

PDHonline Course R128 (2 PDH)

The Proper Use of Texas Professional Seals

Instructor: Randall W. Whitesides, PE

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5272 Meadow Estates Drive Fairfax, VA 22030-6658 Phone: 703-988-0088 www.PDHonline.com

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The Proper Use of Texas Professional Seals

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Introduction and Overview

In order to properly use professional seals in Texas, licensed professionals are required to be familiar with specific practice regulations. These regulations are contained in a collection of laws known as the Texas Statutes. The Texas Statutes are further subdivided into Subtitles and Chapters,

and when necessary, Subchapters and Sections. The primary law in which we have interest, *i.e.*, that deals with sealing and certification, is contained in the Occupations Code, Title 6, *Regulation of Engineering, Architecture, Land Surveying, and related practices*, and the following specific Chapters:

- 1. Chapter 1001, Engineers
- 2. Chapter 1051, Architects
- 3. Chapter 1052, *Landscape Architects*
- 4. Chapter 1053, *Interior Designers*
- 5. Chapter 1071, Land Surveyors



Texas State House

A collection of laws known as the *Texas Administrative Code* (TAC) adds detail, and is intended to implement the Texas Statue Chapters listed above. The TAC is divided into Titles. Of interest to us is Title 22, Examining Boards. Code Title 22 is divided into Parts. The implementing Parts for the Statue Chapters are:

- 1. Part 1, Texas Board of Architectural Examiners
- 2. Part 6, Texas Board of Professional Engineers
- 3. Part 29, Texas Board of Professional Land Surveying

A specific Administrative Code is often referred to as a *Rule or Regulation*. To reduce clutter within the body of the course content, no further literal enumeration will be made to the various Chapters and Code rules; only reference numbers will be used.

The technical professions of Architecture, Landscape Architecture, and Interior Design are regulated by the Texas Board of Architectural Examiners. Professional Engineers and Professional Land Surveyors are regulated by their respective so named boards. Before the advent of the World Wide Web the various Boards utilized mailed periodicals to officially disseminate information related to the regulated professions. Official information is now periodically published over the Internet through Board newsletters. These may include statutory requirements, statutory changes, Rules, Rule changes, proposed or pending Rule changes, licensing requirements, license renewal procedures, Board action, Board interpretative rulings or guidelines, disciplinary action, and ethical or professional standards.

This course is an integration of the specific sections of several Texas laws and several past Board newsletters that pertain to the use of professional seals. The course is not intended as a replacement or substitution for official information sources that provide understanding of the laws, rules, and regulations governing the use of professional seals in Texas. Hopefully it provides a useful supplement that reflects common professional practice issues and concerns regarding their use. The applicable regulations are listed in the **Reference Section**; they supersede any information contained in this course.

Even though the technical design professions are regulated by separate Boards, the prescribed acceptable methods of professional seal use are relatively consistent among all of the Texas professions. There are, however, specific minor differences and these will be noted. The three professions regulated by the Texas Board of Architectural Examiners have identical requirements for seal use.

While every effort has been made to insure the accuracy and completeness of the information presented in this course, the reader is reminded that the Code and Rules are subject to periodic revision. Consequently, while the course's base content is relatively constant, specifics are subject to variation. The reader of this course is strongly encouraged to periodically review the various regulations in order to stay informed. This is easily accomplished because the required information and the regulating Boards are readily accessible on the World Wide Web; a listing, with URLs, is provided in the Additional Resources section. Nothing herein has the force of law or the intention to force any licensed professional to comply with the content.

History 1

The word "seal" stems from the act of closing. Originally, this was the closing, or securing if you will, of a document for the purpose of security and privacy. While the original sealing methods of old could not prevent unauthorized access, an unbroken seal did at least give the intended recipient of the document an indication of its security. Over time, the seal evolved into a representation of indisputable



authenticity, just as a signature is accepted in the world today. The emperor of China used his thumb print when sealing documents in 3000 B.C. The use of seals is mentioned in the Old Testament, where Jezebel used Ahab's seal to counterfeit important documents. Royalty and governments used their own seal to affix to proclamations to give them their authoritative stamp of approval. The first Great Seal of England was that of Edward the Confessor, impressions of which can still be found. During this time, almost everyone had their own seal. While most people had just one, royalty would own several, including their "Great" seal, as well as seals for all their courts and officials. It was common practice to destroy the seal when the owner died, which is the reason so few original seals are still in existence today. Official seals of

the Crown were often handed over with great ceremony, and in Medieval Times the size and motif of the seal conveyed an image of the status of its owner. Early motifs were equestrian or heraldic in nature, or showed the owner in various pursuits like hunting or doing battle. William the Conqueror used an equestrian seal showing him armed and ready for battle. In Medieval Times, betrothals were prearranged; therefore true words of love were secretly written and the envelope's contents secured by a wax seal, so that the recipient could be assured that their passion would be unknown to others.

Background of the Seal in the U.S.

