensed in another state, can I use the P.E. title in Texas?

No. You must be a license holder in Texas to use the P.E. designation in Texas. Refer to the Texas Engineering Practice Act, Sections 1001.004 and 1001.301.

Can an engineer who is licensed as a civil engineer practice in mechanical engineering or similar disciplines?

Yes. A license holder may perform any engineering assignment for which the engineer is qualified by education or experience to perform adequately and competently. Refer to Board Rule 137.59(b).

How do I file a complaint?

Complaints shall be submitted on complaint forms provided by the Board or in a written format that includes a description of the violation, supporting information and factual evidence, names and addresses of witnesses, sources of other pertinent information, and what section of the Act or Board rule(s) have been violated. Refer to Board Rule 139.13.

Are disciplinary actions against a license holder open to the public?

Yes. Disciplinary actions against a license holder, except for an informal reprimand, are published on our web site.

Can a license holder receive a disciplinary sanction and administrative penalty?

Yes. The suggested sanctions and administrative penalties against license holders are set forth in Board Rule 139.35(b).

If I am not a licensed engineer and I am found to be illegally practicing engineering, can I be sanctioned by the Board?

Yes. The suggestion sanctions and administrative penalties against non-licensed individuals are set forth in Board Rule 139.31(a) and 139.35(c).