The first Seal of the United States was created by Benjamin Franklin, John Adams and Thomas Jefferson in July 1776, shortly after the Declaration of Independence was signed. Congress realized the

necessity of such a seal for the newly established nation. Seals were used less frequently as literacy increased. With the introduction of the gummed envelope in the 19th Century, the need for privacy was reduced. Seals became a more personal expression as well as a decorative embellishment. Today, seals serve functionally as well as symbolically. Seals represent the President, Federal agencies, States, State agencies, corporations, and notaries, to name barely a few.

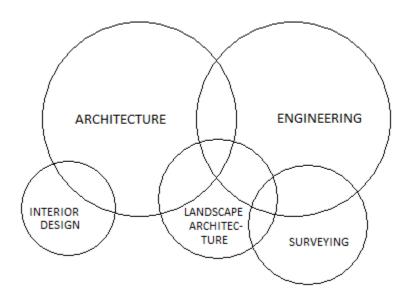


The necessity for professional seals springs directly from laws regulating the practice of the various professions. The State of Wyoming was the first to enact an engineering registration law in 1907 and was ironically, the last State, in 1951, to enact a law regulating the practice of Architecture. By 1952 all the States and territories had adopted licensing laws of some description regarding the primary technical design professions. Texas began legal regulation of both engineering and architecture in 1937. Inclusion of Interior Design in the Texas statues occurred in 1991.² The most recent regulated profession is that of landscape architecture; the Registered Landscape Architect practice Chapter became effective in 2001.³

Professional Practice Overlap

Texas building code officials and other regulatory agency personnel, as well as the licensees themselves, are often confused as to the differences between how and when, and in what manner, the professions are allowed to use their seals. A frequent professional conduct violation concerns sealing improprieties. Sealing improprieties sometimes stem from the fact that there exists areas of overlap or common practice among the professions of Architecture, Engineering, Surveying, Landscape Architecture, and Interior Design. Setting aside any nefarious activity, one of the leading forms of impropriety occurs when the licensee incorrectly affixes a seal to work for which the licensee is not privileged to undertake. In order to appreciate the problems that sometimes arise from the use of the various professional seals, it is useful to study these areas of technical overlap or common practice.

Let's utilize set theory to diagrammatically examine the scope and purview of the professions. Look at the figure below. Each circle is intended to graphically represent the total practice scope of each profession. The overlapping areas of the five professional practices (sets) represent the legally implied, and generally accepted, common practice areas. You may recall that in set theory these common areas are known as *intersections*. We will address each one of these intersections individually as we progress through the course.



As an example, let's examine the intersection of Architecture and Engineering.

Comparing Apples to Oranges or Comparing Apples to Pears?

Everyone knows the difference between the practice of Architecture and the practice of Engineering, right? Well obviously not. A broad range of viewpoints exists among the various States and territorial jurisdictions with regard to this matter. Any analysis that examines the recent actions of the various Texas courts quickly reveals a difference in what is interpreted as allowable legal practice between the two. Individual State-to-State statutory definitions range, on one end, with little or no distinction between the two professions, to the extreme of an apparent monopoly of professional authority being granted to one or the other. Texas law falls in the middle of this range, setting out limited legal specifics in defining the practice bounds of the two professions.

That a difference exists between Architecture and Engineering is not an issue; the precise difference is sometimes, however, nebulous. It is generally held that Architecture is the profession of designing buildings for human habitation and occupancy; Engineering, among other things, is the profession of designing structures, to include buildings, and the various elements of utility that comprise the structure and make it functional. Although overly simplistic, Architecture is often discriminated from En-



gineering through the emphasis of interior and exterior aesthetics, and form and function with regards to occupancy and use. Key phrases often used in the practice description of Architecture are: use, order, and beauty through the resource of design and the call for artistic and technical ability.⁴

Past Attorney General opinions and court rulings regarding *comprehensive building design* have only held that the professions of Architecture and Engineering are in fact distinct while simultaneously experiencing overlap. These declarations and decisions have fallen short of providing any specifics of how the practice of the two professions are precisely different under Texas law.

Although not universally accepted across the technical community, the National Council of Architectural Registration Boards

(NCARB) holds that Architects, by their education and internship, are the only design professionals properly prepared to coordinate all the design disciplines and manage the typical building project.⁵ Texas regulating Boards have jointly determined that the building owner, *i.e.* the client, should in all

cases determine whether an Architect or an Engineer should be the prime design professional of a project.⁶

The two professions are often coupled together in legal passages by the phrase "architect <u>or professional engineer</u>" [underscored emphasis added]. This implies that regulatory officials should accept the work products of either, with more or less equal regard. Let's take a look at a typical example⁷:

Plans and specifications . . . shall be submitted to the [Texas Department of Licensing and Regulation] by the architect, interior designer, landscape architect, or engineer who has overall responsibility for the design of the constructed or reconstructed building or facility. The architect, interior designer, landscape architect, or engineer shall submit the plans and specifications to the department not later than the fifth day, not including Saturdays, Sundays, and legal holidays, after the date on which the architect, interior designer, landscape architect, or engineer, as appropriate, issues the plans or specifications.

Incidental Practice Activities

Engineering Incidental to the Practice of Architecture

Incidental practice is defined as the act of conducting non-customary professional activities, which are minor or subordinate in nature, which support the primary, legally licensed practice activity. Incidental practice, while limited, is a practical reality. Incidental practice is directly legally addressed in many States. The absence of specific statutory language pertaining to the allowed incidental practice of Architecture or Engineering in Texas may have contributed to historical disagreements between the regulating Boards concerning their respective authority regarding building design. With a hindrance of opposing conditions between the professions, the Architecture Rule⁸ does define the scope of architectural plans and specifications and goes on to delineate what documents can be produced by either Architects or Engineers:

Notwithstanding the thresholds within Chapters 1001 and 1051, Texas Occupations Code, the following plans and specifications may be prepared by a person who is registered as an Architect or licensed as a professional engineer in the State of Texas:

(1) Site plans depicting the location and orientation of the building on the site based upon a determination of the interrelationship of the intended use with the environment,

topography, vegetation, climate, geographic aspects, and the legal aspects of site development, including setback requirements, zoning and other legal restrictions as well as surface drainage;

- (2) The depiction of the building systems such as structural, mechanical, electrical, and plumbing systems in plan views, in cross sections depicting building components from a hypothetical cut line through a building, and in details of components and assemblies specifically including any part of a building exposed to water infiltration or firespread considerations;
- (3) Life safety plans and sheets with code analyses; and
- (4) Plans for a building that is not intended for human use or occupancy.8

Surveying Incidental to the Practice of Engineering

The fact that certain non-cadastral surveying functions are critical components to engineering and construction endeavors is without question. Some of these functions are horizontal and vertical control,

construction layout, and earthwork quantity determination. The framers of the Texas Engineering Practice Act were obviously aware of this, as evidenced by the inclusion of incidental surveying activities within the definition of the practice of Engineering. None of the current civil engineering projects which are present today would be possible without the benefit of *engineering surveys*, this specific term being included in the definition of Engineering. In order to qualify this important engineering function and to clearly differentiate it from cadastral or land surveying, the Engineering Practice Act specially states that,



The term [engineering survey] does not include the surveying of real property or other activity regulated under the [Land Surveying Act].⁹

Architecture Incidental to the Practice of Interior Design

To the extent that the interior space protection of the public with regards to health, safety, and welfare is provided, Registered Interior Designers' services legally embody the preparation of docu-

ments for non-load bearing construction, fixtures, equipment, and furnishings.¹⁰ Unlike Architecture and Engineering, the practice bounds of Interior Designers are legally unambiguous.¹¹

Sealing and Certification

The purpose of certification of technical documents is to attest to the preparation of the documents by the licensee or under the licensee's supervision and control. Merely reviewing the work prepared by an unlicensed or unregistered non-employee does not constitute *supervision and control*.

Although often used interchangeably, the terms sealing and certification are not synonymous. A seal is only one component of a legitimate certification. At a minimum, two additional components, a signature and a date, are also required. Examples of each design profession's required certification are shown below.¹²

Architects, Landscape Architects, and Interior Designers

The outer ring of the seal must be a minimum of $1\frac{1}{2}$ inches in diameter. The signature and date must be placed across, adjacent, or beneath the seal. The signature and date must not obscure the name of the registered professional or the registration number on the seal. Examples follow:



Professional Engineers

The outside diameter of the seal must range between 15% and 2 inches. The specified seal design, properly signed and dated, is shown below:



Engineers who became licensed before September 1, 1997 are allowed to substitute the word *registered* for the word *licensed* shown above. The seal shall contain any given name or initial combination with the surname as currently listed with the board and in the usual written signature.

Land Surveyors

Texas has two types of land surveyors licensed to practice. First is the Registered Professional Land Surveyor (RPLS). This license is required for most types of surveys performed. A second and more specialized license is the Licensed State Land Surveyor (LSLS). This license is required to survey boundaries which adjoin lands owned by the State including those along rivers and the Gulf of Mexico coast. This license is required to perform surveys for Patents, Vacancies, Deed of Acquittance or other surveys requiring recordation with the Texas General Land Office (GLO). Sealing and certification by LSLSs is not covered in this course.

The seal of the Licensed Professional Land Surveyor is an octagon, the points of which are said to represent the major subdivisions around the compass. The Board has recommended that the seal size

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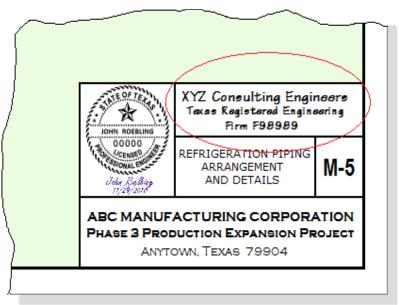
correspond to that produced when the distance across the corners of the seal is 1⁹/16 inches.¹³ An example of the specified seal design, properly signed and dated, is shown below:



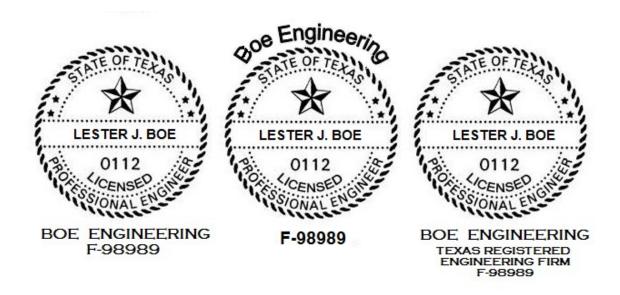
Henry D. Thoreau 11/29/2010

Professional's Firm Number

A frequent offense associated with the creation of final engineering and surveying documents is the failure of a registered firm to indicate the firm's registration number and firm name on each sheet of drawings. In the example below, ABC Manufacturing has contracted to XYZ Consulting for professional design services:



There is no steadfast rule regarding the arrangement or location of individual seals relative to the presentation of the firm name and registration number. Here are some acceptable examples:

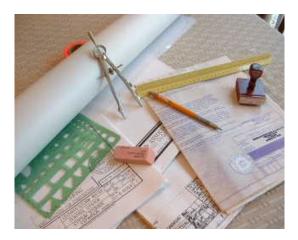


A engineering or surveying firm is defined as a sole proprietorship, firm, partnership, corporation, or joint stock association.

Facsimile Signatures

Facsimile signatures placed on original documents are prohibited. The term facsimile signature should not be confused with the signature produced by the transmission of a scanned document containing an original signature, *i.e.*, "faxed". A facsimile signature is one graphically produced by computer, or by a stamp, or otherwise not directly by hand. It is perfectly acceptable to duplicate an original hand signature via electronic transmission.

Drawing Classifications



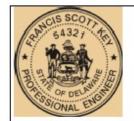
Construction documents are usually composed of working drawings, specifications, and occasionally other contract documents such as Shop Drawings and Standard Design Plans. A working drawing, or design drawing, is characterized by the exhibition of a total result achieved by the integration of various elements and systems; they are prepared under the supervisory control of the licensed design professional.

Shop Drawings

Shop drawings are limited in nature and are characterized by the indication of fabrication and/or installation details of a larger system's components. They derive their name from the fact they were originally prepared by shop personnel in the employ of a contractor. Today, shop drawings are prepared by original equipment manufacturers, contractors or their subcontractors, or other specialists, such as fabricators, that are not under professional licensee supervisory control. They must be reviewed by the Texas licensed professional responsible for the project in which they form a part. ¹⁴ There is no specific statutory reference to a requirement for the affixing of a professional seal.

Standard Design Plans

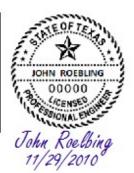
Standard Design Plans are those documents associated with buildings, structures, or electrical and mechanical installations that graphically depict items of a typical nature that do not require or represent special features unique to the design to which they will be incorporated or appended. In Texas laws standard design plans are referred to as *prototypical design construction documents*. When used they must be thoroughly reviewed and modified, if necessary, for adaption to specific local conditions. A typical certification might look something like:



PROTOTYPICAL DESIGN DOCUMENT

These plans have been properly examined by the undersigned. I have determined that they comply with existing local Texas codes, ordinances, and regulations, and have been properly site adapted for use in this area.

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Technical Reports and Specifications

If architectural specifications are issued in a bound grouping that includes a table of contents or index listing each specification, the seal/signature/date must be placed in at least one conspicuous location on the bound document. Any individual architectural specification sheet that is issued separately must be sealed/signed/dated individually. In the special case of an architectural feasibility study, only the associated plans and specifications need certification. Depending on the content of the study, a qualifying statement may be appropriate indicating their incomplete or preliminary nature. Engineering work that is required to bear a seal and signature includes the original title sheet of bound engineering reports, specifications, details, calculations, and estimates. All other engineering work, including but not limited to research reports, opinions, recommendations, evaluations, documents produced for litigation, and engineering software, only require the engineer's printed name, date, and signature. A seal may be added on such work if requested or at the engineer's discretion. In the special case of an architectural season sheet that is issued separately must be placed in at least one conspicuous season sheet that is issued season

Where Else Should Seals be Placed?

The sealing rules apply to each sheet of architectural drawings, tables of contents and indexes that list specifications in bound groupings, each sheet of specifications not listed in an index or table of contents, sheets that identify the project and that contain a list of sealed construction documents. If any of these construction documents are issued in electronic format, the sealing rules regarding placement apply in the same manner as if the document were issued on paper.³ Each original sheet of engineering plans or drawings, regardless of size or binding, must be sealed.¹⁶

Assignment of Professional Responsibility

It is common for technical submissions and engineering documents to contain drawings prepared by several professionals. The drawings must be certified by all of the professionals responsible for the preparation of the documents. Therefore, one technical submissions package may contain drawings that bear the seal and certification of more than one licensed professional. Contributing professionals should place their respective certifications at appropriate locations. If necessary, notations can be used to describe the work done under each license holder's responsible charge.

If professional land surveying is performed as a joint venture of an association of two or more firms, each firm shall use the seal of the surveyor having primary responsibility for the venture.

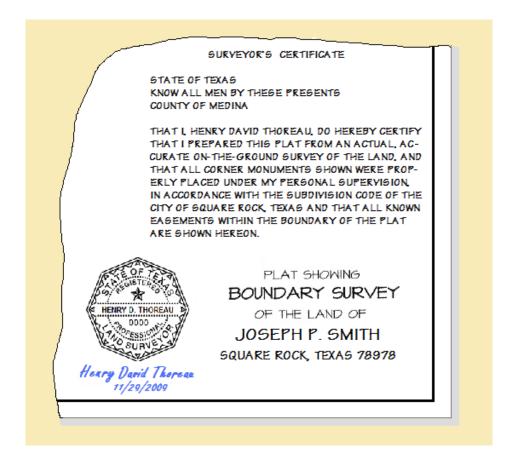
Qualified and Unique Certifications

Unfortunately, in a complex world, simple straightforward sealing and certification is not always possible. Qualified certifications exist in order to make allowances for these situations.

Licensed Land Surveyor Certifications

None of the regulated professions has specific minimum practice standards and guidelines legally set forth to the extent as Land Surveying. Minimum acceptable standards are included directly in the Rules.¹⁷ Included in the standards are the requirements for additional certification statements. The statements vary in form and content depending on the type of survey performed and the methodology employed.

Texas counties and municipalities may also, and often do, impose special certification requirements in addition to those just mentioned. These certifications can require statements regarding the adherence to a specific subdivision ordinance, or to the existence of encroachments or easements, and additional statements regarding the accuracy of the survey, the resulting plat, or both. Licensed Surveyors should periodically review these local laws carefully for possible changing certification requirements for recordation plats. As an example, a limited portion of a plat for a hypothetical land boundary survey might look something like:



Sealing and Signing Work Prepared By Others

Under certain circumstances, licensees may affix their seals to work not produced by the licensee or under the licensee's direct supervision. In so doing, the adopting design professional is seen as accepting all responsibility for the work as though the licensee had personally prepared all the documents. Application of the Texas seal is a testament that a thorough review of the adoptive work has been conducted verifying equivalent professional accomplishment. Architects should be guided by the information previously presented on page 13 for Standard Design Plans.

While this "adoption" provision initially appears to run counter to the NCEES model rules of practice¹⁸, these same model rules state that in special circumstances, *successor licensees* may take responsible charge of certain non-original work by performing all of the professional services associated with these works.¹⁹

The adopting licensee may alter, complete, revise, or add to the work of another license holder when so engaged to do so by a client. The engineering practice law lists the following provisions for adoption:

- 1. Adoptive source materials must be those provided to the client by the original design professional;
- 2. The adopting licensee must provide written notification to the original author immediately upon engagement.

A Registered Professional Land Surveyor is allowed to rely on record data related to the determination of boundaries furnished by a qualified source, provided a reasonable belief exists that such data is sufficient, and provided references are noted and documentation credits are given.

Non-mandatory Guidelines

In guiding the reader of this course with regards to professional successorship and document adoption, relevant areas of various generally accepted nationally recognized rules of professional conduct^{20, 21} have been paraphrased and assembled below with pertinent underscored emphasis added by this author.

- 1. Design professionals shall not misrepresent or exaggerate their responsibility in subject matter.
- 2. Design professionals shall not imply credit to themselves for work performed by others.
- 3. Design professionals shall not review the work of another professional except with the knowledge of such professional.
- 4. Design professionals shall give credit for technical work to those to whom credit is due and will recognize the proprietary interests of others.
- 5. Design professionals shall name the person or persons who are individually responsible for designs, writings, or other accomplishments.

Temporary Practice

Many States grant temporary licensure to persons who hold a license in another State. This can entail the use of the temporary licensee's foreign professional seal in conjunction with a specific project or for a specified limited period of time. There are no provisions for a temporary license in Texas. Non-Texas architects who wish to practice in Texas must do so in close consultation with a Texas Registered Architect. Documents produced as a result of such a consultation would bear the seal, signature, and date of the Texas licensee who then accepts professional responsibility.

Document Distribution and Control

Simple, straight forward, single-event sealing and certification is not always possible in real world business conditions. Special consideration must be given to these situations.

Interim or Preliminary Documents

Documents or copies of documents that are beyond the confines of a design professional's office, or, otherwise out of his possession and control, are defined as *released*. Released documents can only fall into two categories: (1) Preliminary (or incomplete), and (2) Final. Work that is preliminary or incomplete must be designated as such. This makes sense when one contemplates the following logic:

The technical professions are licensed to protect the public. The sole purpose of the sealing exercise is to certify that plans and technical documents have been prepared by, or with the oversight of, a licensed professional. However, the general public cannot, and should not, be expected to apprise itself of the legal nuances associated with sealing requirements. Consequently, it logically follows that preliminary or incomplete documents should be clearly and conspicuously so noted to remove any chance of misunderstanding.

Released preliminary or incomplete documents should not be sealed or signed. They should be dated and identify the authoring professional(s) and registration number(s). They should contain statements clearly identifying them as preliminary or incomplete. A typical example might be:

PRELIMINARY

NOT TO BE USED FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

Preliminary documents released from a surveyor's control shall identify the purpose of the document, the surveyor of record and the surveyor's registration number, and the release date. Such preliminary documents shall not be signed or sealed and shall bear the following statement in the signature space:

PRELIMINARY

THIS DOCUMENT SHALL NOT BE RECORDED

FOR ANY PURPOSE AND SHALL

NOT BE USED OR VIEWED

OR RELIED UPON AS A FINAL SURVEY DOCUMENT

Change Orders, Field Changes, and Addenda

Design and scope changes are inevitable during the normal course of a project's development. Change orders, field change requests, responses to requests for information (RFIs), and other addenda are considered as technical documents. As such, they warrant certification. It is the responsibility of the licensee to forward copies of all revisions to technical and engineering documents, which shall become a part of the official copy of the submissions. These revisions must be identified as applicable with professional seals applied so as to clearly establish professional responsibility for the revisions.

Records Retention

Architectural design professionals must maintain a copy of sealed, signed, and dated documents that are released for regulatory approval, permit, or construction purposes for a period of 10 years from the date of substantial completion of the project.

Seal Forms



Professional seals have undergone quite an evolutionary development. The first professional seals were devices which deformed the paper of the document through impression of the seal by embossing. Close inspection and feel of embossments provided the necessary tactile response to verify certification authenticity. Unfortunately they were not highly visible and were difficult to reproduce photostatically. The very nature of the embosser limited the placement of the seal near the edges of a given document. Embossed seals are still used and available today although their use was significantly diminished by the rise in popularity of the rubber stamp and ink pad in the 1960s. The stamp afforded ease of use, portability, and

placement of the seal anywhere on the document. For a period, nationally at least, the use of appliqué ("stick-on" or "sticky-back") seals became popular. Seals should be a permanent and archival addition to the technical document; therefore, application of superficial media is not allowed.²² Today, of course, seals graphically generated via computer software are the norm.

The key recurring legal requirement throughout the Acts and Rules is that the seal must be clearly and legibly visible when copied or reproduced, irrespective of the form of the seal. Consequently, impression or embossing forms of the seal, while not prohibited, are generally unacceptable.

Electronic Seals and Document Transmission

The term *electronic* with regards to technical documentation simply means: of, implemented on, or controlled by a computer or computer network. All of the professions allow seals, signa-



tures, and technical documents to which they are affixed, to be produced and issued electronically. The sealing rules apply to documents issued in electronic format in the same way they apply to documents printed on paper. The Surveying Rule requires that all electronically issued documents have a retained, sealed, signed, and dated "hard copy" backup. Seals of resulting smaller sizes than that previously specified are allowed for electronic seals as long as as the registered professional's name and license number are clearly legible. Of course, electronic media cannot be used when other governmental agencies, local jurisdictions, or clients insist on original seals and signatures on reproduced documents.

Electronic signatures should not be confused with digitally encrypted signatures. An electronic signature is merely an electronic facsimile of an original handwritten signature which is appended to an electronically produced or transmitted document. A digital signature on the other hand is a specific type of electronic signature that is based on asymmetric cryptography. Digital signatures are not addressed in the law but a recommendation for document encryption has been made.²³

It is beyond the scope of this course to provide an exhaustive treatment of electronic certification. Suffice it to say that this is a complex subject, and there has yet to be an emergence of an accepted commercial standard protocol. There are a few important points that should be known by those who are not currently using this relatively new technology.

Secure certifications are created by special software which uses a combination of a pair of keys called the public key and the private key. In essence, the sender encrypts the original document intended for electronic transmission using special software and electronically certifies (signs) the document using the private key. The receiver of the electronically transmitted document must use the public key to first decrypt the electronic signature in order to gain access to the encrypted document. He then uses the same special software owned by the sender, to decrypt the document itself. The special software insures that unauthorized recipients do not have the capability to decrypt the encrypted secure signature, the encrypted document, nor can they back-convert the encrypted document to its original form.

Seal Security and Control



Reasonable steps must be taken to insure the security of seals, both physical seals and electronic seals and electronic signatures. With regards to the latter, responsible security measures must be established to protect electronic files which generate encrypted media. Comprised electronic files or the loss of a physical seal should be reported immediately to the respective Board.

Exemptions from Sealing

Exemptions are specific situations that are granted relief from established law. Under the Statues and Rules there are several sections that provide exemptions from the licensure requirements when working on building projects and systems. These include some specific exemptions from the practice laws for public works and private sector projects, depending on the type of project and the monetary value. While it may be important for licensed or registered professionals to have a clear understanding of the legal capabilities of unlicensed individuals with regard to these activities, professionals are nevertheless required to apply their seals to any of their work products that would otherwise be considered exempt.²⁴

The Industrial Exemption

Technical employees of private manufacturing concerns who conduct their own internal activities have enjoyed an exemption from the Architectural, Engineering, and Surveying laws since the very inception of their enactments. This exemption was granted based on the proposition of limited exposure and risk to the general public generated by these private activities. The Boards reserve the right to require professional certification of designs of certain manufactured products if necessary to



protect the public health, safety, and welfare. The State Attorney General has rendered several significant opinions interpreting the practice Act by which the Texas Board of Professional Engineers is guided. Opinion MW-384 clarifies the so called "industry exemption" for unlicensed individuals, concluding that the "in-house" designation of "engineer" without being licensed, is permissible so long as the public is not mislead into believing the individual is a registrant.

The stance of limited external impact by private operations changed with heightened emphasis and interest in environmental issues in the early 1970s. It is obvious now that emissions and discharges of pollutants to air, surface and ground water, can potentially impact the life, health, safety, and property of the public. Since these emissions are not limited to the boundaries of the industrial property, industrial facilities no longer enjoy omnibus exemption. The internal activities of private industry which may potentially impact the public are regulated by the current practice laws. For example, the Texas Commission on Environmental Quality (TCEQ) requires that geoscientific information relating to private industry subsurface disposal of treated effluent be prepared by a Professional Engineer and that engineering certification be provided for liners for the protection of groundwater from wastewater evapotranspiration beds.²⁵

Sealing Exemptions Can Be Superseded

It is an oversimplification to assume that the sealing exemptions previously mentioned are without occasional enforced variation. As it turns out, the applicability of local ordinances, regulations, or building codes may invoke more stringent certification requirements. A perfect example is one in which certain Texas localities, who wish to participate in the Federally subsidized National Flood Insurance Program (NFIP), must incorporate into their building code ordinance, phraseology mandated by the Federal Emergency Management Agency. Because of this Federal regulation, the building plans for some residential structures situated in flood prone areas, which would otherwise be exempt, may fall under the Texas statutes.

Summary

- 1. The use of seals to indicate authenticity dates back to antiquity B.C. in the Old World and back to the colonial period in the United States. The use of technical professional seals in Texas for document certification began in the first quarter of the twentieth century.
- 2. Document sealing and certification in Texas is strictly controlled through Statues and Codes, all of which are dynamic. It is incumbent upon licensed and registered professionals to be knowledgeable of these regulations.
- 3. Practice overlap exists among the licensed technical professions; this fact can contribute to sealing improprieties. According to the Architecture Rule, either Architects or Engineers can generate site plans, floor plans depicting superimposed mechanical and electrical systems, and building plans relating to waterproofing and life safety considerations. Either can design buildings not intended for human occupancy or usage.
- 4. Only final documents should receive certification consisting of sealing, signing, and dating. Documents preliminarily released must be clearly labeled as such and should not be sealed.
- 5. Acceptable seal forms are embossments, stamps, computer generations, and electronic transmissions. Regardless of form, the seal must be clearly and legibly visible when copied or reproduced.
- 6. Exemptions to the Statues and Rules currently exist and are dynamic. For this reason, licensed technical professionals must stay abreast of changes to the numerous governing regulations.

Design professionals play a critical role in the public building process. The quality of their service is certainly one of the most important factors in insuring the safety, health, and protection to the natural and built environment. As the first steps in the construction process, a design, and the authenticity of the resulting technical submissions and engineering documents, is intuitively obvious. It is believed that most Texas licensed technical professionals intend to conduct their practice in compliance with the applicable laws of their respective professions and that they are respectful of the laws of professions who may have overlapping, common practice. Infractions or violations of seal use among the regulated professions often occur simply because the licensee is not aware of the various Board's Rules and the Texas Statues.

Additional Resources

The list that follows contains the names, addresses, telephone numbers, and e-mail addresses of organizations and agencies which play an important role in regulatory affairs of Texas registered and licensed technical professionals. They can be contacted directly regarding any additional information or for clarifications needed on acceptable sealing and certification practices.

- 1. Texas Board of Architectural Examiners, Hobby Building, 333 Guadalupe, Suite 2-350 Austin, Texas 78701, (512) 305-9000, www.tbae.state.tx.us.
- 2. Texas Board of Professional Engineers, 1917 IH 35 South, Austin, Texas 78741-3702, (512) 440-7723, www.tbpe.state.tx.us.
- 3. Texas Board of Professional Land Surveying, 2100 Park 35 Circle Building A, Suite 156 MC 230 Austin, Texas 78753, (512) 239-5263, www.txls.state.tx.us.
- 4. National Council of Architectural Registration Boards, 1801 K Street NW, Suite 700-K, Washington, DC 20006, (202) 879-0520, Facsimile (202) 783-0290, e-mail: customerservice@ncarb.org.
- 5. Texas Society of Professional Engineers, Post Office Box 2145, Austin, Texas 78768-2145, (512) 472-9286, (800) 580-8973 (in Texas), e-mail: webmaster@tspe.org
- 6. National Society of Professional Engineers, 1420 King Street, Alexandria, Virginia 22314-2794, (703) 684-2800, Facsimile (703) 836-4875, www.nspe.org.
- 7. American Institute of Architects, 1735 New York Avenue NW, Washington, D.C. 20006-5292, (800) 242-3837, Facsimile (202) 626-7547, e-mail: infocentral@aia.org.
- 8. Texas Society of Professional Surveyors, 2525 Wallingwood Drive, #300, Austin, Texas 78746, (512) 327-7871.
- 9. National Society of Professional Surveyors, 6 Montgomery Village Avenue, Suite 403, Gaithersburg, Maryland 20879, (204) 632-9716, Facsimile: (204) 632-1321, e-mail: curtis.sumner@acsm.net.
- 10. American Society of Interior Designers, Texas Chapter, 1444 Oak Lawn Avenue, Suite 501, Dallas, Texas, 75207, (214) 748-1541, email: txasid@airmail.net
- 11. Texas Society of Architects, 816 Congress Avenue, Suite 970, Austin, Texas 78701-2443, (512) 478-7386.
 - Austin TX 78753, Phone:(512)239-5263, www.txls.state.tx.us.
- 12. The Council of Landscape Architectural Registration Boards (CLARB) 3949 Pender Drive Suite 120 Fairfax, VA 22030, (571)-432-0332, e-mail: dludwig@clarb.org

References

- 1. Nostalgic Impressions Incorporated, Post Office Box 1309, Selden, New York 11784, ©2003, www.nostalgicimpressions.com.
- 2. McLaughlin, Pat Campbell, ASID, RID, McLaughlin Collection, Clear Design Solutions, 3525 Turtle Creek Boulevard #18E, Dallas, Texas 75219, (214) 528-1828.
- 3. *Bulletin*, Volume VI, Issue 1, Summer 2001, Texas Board of Architectural Examiners, Austin, Texas.
- 4. North Carolina Office of Administrative Hearings, Rules Division, Administrative Code, Title 21, Chapter 2, Architecture.
- 5. Architecture As It Differs From Engineering, National Council of Architectural Registration Boards, Washington, D.C., April 1995.
- 6. *Bulletin*, Volume III, Issue 1, Summer 1998, Texas Board of Architectural Examiners, Austin, Texas.
- 7. Texas Civil Statues, Article 9102, §5(k), Architectural Barriers Act.
- 8. Texas Administrative Code, Title 22, Part 1, Chapter 1, Subchapter K, §1.2101(c).
- 9. Texas Occupations Code, Title 6, Subtitle A, Chapter 1001, Subchapter A, §1001.003(a)(2).
- 10. Texas Occupations Code, Title 6, Subtitle B, Chapter 1051, Article 1, Subchapter A, §1051.001(3).
- 11. Texas Occupations Code, Title 6, Subtitle B, Chapter 1053, Subchapter A, §§1053.002 and 1053.003.
- 12. Private use of any Texas State seal is restricted by law. Texas State seals may not be used for commercial purposes by unauthorized individuals. It is held that the consequential commercial use of the seals displayed in this course is subordinate to the primary purpose of education. Therefore, their use herein is believed to be consistent with the intent of the law.
- 13. Seal Manual, Marking Device Association International, Matthews, North Carolina, 2001.
- 14. Texas Occupations Code, Title 6, Subtitle A, Chapter 1001, Subchapter A, §1001.003(a)(1) and (c)(2).
- 15. *Licensing News*, Volume IX, Issue 1, March 2004, Texas Board of Architectural Examiners, Austin, Texas.
- 16. Texas Administrative Code, Title 22, Part 6, Chapter 137, Subchapter B, §137.33(f)(2) and (3).
- 17. Texas Administrative Code, Title 22, Part 29, Chapter 663, Subchapter B.

- 18. National Council of Examiners for Engineering and Surveying, Model Rules of Practice, Section 240.20.C.5.b, Seal on Documents, Clemson, South Carolina, August 2003. Society of Professional Engineers, Alexandria, Virginia.
- 19. *Ibid,* Section 240.20.C.7.
- 20. *NSPE Code of Ethics for Engineers*, National Society of Professional Engineers, Alexandria, Virginia.
- 21. Code of Ethics, American Society of Civil Engineers, Reston, Virginia.
- 22. Texas Administrative Code, Title 22, Part 6, Chapter 137, Subchapter B, §137.31(b).
- 23. Clark P.E., C.W., Compliance & Enforcement Director, Texas Board of Professional Engineers, Austin, Texas, <u>Engineering Express</u>, No. 35, Summer 2008.
- 24. *Bulletin*, Volume IV, Issue 1, Summer 1999, Texas Board of Architectural Examiners, Austin, Texas.
- 25. Completing the Industrial Wastewater Permit Application, Form TCEQ-10411/10055 Instructions, Texas Commission on Environmental Quality, March 2009.